EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

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Glossary of Terms

AB	Assembly Bill
ACHP	Advisory Council on Historic Preservation
ADT	Average Daily Traffic
AF	Acre-Feet
AFY	Acre-Feet per Year
AMR	American Medical Response
APCO	Air Pollution Control Officer
APSA	Aboveground Petroleum Storage Act
AQIA	Air Quality Impact Analysis
AQMP	Air Quality Management Plan
ARB	Air Resources Board
ASCE	American Society of Civil Engineers
ASTM	American Society of Testing and Materials
BACM	Best Available Dust Control Measures
BGS	Below Ground Surface
BLM	Bureau of Land Management
BMP	Best Management Practices
BPD	Blythe Police Department
BSC	Building Standards Commission
BTU	British Thermal Unit
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CAFE	Corporate Average Fuel Economy
CalARP	California Accidental Release Prevention Program
CALGreen	California's Green Building Standards
CalEPA	California Environmental Protection Agency
CalEEMod	California Emissions Estimator Model™
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CalRecycle	Department of Resources Recycling and Recovery
CAP	Climate Action Plan
CARB	California Air Resources Board
CBC	California Building Code
CCAA	California Clean Air Act

CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEC	California Energy Commission
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act (Superfund)
CERS	California Environmental Reporting System
CESA	California Endangered Species Act
CEQA	California Environmental Quality Act
cf	Cubic feet
CFGC	Californian Fish and Game Code
CFR	Code of Federal Regulations
C-G	General Commercial
CGP	Construction General Permit
CH_4	Methane
CHP	California Highway Patrol
CIWMB	Countywide Integrated Waste Management Board
CL	Silty Clay (soil type)
CMA	Congestion Management Agency
CMP	Congestion Management Plan
CMS	Congestion Management System
CNEL	Community Noise Equivalent Level
CO	Carbon Monoxide
CO_2	Carbon dioxide
CO_2e	Carbon dioxide equivalent
CPP	Clean Power Plan
CPUC	California Public Utilities Commission
CRHR	California Register of Historical Resources
CUPA	Certified Unified Program Agencies
CWA	Clean Water Act
dBA	A-weighted decibel
DCC	Department of Cannabis Control
DDW	State Division of Drinking Water
DEH	Riverside County Department of Environmental Health
DEIR	Draft Environmental Impact Report
DOF	Department of Finance
DOSH	Division of Occupational Safety and Health
DOT	United States Department of Transportation
DPR	Department of Pesticide Regulation

DTSC	Department of Toxic Substances Control
DWQ	Department of Water Quality
DWR	California Department of Water Resources
EAP	Energy Action Plan
ECHO	Enforcement and Compliance History Online
EIC	Eastern Information Center
EIR	Environmental Impact Report
EISA	Energy Independence and Security Act of 2007
EOC	Emergency Operations Center
EPA	Environmental Protection Agency
EPCRA	Emergency Planning and Community Right-To-Know Act
EPO	Environmental Protection and Oversight Division
ESA	Environmental Site Assessment
EV	Electric Vehicle
°F	Fahrenheit (degrees)
FAA	Federal Aviation Agency
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
FESA	Endangered Species Act
FHSZ	Fire Hazard Severity Zones
FHWA	Federal Highway Administration
FIRM	Flood Insurance Rate Map
FTA	Federal Transit Administration
GCC	Global Climate Change
GHG	greenhouse gas
GHGA	Greenhouse Gas Analysis
GIS	Geographic Information Systems
GP	General Plan
GPM	Gallons Per Minute
GPS	Global Positioning System
GSA	Groundwater Sustainability Agency
GWh	Gigawatt Hours
HCP	Habitat Conservation Plans
HCFC	Hydrochlorofluorocarbons
HFC	Hydrofluorocarbons
HID	High Intensity Discharge bulbs
HMBP	Hazardous Materials Business Plan Program
HPS	High-Pressure Sodium

HSC	Health and Safety Code
HWCL	Hazardous Waste Control Law
I-10	Interstate 10
ISO	Independent System Operator
ISTEA	Intermodal Surface Transportation Efficiency Acts
ITE	Institute of Transportation Engineers
KV	Kilovolts
LED	Light-Emitting Diodes
LEED	Leadership in Energy and Environmental Design
LEPC	Local Emergency Planning Committee
Leq	Equivalent Continuous Noise Level
LHMP	Local Hazard Mitigation Plan
LOS	Level of Service
LRA	Local Responsibility Areas
LTCP	Low Threat Closure Policy
LUST	Leaking Underground Storage Tank
MAF	Millon Acre Feet
MBTA	Migratory Bird Treaty Act
MC	Municipal Code
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
mgd	Million Gallons Per Day
MH	Metal Halide
MMRP	Mitigation Monitoring and Reporting Program
MMT	Million Metric Tons
$MMTCO_2e$	Million Metric Tons of Carbon Dioxide emissions
MRZ	Mineral Resource Zone
MS4 Permit	Municipal Separate Storm Sewer System Permit
$MTCO_2e$	Metric Tones of Carbon Dioxide emissions
MUTCD	Manual on Uniform Traffic Control Devices
MW	Megawatt
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NETR	Nationwide Environmental Title Research
NFIP	National Flood Insurance Program
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health

NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
N_2O	Nitrous Oxide
NO_2	Nitrogen Dioxide
NOA	Notice of Availability
NOC	Notice of Completion
NOI	Notice of Intent
NOP	Notice of Preparation
NO_X	Nitrogen Oxide
NRHP	National Register of Historic Places
O_3	Ozone
OEHHA	Office of Environmental Health Hazard Assessment
OES	Office of Emergency Services
ONAC	Federal Office of Noise Abatement and Control
OPR	Office of Planning and Research
OSHA	Occupational Safety and Health Administration
Pb	Lead
pcf	Pound per cubic foot
PFC	perfluorocarbons
PHMSA	Pipeline and Hazardous Materials Safety Administration
PM_{10} / $PM_{2.5}$	Particulate Matter (10 Microns / 2.5 Microns)
Ppm	Parts per million
PPV	Peak Particle Velocity
PRC	Public Resources Code
psf	Pounds per square foot
PVID	Palo Verde Irrigation District
PVVTA	Palo Verde Valley Transit Agency
Qa	Alluvium (soil type)
PWS	Public Water System
RCA	Resource Conservation Areas
RCDWR	Riverside County Department of Waste Resources
RCFD	Riverside County Fire Department
RCRA	Resource Conservation and Recovery Act
RCTC	Riverside County Transportation Commission
RIVTAM	Riverside Transportation Analysis Model
RMA	Resource Management Areas
RMP	Risk Management Plans
ROG	Reactive Organic Gas

RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SC	Clayey Sand (soil type)
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCS	Sustainable Communities Strategy
SDS	Safety Data Sheets
SDWA	Safe Drinking Water Act
SERC	State Emergency Response Commission
SF_6	Sulfur Hexafluoride
SFHA	Special Flood Hazard Areas
SGMA	Sustainable Groundwater Management Act
SHMA	Seismic Hazards Mapping Act
SHPO	State Historic Preservation Officer
SIP	State Implementation Plans
SO_2	Sulfur Dioxide
SoCalGas	Southern California Gas Company (The Gas Company)
SOX	Sulfur Oxides
SP	Sand (soil type)
SPL	Sound Pressure Level
SQG	Small Quantity Generator
SRA	State Responsibility Areas
SWP	State Water Project
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAZ	Traffic Analysis Zone
TCR	Tribal Cultural Resources
TEA-21	Transportation Equity Act for the 21st Century
TIP	Riverside County Transportation Improvement Plan
THPO	Tribal Historic Preservation Officer
TPPS	Transportation Project Priority Study
TRI	Toxics Release Inventory
TS	Traffic Study
TUMF	Transportation Uniform Mitigation Fee
UBC	Uniform Building Code

UID	Unique Identifier
USACE	United States Army Corps of Engineers
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGBC	United States Green Building Council
USGS	United States Geological Survey
UST	Underground Storage Tank
UWMP	Urban Water Management Plan
UWMPA	Urban Water Management Planning Act
VdB	Vibration Level
VHFSZ	Very High Fire Severity Zone
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compounds
WDID	Waste Discharge Identification
WSC	Western Science Center
WQMP	Water Quality Management Plan
WWTP	Wastewater Treatment Plant
ZE/NZE	Zero- and near-zero-emission

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This Draft Environmental Impact Report (Draft EIR) was prepared by the City of Blythe (City) with the assistance of MSA Consulting, Incorporated. Report preparers and consultants are identified as follows, along with agencies, and individuals that provided information used to prepare this Draft EIR.

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Along with a list of EIR prepares, a list of public agencies, organizations and persons consulted for the EIR is included below, compliant with CEQA Guidelines Section 15129. The following list includes agencies that responded to the Notice of Preparation (NOP) or commented on the DEIR (listed in alphabetical order).

- California Department of Fish and Wildlife (CDFW)
- California Department of Cannabis Control (DCC)
- Cares CA
- Native American Heritage Commission (NAHC)

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Chapter 1.0 Executive Summary

1.1 Overview of the Executive Summary

This chapter has been prepared pursuant to Section 15123 of the California Environmental Quality Act (CEQA) Guidelines, which states that an Environmental Impact Report (EIR) Executive Summary shall: 1) contain a brief summary of the proposed action; 2) identify each significant effect with proposed mitigation measures that would reduce or avoid that effect; 3) identify alternatives that were designed to reduce or avoid identified significant effects; 4) identify areas of controversy known to the Lead Agency including issues raised by agencies and the public; and, 5) identify issues to be resolved including the choice among alternatives and whether or how to mitigate the significant effects.

1.2 Summary of the Proposed Action

1.2.1 Proposed Project

Existing Conditions

The project site encompasses approximately 34 acres south of Hobsonway and north of Interstate 10 freeway in the City of Blythe. The existing local area is characterized by agricultural lands to the north, west, and south, irrigation canal, vacant land, and commercial buildings to the east. In its existing condition, the property is characterized primarily by active agricultural uses consisting of cultivated row crops on approximately 26 acres of the site. The cultivated area is defined by the tilled soil rows on a relatively level ground surface.

The western, northern, and eastern edges of the property, which make up the remaining area, are distinguished by a combination of dirt access paths and earthen irrigation channels. This system of irrigation and drainage facilities is severed by the adjacent “C Canal,” located immediately east of the property. The C Canal and its irrigation delivery facilities to the property are operated and maintained by the Palo Verde Irrigation District (PVID).

The project property is within the City of Blythe’s General Commercial land use and zoning designation. General Commercial (C-G) designations within Blythe allow cannabis cultivation facilities. Properties east and west of the project are also located within Blythe’s C-G designation, while properties north and south of the project are not located within the City’s jurisdictional boundaries. According to the Riverside County Palo Verde Valley Area Plan, the areas north and south of the

proposed project (unincorporated areas of Riverside County) are designated as Rural Community – Very Low Density Residential by the County.

Proposed Project

The project site is approximately 34 acres south of Hobsonway and north of Interstate 10 freeway in the City of Blythe. The project proposes the development of twelve buildings for cannabis cultivation. The project is located within the City of Blythe's General Commercial (C-G) land use and zoning designation. Since cannabis operations is an allowable use within C-G designations, the project does not propose changes in existing land use and zoning designations.

Building one will be two stories, and 46,132 square feet total. Buildings two through twelve will be one-story and will range from 43,776 square feet to 46,848 square feet. The proposed building areas are provided in **Table 1-1, *Proposed Building Areas***, below.

Table 1-1 Proposed Building Areas (Square Feet)

Building	Stories	Building Area SF (Gross)	Building Area SF (Net)
1	2	46,132*	38,121
2	1	46,848	40,960
3	1	43,776	36,554
4	1	43,776	36,554
5	1	43,776	36,554
6	1	43,776	36,554
7	1	43,776	38,121
8	1	46,848	40,960
9	1	43,776	36,554
10	1	43,776	36,554
11	1	43,776	36,554
12	1	43,776	36,554
Total Building Area		**533,812**	**450,594**

*Building 1: First floor 43,776 SF (gross); Second floor 2,356 SF (gross)

In addition to the proposed buildings, project implementation will also include the development of associated infrastructure such as access roads, hardscape and parking areas, as well as landscape and retention areas. The proposed land use acreages are provided in the table below.

Table 1-2 Proposed Land Use Areas

Land Use	Square Foot *	Acreage	Percentage
Existing Gross Acreage	1,464,515 SF	33.62 AC	--
Proposed Hobsonway Right of Way Vacation	9,463 SF	0.22 AC	--
Proposed Net Acreage	1,473,978 SF	33.84 AC	100 %
Total Building Area (Ground Floor Area) **	531,456 SF	12.20 AC	36 %
-Buildings 1, 3-7 & 9-12	437,760 SF	10.05 AC	--
-Buildings 2 & 8	93,696 SF	2.15 AC	--
Access Roads, Hardscape & Parking	543,263 SF	12.47 AC	37 %
Landscape & Retention Areas	399,259 SF	9.17 AC	27 %

* Gross building square footages.

** Total Building Area indicated above, does not include second story acreage of Building 1

1.2.2 Implementing Actions / Other Approvals Associated with the Proposed Project

Pursuant to CEQA Guidelines Section 15367, the City of Blythe is the Lead Agency and has discretionary authority over the project. This EIR has been prepared as a Project EIR that will be used by the City as part of its consideration of all components of the project. Other responsible or trustee agencies may also use the EIR in their consideration of permitting of development within the project site. These include but are not limited to the Mojave Desert Air Quality Management District (MDAQMD), and the Regional Water Quality Control Board (RWQCB).

The City of Blythe is the lead agency under CEQA and has the principal approval authority over the proposed project. The applicant is requesting a Site Plan Approval as a part of the entitlement process. A brief summary of the Site Plan Approval is provided below and an in-depth discussion of the project's entitlement is in **Chapter 3.0, *Project Description***.

- **Site Plan Approval:** The Site Plan Approval is a process conducted by the City of Blythe to ensure that a proposed development is in conformance with the standards and guidelines established by the various City departments, including Planning, Public Works, Building Department and Fire Marshal, and Police Department. The process is intended to result in well-designed site plans and properly built projects.

In addition, the proposed project will require approval of the following plans:

- State Water Resources Control Board Colorado River Basin Region (Region 7)
  - Construction Stormwater General Permit, Notice of Intent to Comply with Section 402 of the Clean Water Act.
  - Construction Stormwater Pollution Prevention Plan (SWPPP).
- Mojave Desert Air Quality Management District
  - PM-10 Plan for compliance with Rule 403, Fugitive Dust.

1.3 Alternatives to the Proposed Project

This EIR has considered and evaluated alternatives to the proposed project pursuant to the provisions of Section 15126.6 of the State CEQA Guidelines, as amended. Section 15126.6(a) of the State CEQA Guidelines states that:

> *"An EIR shall describe a range of reasonable alternatives to the project, or the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives. An EIR need not consider every conceivable alternative to a project. Rather it must consider a reasonable range of potentially feasible alternatives that will foster informed decision making and public participation. There is no ironclad rule governing the nature or scope of the alternatives to be discussed other than the rule of reason."*

The range of alternatives evaluated in an EIR is governed by the "rule of reason" that requires evaluation of only those alternatives necessary to permit a reasoned choice. An EIR need not consider an alternative whose effects cannot be reasonably ascertained and whose implementation is remote and speculative.

1.3.1 Alternatives Considered for Evaluation

Four alternatives to the Edelweiss Sustainable Farms project were considered for evaluation and compared to the proposed project. The following provides a summary of the Alternatives. Analysis of the impacts associated with each Alternative is provided in **Chapter 7.0, *Alternatives,*** of this Draft EIR.

Alternative 1: No Project

According to CEQA Guidelines Section 15126.6 (e) the analysis of alternatives must include the specific alternative of "No Project." The purpose of describing and analyzing a No Project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. Under the No Project Alternative ("Alternative 1"), the project would remain in its current and existing condition as an agricultural lot. Seasonal farming operations would be likely to continue at the site under Alternative 1, until some future use is proposed for the commercially zoned property.

Alternative 2: Reduced Density Project

Under this Alternative, the project would develop a reduced density cannabis project. Alternative 2 would reduce the number of buildings onsite by half. This Alternative would develop buildings 1 through 6, on approximately 20 acres in the eastern portion of the site. The western portion of the site would be vacant and/or available for continued farming activities or other commercial uses. This Alternative would reduce the development and operational area, including the number of employees

thus reducing the traffic generated from this Alternative. The Alternative would require a Site Plan Review, similar to the proposed project.

Alternative 3: Cannabis Development/Leased Buildings

Under this Alternative, the property would be developed with the same number of buildings and development footprint with the commercial buildings available for lease for individual cannabis businesses. In Alternative 3, multiple cannabis businesses could lease the onsite buildings for individual cannabis-related operations. This Alternative would result in equal impacts to aesthetics, biological resources, cultural resources, geology and soils, tribal cultural resources, and utilities (sewer, telecommunications), compared to the project since both Alternative 3 and the project would develop the 34-acre site with comparable facilities. However, because the project site would not operate under one entity in Alternative 3, it is likely that the individual cannabis operations would result in increased traffic, since each operation would require their own administration offices, delivery dates, maintenance, etc., which would result in increased VMTs. As a result of the increased traffic associated with Alternative 3, air quality, energy (petroleum consumption), greenhouse gas emissions, and noise are also likely to be increased. Additionally, the project proposes sustainability features for the site to reduce water consumption and electricity consumption during cannabis operations. Under Alternative 3, the separate cannabis entities could implement their own water- and electricity-reducing methodologies, however, they may be less likely to do so because they would not benefit from the same economies of scale. The Alternative would require a Site Plan Review, similar to the proposed project.

Alternative 4: General Commercial General Plan and Zoning Development

The existing land use and zoning designation for the project property is General Commercial. Under this Alternative, the property would be built as a different general commercial development permitted within General Commercial land use and zoning designations established by the City of Blythe. According to Section 17.08.010 of the Blythe Municipal Code uses allowed within General Commercial zones could include automobile servicing, parking, or sales/rentals, eating and drinking establishments, (drive through) food and beverage sales, transient habitation, administration/professional services (i.e., offices), animal boarding, health care, and grooming facilities, laundry services, and recreational/fitness facilities. Alternative 4 would include the development and operation of two hotels (125 keys each) on 5 acres, three fast food sites (3,000 square feet each) on 3 acres, a convenience store on 1 acre, 20,000 square feet of commercial suites on 4 acres, and 30,000 square feet of professional/office suites as well as open space areas (retention, irrigation ditches and landscaping) on 8 acres. All of the proposed uses would share available parking. These uses are permitted by right within the General Commercial zone. Alternative 4 would allow the development of these uses on the approximately 34-acre site. Impacts to aesthetics, biological resources, cultural resources, geology and soils, public services, tribal cultural resources, and utilities (sewer) are anticipated to result in equal impacts compared to the project, while impacts to energy

(electricity), hazards and hazardous materials, hydrology and water quality, and utilities (electricity and water consumption) would likely be reduced under this Alternative compared to the project. Alternative 4 is likely to result in increased impacts to air quality, energy (petroleum consumption), greenhouse gas emissions, and noise. Traffic would likely be increased due to public access to the project. The Alternative would require a Site Plan Review, similar to the proposed project.

Of the alternatives considered in this Draft EIR, the No Project Alternative would result in no impacts to the project site and the project property would continue to operate as a seasonal agricultural field. However, due to the development and growth within the City, it is likely that development will occur at the project site since the development of general commercial land uses is occurring throughout the City. Therefore, the Reduced Density Alternative would be the most environmentally superior alternative since it would reduce impacts compared to the proposed project and meets most of the project's objectives.

A full discussion and analysis of the alternatives compared to the proposed project is included in **Chapter 7.0, *Alternatives***. **Table 7-14, *Comparison of Alternatives and Project*,** in **Chapter 7.0,** provides a summary comparison of impacts associated with the project alternatives. While there are some differences in the relative magnitude of potential effects, in each case it is concluded that impacts could be mitigated to level that is less than significant.

1.4 Areas of Controversy/Issues to be Resolved

. Comments received from area residents during the circulation period of the Notice of Preparation (NOP) did not identify concerns regarding the project, therefore there are no specific areas of controversy to be resolved. Project-related environmental impacts are included in the various sections in this Draft EIR. The Draft EIR analyzed potential project impacts regarding aesthetics, air quality, biological resources, cultural resources, energy resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation, tribal cultural resources, and utilities.

1.5 Mitigation Monitoring and Reporting Program

Pursuant to Section 21081.6 of the California Public Resources Code and the California Environmental Quality Act (CEQA) Guidelines Section 15097, public agencies are required to adopt a monitoring or reporting program (MMRP) to ensure compliance during project implementation with mitigation measures and revisions identified in a Final Environmental Impact Report (EIR). The MMRP must be adopted when a public agency makes it findings with respect to each significant effect before approving or carrying out a project for which an EIR has been certified (California Public Resources Code Section 21081(a); CEQA Guidelines Section 15091).

A public agency may choose to monitor mitigation, report on mitigation or both. As defined in the CEQA Guidelines Section 15097, "reporting" is suited to projects that have readily measurable or quantitative measures or which already involve regular review. "Monitoring" is suited to projects with complex mitigation measures, such as wetland restoration or archaeological protection, which may exceed the expertise of the local agency to oversee, are expected to be implemented over a period of time, or require careful implementation to assure compliance. Both reporting and monitoring would be applicable to the proposed project.

Table 1-3 identifies the potentially significant effects of the proposed project, mitigation measures, identified to avoid or reduce the identified potentially significant effects to the maximum extent feasible, and the effectiveness of the mitigation measures to reduce the potentially significant effects to a level of less than significant. **Table 1-4** outlines the project features and/or regulatory requirements identified throughout this Draft EIR. Since the project design features and regulatory requirements are standard procedures, they are not considered mitigation measures.

Table 1-3 Mitigation Monitoring and Reporting Program

Potential Impacts on the Environment	Mitigation Measure	Responsible for Monitoring	Timing	Level of Significance after Mitigation
4.1 Aesthetics				
a. Adverse effect on scenic vistas b. Impact a Scenic Highway (No Impact) c. Degradation to the visual character or quality of the site d. Light and glare	None	N/A	N/A	Less than Significant
4.2 Air Quality				
a. Conflict with implementation of applicable air quality plan b. Cumulatively considerable net increase if any criteria pollutant c. Expose sensitive receptors to substantial pollutant concentrations e. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people	**AQ-1** The project shall implement a Fugitive Dust Abatement Plan to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. The Fugitive Dust Abatement Plan requires the implementation of best management practices (BMPs) such as the use of perimeter fencing, applying adhesive dust suppressant, and/or watering the project site. The project property shall implement the BMPs for on- and off-site improvements outlined within their project-specific Fugitive Dust Abatement Plan during construction of the project site. Additionally, each phase of construction will develop BMPs to protect previous phase occupants. **AQ-2** To comply with the City and MDAQMD requirements, the project will include an odor control system with ventilation and filtration devices specifically sized and installed in each building to prevent internal odors from being emitted externally. MDAQMD requires a Cannabis Odor Compliance Plan to be filed for every licensed cultivation operation. Therefore, the application process will	City Planning Department Project Applicant/ Developer	Prior to approval of grading plans	Less than Significant

	include identifying an odor control system and associated specifications for MDAQMD review and approval. Under Rule 204, the control devices must be installed, operated, and maintained in strict compliance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Authorized equipment must be maintained and kept in good operating condition at all times. The odor control plan elements shall be designed and integrated with the architectural and electrical design plans for each building and shall be subject to review and approval by the City.			
4.3 Biological Resources				
a. Candidate, sensitive or special status species b. Riparian habitat c. Federally protected wetlands (No Impact) d. Movement of wildlife (No Impact) e. Conflict with local policies (No Impact) f. Conflict with applicable habitat conservation plan (No Impact)	**BIO-1:** A burrowing owl clearance survey shall be performed by a qualified biologist not more than 14 days prior to any site disturbance (grubbing, grading, and construction). The pre-construction survey is required to use accepted protocol (as determined CDFW). Prior to construction, a qualified biologist will survey the construction area and an area up to 500 feet outside the project limits for burrows that could be used by burrowing owls. If an active burrow is located, (1) earth disturbance must be immediately delayed for two weeks. If earth disturbance was scheduled to commence during the breeding season of the burrowing owl (February 1 to August 31), grading/grubbing must be delayed until September 1 or until another clearance survey finds that every owl nestling has fledged (permanently left the nesting burrow). (2) Resident non-breeding owls (owls occupying burrows between September 1 and January 31) may be passively forced from their burrows by exclusion gates that allow the owls to leave the burrow but not reenter. Prior to exclusion, at least three artificial burrows must be created with 250 feet of the existing burrow. Since all the land	Qualified Biologist City Planning Department Project Applicant/ Developer	Prior to ground disturbing activities	Less than Significant

	surrounding the project is private property, the project proponent must obtain in writing the landowner's approval before constructing the artificial burrows. A qualified biologist would lead and coordinate this endeavor with the California Department of Fish and Wildlife. If the burrow is unoccupied, the burrow will be made inaccessible to owls, and construction may proceed.			
4.4 Cultural Resources				
a. Adverse change to Historical Resources b. Adverse change to Archaeological Resources c. Disturb any human remains, including those interred outside of formal cemeteries	None	N/A	N/A	Less than Significant
4.5 Energy				
a. Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation? b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	None	N/A	N/A	Less than Significant
4.6 Geology and Soils				
a. Expose people or structures to potential substantial adverse effects involving: i. Rupture	**GEO-1** All earthwork including excavation, backfill and preparation of the subgrade soil, shall be performed in accordance with the geotechnical recommendations, presented below, and portions of the local regulatory requirements, as applicable. All earthwork should be performed under the observation and testing of a	Qualified Soils Engineer City Planning, Engineering &	During ground disturbing activities	Less than Significant

ii. Strong Seismic Shaking iii. Seismic-related ground failure, including liquefaction iv. Landslides b. Substantial Soil Erosion or loss of topsoil c. Located on an Unstable Geologic Unit d. Located on Expansive Soil e. Inadequate soils to support septic tanks (No Impact)	qualified soil engineer. The following geotechnical engineering recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analysis. • Stripping: Areas to be graded shall be cleared of any existing structures, surface, and subsurface improvements, vegetation, the associated root systems, concrete and debris. All areas scheduled to receive fill should be cleared of any oversized or unsuitable material that should be removed off site. Voids left by obstruction shall be properly backfilled in accordance with the compaction recommendations of the Geotechnical Investigation. • Preparation of the Building Areas: In order to achieve firm and uniform bearing conditions, over-excavation and re-compaction shall occur throughout the building areas. All artificial fill soil and low density near surface native soil should be removed to a depth of at approximately 3 feet below existing grade or 2 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally, a minimum of five feet beyond the building perimeter. The soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction. • Compaction: The soil removed by over-excavation and any other material to be used as engineered fill soil should be free of organic material, debris, and any deleterious substances and should not contain irreducible matter greater than 8 inches in maximum dimension. The soil removed during over-excavation and all fill materials should be placed in thin lifts not exceeding six inches in a loose condition at over optimum moisture content. If import fill is required, the	Public Works Department Project Applicant/ Developer		

material should be of non-expansive nature and shall meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 Inches

The subgrade and all fill material shall be compacted with acceptable compaction equipment, to at least 90 percent relative compaction. The bottom of the excavation should be observed by a representative of Sladden Engineering prior to fill placement. Compaction testing should be performed on all lifts in order to verify proper placement of the fill materials.

- Shrinkage and Subsidence: Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill shall be anticipated. It is estimated that shrinkage could vary from 10 percent to 20 percent. Subsidence of the surfaces that are scarified and compacted shall be between 1 and 3 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.
- Stabilization: Deeper excavations will likely require stabilization due to shallow groundwater conditions. A gravel/crushed rock layer approximately 2 feet thick should be placed within the excavation bottoms to provide a stable working platform and to promote drainage and removal of groundwater that seeps into the excavation. The gravel/crushed rock should be surrounded by an appropriate filter fabric to prevent the migration of fines during

	dewatering operations. Geogrid reinforcement should be placed withing the gravel/crushed rock. **GEO-2** Conventional Shallow Spread Footings: Conventional shallow spread footings are expected to provide adequate support for the proposed buildings. Load bearing walls may be supported on continuous footings and interior columns may be supported on isolated pad footings. All footings should be founded upon properly compacted engineered fill soil and should have a minimum embedment depth of 18 inches measured from the lowest adjacent finished grade. Continuous and isolated pad footings should have minimum widths of 12 inches and 24 inches, respectively. Continuous and isolated pad footings may be designed using an allowable (net) bearing pressures of 1,800 and 2,000 pounds per square foot (psf), respectively. Allowable increases of 250 psf for each additional 1 foot in width and 250 psf for each additional 6 inches in depth may be utilized, if desired. The maximum allowable bearing pressure should be 3,000 psf. The maximum bearing pressure applies to combined dead and sustained live loads. The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces. Based on the allowable bearing pressures recommended above, the total static settlement of the shallow footings is anticipated to less than one-inch, provided that foundation preparation conforms to the recommendations provided in this report. Differential static settlement is anticipated to be approximately one-half the total static settlement for similarly loaded footings spaced up to approximately 40 feet apart.			

	Lateral load resistance for the spread footings will be developed by passive soil pressure against the sides of the footings below grade and by friction acting at the base of the concrete footings bearing on compacted fill. An allowable passive pressure of 250 psf per foot of depth may be used for design purposes. An allowable coefficient of friction 0.40 may be used for dead and sustained live loads to compute the frictional resistance of the footing placed directly on compacted fill. Under seismic and wind loading conditions, the passive pressure and frictional resistance may be increased by one-third. All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture softened soils and/or any construction debris should be removed prior to concrete placement. Excavated soil generated from footing and/or utility trenches should not be stockpiled within the building envelope or in areas of exterior concrete flatwork. All footings should be reinforced in accordance with the project Structural Engineer's recommendations. **GEO-3** Slabs on Grade: Concrete slabs-on-grade must be placed on properly compacted engineered fill as outlined in the Geotechnical Report. The slab subgrades should remain at over optimum moisture content and should not be permitted to dry prior to concrete placement. All slabs subgrades should be firm and unyielding. Disturbed soil should be removed and then replaced and compacted to a minimum of 90 percent relative compaction.			

	Floor slab thickness and reinforcement should be determined by the Structural Engineer. Based on the anticipated use, a minimum floor slab thickness of 5.0 inches and minimum slab reinforcement of #4 bars at 24 inches on center. All slab reinforcement should be properly supported to ensure that reinforcement is placed at slab mid-height. Slabs with moisture sensitive surfaces should be underlain with a moisture vapor retarder consisting of polyvinyl chloride membrane such as 10-mil visqueen, or equivalent. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface cannot be achieved by grading, consideration should be given to placing a 1-inch thick leveling course of sand across the pad surface prior to placement of the membrane. **GEO-4** Exterior Concrete Flatwork: To minimize cracking of concrete flatwork, the subgrade soil below concrete flatwork areas should be compacted to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil prior to concrete placement. **GEO-5** Utility Trench Backfill: All utility trench backfill should be compacted to a minimum of 90 percent relative compaction. Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve over optimum moisture content, and then mechanically compacted to a minimum of 90 percent relative			

	compaction. A representative of the project soil engineer should test the backfill to verify adequate compaction. **GEO-6** Drainage: All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. In order to reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading. **GEO-7** Retaining Walls: Minor retaining walls may be required to accomplish the construction of the project. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 35 pcf for native backfill soil with level drained backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 55 pcf for native backfill soil with level drained backfill conditions. **GEO-8** Corrosion Series: The soluble sulfate concentrations of the surface soil was determined to be 180 parts per million (ppm). The soil is considered to have a "very low" corrosion potential with respect to concrete in accordance with ACI 318. The use of Type V cement and special sulfate resistant concrete mixes will be necessary. Soluble sulfate content of the surface soil should be reevaluated after grading and appropriate concrete mix designs should be established based upon post-grading test results. The pH levels of the surface soil was determined to be 9.2. Based on soluble chloride concentration testing (80 ppm), the soil is			

		considered to have a "very low" corrosion potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 1,600 ohm-cm, that suggests the site soil is considered to have a "moderate" corrosion potential with respect to ferrous metal installations. A corrosion expert should be consulted regarding appropriate mitigation measures for corrosion sensitive materials.			
f. Destroy a unique paleontological resource or site or unique geologic feature	**GEO-9**	All earth-moving operations reaching beyond the depth of three feet shall be monitored by a qualified paleontological monitor. The monitor shall be empowered to stop earth moving activities if fossils are identified. The monitor shall be prepared to quickly salvage fossils, but must have the power to temporarily halt or divert construction equipment to allow for removal of abundant or large specimens. A monitoring plan shall be provided to the City prior to the issuance of any earth moving permit, or the disturbance of any soils on the site, which will include: • Samples of sediments shall be collected and processed to recover small fossil remains. • Recovered specimens shall be identified and curated at a repository with permanent retrievable storage that would allow for further research in the future. A report of findings, including an itemized inventory of recovered specimens and a discussion of their significance when appropriate, shall be prepared upon completion of the research procedures outlined above. The report shall be provided to the City of Blythe Development Services Department.	Qualified Paleontological Monitor City Planning Department Project Applicant/ Developer	During earth-moving activities reaching beyond the depth of three feet	Less than Significant
4.7 Greenhouse Gas Emissions					
a. GHG Emissions that may Significantly Impact the Environment	None		N/A	N/A	Less than Significant

b. Conflict with Applicable Plan, Policy or Regulation				
4.8 Hazards and Hazardous Materials				
a/b. Transport, Use, or Disposal of Hazardous Materials and Accidental Release of Hazardous Materials, c. Emit hazardous emissions or handle hazardous materials within one-quarter mile of a school (No Impact) d. Hazardous Materials Onsite Pursuant to Government Code Section 65962.5. e. For a project located within an airport land use plan or, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area (No Impact) f. Interfere with the Adoption or Implementation of an Emergency Response Plan	**HAZ-1** The project is required to comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP). The required plan will identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted through the Stormwater Multiple Application and Report Tracking System (SMARTS), in which a Waste Discharge Identification (WDID) number will be issued. The SWPPP and WDID must be kept on-site and used during the life of the project. **HAZ-2** Should the project store 200 or more cubic feet of compressed gas at the project site, the project shall prepare a Hazardous Materials Business Plan (HMBP), as required by Chapter 6.95 of the California Health and Safety Code (HSC) and enforced by the Riverside County Department of Environmental Health (DEH). HMBPs must include at least the following: • A list of the chemical name and common names of every hazardous substance or chemical product handled by the business; • The category of waste, including the general chemical and mineral composition, of every hazardous waste handled by the business;	Riverside County Department of Environmental Health City Planning Department Fire Department Project Applicant/ Developer	Prior to approval of grading plans Prior to project operations	Less than Significant

	• The maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite; • Sufficient information on how and where the hazardous materials are handled by the business to allow fire, safety, health, and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials; • Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and • Training for all new employees and annual training, including refresher courses, for all employees on safety procedures in the event of a release or threatened release of a hazardous material. **HAZ-3** The project would be required to comply with Occupational Safety and Health Administration (OSHA) Regulations and standards, including worker personal protective equipment requirements. These standards are codified in 29 Code of Federal Regulations (CFR) Part 1910, which address issues that range in scope from walking and working surfaces, to exit routes and emergency planning, to hazardous materials and personal protective equipment. They include exposure limits for a wide range of specific hazardous materials, including pesticides, as well as requirements that employers provide personal protective equipment to their employees wherever it is necessary (i.e., when required by the label instructions). OSHA standards also require that chemical manufacturers and importers obtain and develop Safety Data Sheets (SDSs). Employers must have an SDS in the workplace for each chemical they use.			

	HAZ-4 The project shall dispose of all cannabis plant waste in accordance with Section 17223 of the Department of Cannabis Control (DCC) Medicinal and Adult-Use Commercial Cannabis Regulations, California Code of Regulations (CCR) Title 4. This document establishes requirements for the disposal of cannabis waste and the reporting of cannabis waste disposal. **HAZ-5** The project shall dispose of light bulbs used for indoor cultivation at a certified facility that accepts commercial hazardous waste. Closest commercial hazardous waste site to the project is Environmental Logistics, located at 140 West Monte Avenue, in Bloomington California. The project will be required to receive approval from Environmental Logistics, pay the associated fee, and coordinate waste pick-up. Environmental Logistics provides pick-up services, and all waste is picked up in Department of Transportation (DOT) certified containers and transported to their facilities. **HAZ-6** The project shall be required to have certification from and comply with local jurisdictions, including the City of Blythe and the Fire Department, to ensure building, electrical, and fire codes are properly implemented at the site.			
4.9 Hydrology and Water Quality				
a. Violation of Water Quality Standards or Waste Discharge Requirements b. Decrease groundwater supplies c. Alter the existing drainage pattern of the site, in a manner which would: i. Result in erosion or siltation on- or off-site;	**HWQ-1** The project proponent must comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP), which is designed to reduce potential adverse impacts to surface water quality during the period of construction. The SWPPP must identify the locations and types of	City Planning Department Project Applicant/ Developer	Prior to approval of grading plans	Less than Significant

ii. Result in flooding on- or off-site; iii . Create or contribute runoff water; or iv. impede or redirect flood flows? d. Release of pollutants due to project inundation e. Conflict with a water quality control plan or sustainable groundwater management plan	construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted to the State Water Resources Control Board (SWRCB) who will issue a Waste Discharge Identification (WDID) number. The SWPPP and WDID must be kept on-site during the period of construction.			
4.10 Noise				
a. Generation of noise levels in excess of established standards b. Generation of excessive groundborne vibration c. Excessive noise levels due to proximity to an airport or a private air strip	None			
4.11 Public Services				
a. Increased demand on Public Services: Fire, Police, Schools, Parks, Other Public Facilities	None	N/A	N/A	Less than Significant
4.12 Transportation				
a. Conflict with an applicable plan or policy addressing the circulation system b. Inconsistent with CEQA Guidelines section 15064.3, subdivision (b) c. Increase hazards due to a geometric design feature d. Result in inadequate emergency access	None	N/A	N/A	Less than Significant

4.13 Tribal Cultural Resources				
a. Cause substantial adverse change in significance of tribal cultural resource that is i. A site listed in the CRHR or Local Register, Tribal Cultural Resources ii. A resource determined to be significant to a California Native American tribe.	None	N/A	N/A	Less than Significant
4.14 Utilities				
a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects b. Have sufficient water supplies available c. Result in construction of new wastewater facilities d. Generate excess solid waste e. Comply with federal, state and local management and reduction statues and regulations related to solid waste	None	N/A	N/A	Less than Significant

Table 1-4 Regulatory Requirements and Project Design Features

Regulatory Requirement and Project Design Feature	
4.1 Aesthetics	
Regulatory Requirements	
Blythe Municipal Code Section 17.10.040(B)	Section 17.10.040(B) requires buildings to not exceed three stories in height or a maximum of thirty-four feet in height. The project proposes a maximum building height of 30 feet, with one building (Building Number 1) to be 2 stories. Therefore, the project complies with the building heights established in the Municipal Code.
Blythe Municipal Code Section 17.12.040	Section 17.12.040 establishes setback requirements for non-residential zones in the City, and requires a minimum setback of 10 feet from a building to the front or side of the property (adjacent to a street); a minimum setback of 0 feet from the side (adjacent to an alley or another lot); a minimum building setback of 5 feet from a building to the rear of the property (adjacent to a street); and a minimum building setback of 0 feet from a building to the rear of the property (adjacent to an alley or another lot). The project complies with these setback requirements. See **Section 4.1, *Aesthetics***.
Blythe Municipal Code Section 17.10.010	The minimum lot area for General Commercial zones is 5,000 square feet; the minimum lot width is 50 feet, and the minimum depth is 100 feet. The lot width is approximately 1,304 feet, and the lot depth is approximately 1,047 feet. The project is compliant with the lot area, width and depth requirements for C-G zones established in the Municipal Code.
Blythe Municipal Code Section 17.22	Section 17.22 was established to enhance the community's environmental and visual character for its citizens' use and enjoyment; establish a more healthy environment by using plants to mitigate pollution's ill effects; safeguard property values; protect public and private investments; and promote high-quality development. Section 17.22.040, Approval Requirements, requires that landscaping consist of an effective combination of trees, lawn/ground cover, shrubs and desert vegetation, as approved by the planning director. The project's landscaping plan, proposes the use of trees, palms, shrubs, accents, and groundcovers. The plants proposed include Mulga, smoothie thornless cascalote, desert museum palo verde, Azt thornless mesquite, tipu tree, pink dawn chitalpa, date palm, brittle bush, resin spurge, thunder cloud Texas sage, senna, century plant, toothless desert spoon, desert flamenco red yucca, desert carpet bank catclaw, bush morning glory, trailing lantana, and turfgrass. The trees are proposed along the building frontages within the fenced boundaries of the project, in the parking areas on medians,

	and along the retention basins. The shrubs, accents, and groundcovers are proposed along the project frontages, building frontages and parking areas, as well as in the retention areas. Turfgrass is proposed in the retention basins to aid in the filtration of brackish water. The proposed landscape includes low water use and low maintenance plantings. The project's landscape complies with the requirements established in the Municipal Code. The landscape plan will be reviewed and approved by the City as a condition of project approval.
Blythe Municipal Code Title 17, Division III	The project will also be required to comply with the development and performance standards established in Title 17, Division III of the Municipal Code. These standards include guidelines for loading areas (Chapter 17.18), trash, storage and utility areas (Chapter 17.20), signs (Chapter 17.26), and lighting (Chapter 17.28). Review of the final building plans for the project will be required prior to commencement of construction.
Blythe Municipal Code Section 17.28.030	Section 17.28.030, *Lighting of private property,* states lighting, "where provided to illuminate private property, shall be so arranged as to reflect away from adjoining property or any public way and to be arranged so as not to cause a nuisance either to highway traffic or to the living environment."
4.2 Air Quality	
Regulatory Requirements	
Blythe Municipal Code Chapter 8.32	Chapter 8.32 requires the maintenance of any real or personal property, whether improved or unimproved, in such a manner that dust, sand, soil or any other foreign material is caused to be blown or otherwise placed into the air or atmosphere, or spread or drift upon property or premises of the city or any other person, firm or corporation, in such a manner as to cause perceptible injury to property, or to so pollute the air or atmosphere as to sensibly impair enjoyment thereof, or to be a detriment to the public health or safety or the property of such others shall constitute a nuisance.
Blythe Municipal Code Chapter 17.28	Chapter 17.28 states no use shall be established which causes or emits any dust, gas, smoke, fumes, odors, noise or vibrations which are or may be detrimental to other properties in the neighborhood or to the occupants thereof.
Blythe Municipal Code Chapter 5.10	Section 5.10 (L) (Odor Control) in the City's Code of Ordinances requires that odor control devices and measures be implemented with commercial cannabis businesses to ensure that that odors from cannabis are not detectable off-site. Commercial cannabis facilities are required to provide a sufficient odor absorbing ventilation and exhaust system so that odor generated inside the commercial cannabis business that is distinctive to its operation is not detected outside of the facility, anywhere on adjacent property or public rights-of-way, on or about the exterior or

	interior common area walkways, hallways, breezeways, foyers, lobby areas, or any other areas available for use by common tenants or the visiting public, or within any other unit located inside the same building as the commercial cannabis business. The analysis provided on the topic of odors addresses the project's compliance with the requirements through an odor control plan. The Code of Ordinances presents two types of odor control methods or an approved equivalent that must be installed and maintained for this purpose. 1. An exhaust air filtration system with odor control that prevents internal odors from being emitted externally; 2. An air system that creates negative air pressure between the commercial cannabis business's interior and exterior, so that the odors generated inside the commercial cannabis business are not detectable on the outside of the commercial cannabis business.
Blythe Municipal Code Section 5.10.310	Cannabis cultivation permit applicants are required to submit a "plan for addressing odor and other public nuisances which may derive from the cultivation site".
4.3 Biological Resources	
Regulatory Requirement	
N/A	
4.4 Cultural Resources	
Regulatory Requirement	
City General Plan Policy 25	Protect archaeologic, historic, and paleontologic resources for their aesthetic, scientific, educational, and cultural value and the following Implementation: *Implementation:* *Require a records search for any development project proposed in areas of high archaeological sensitivity to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources.* *Implementation:* *Require that sponsors of projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by State law, are found, require preparation of*

	an archaeologic resource mitigation plan; monitor the project to ensure that mitigation measures are implemented. ▪ *In the event that any cultural resources are discovered during clearing, grading or construction, project operations shall cease until a qualified archaeologist has evaluated the situation. Following the evaluation, the project sponsor shall implement recommendations provided by the archaeologist, in consultation with the City, that are consistent with State law.* ▪ *If human skeleton remains are encountered during construction of a project, the County Coroner shall be notified. If the remains are Native American, the coroner has 24-hours to notify the Native American Heritage Commission.* ▪ *Any cultural resources found on the proposed project site will be recorded or described in a professional report and submitted to the University of California at Riverside.*
4.5 Energy Resources	
Regulatory Requirements/Project Design Features	
State of California and the Mojave Desert Air Quality Management District (MDAQMD)	The project would be required to comply with all mandates imposed by the State of California and the MDAQMD. Those that are applicable to the project and that would assist in the reduction of energy consumption, and thus, greenhouse gas emissions include: • Global Warming Solutions Act of 2006 (Assembly Bill 32) • Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill 375) • Pavley Fuel Efficiency Standards (AB 1493), which establish fuel efficiency ratings for new vehicles • Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction. • Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances. • Title 17 California Code of Regulations (Low Carbon Fuel Standard [FCFS]). Requires carbon content of fuel sold in California to be less than 10 percent by 2020. • California Water Conservation in Landscaping Act of 2006 (AB 1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscaping. • Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.

	• Renewable Portfolio Standards (SB 1078 – also referred to as RPS), which requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020. • California Global Warming Solutions Act of 2006 (SB 32), which requires the state to reduce statewide emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.
Title 24 Part 6 and CALGreen	Approval of the proposed project will be conditioned on the project including the following project design features, in compliance with Title 24 Part 6 energy efficiency standards and CALGreen standards: • Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following: o Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1) o Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2). o Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2). o Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of note more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5). • Outdoor portable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1). • Installation of High Efficiency Lighting • 7,000 square feet of solar panels on each building, 1 watt per square foot

	• The project also proposes the use of emergency back-up generators for each building. The back-up generators would generate 30 percent of demand load to keep the climate control (only) at a minimum. The continued climate control from the back-up generators will sustain plant survival during a power outage.
VMT Reduction Strategies	In addition to the energy-saving project design features, the proposed project would incorporate the following strategies to reduce automobile trips and the distance traveled per service population, to reduce vehicle miles traveled (VMT), and thus, petroleum fuel consumed. Because these features/attributes are integral to the project, and/or are regulatory requirements, they are not considered to be mitigation measures. Per the VMT Evaluation, the following VMT reduction strategies may be considered for the project: • Designated Part-time Employee Transportation Coordinator (ETC) o Role of the ETC is to provide education and point of contact for commute related questions and commuter benefits. • Bicycle End-Trip Facilities o On-site secure bike parking, storage lockers, showers • Carpool and Vanpool Ride-Match Services o Waze Carpool and other carpool/vanpool ride-matching services • Preferential Carpool Parking o Provide designated carpool parking spaces that encourage the use of carpooling instead of single occupancy driving. • Compressed Work Weeks • Provide for compressed work weeks such as a 4/10 work schedule reducing the need for commuting by one day per week.
4.6 Geology and Soils	
Regulatory Requirements	
Blythe Municipal Code Title 15 – Buildings and Construction	Building, construction, and grading activities for the project would be subject to Title 15 of the Blythe Municipal Code, which governs the conditions, construction, and maintenance of all property, buildings, and structures within the City. Title 15 is based on the 2019 CBC, which sets minimum design and standards for construction of buildings and structures that must also meet minimum seismic design standards.

Chapter 16 of the CBC, Structural Design, Section 1613, Earthquake Loads, and City Municipal Code Chapter 15.04.	2019 California Building Code and the City Municipal Code establishes rules for regulating the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures. The project will be required to comply.
4.7 Greenhouse Gas Emissions	
*See **Section 4.5, Energy Resources**, regulatory requirements, and project design features*	
4.8 Hazards and Hazardous Materials	
N/A	
4.9 Hydrology and Water Quality	
Regulatory Requirements	
Blythe Municipal Code Section 16.32.040	Section 16.32.040 - Drainage facilities – requires that drainage facilities shall be installed as deemed necessary by the city engineer to provide for the removal of surface water. Such drainage facilities shall be of a character and design approved by the city engineer and in accordance with the requirements of the standard specifications referred to in Section 16.32.010, in order to ensure proper grading and erosion control, including the prevention of sedimentation or damage to off-site property. The proposed project involves an on-site private storm drain system with distributed facilities designed to properly convey, capture, and retain stormwater runoff on-site while achieving compliant surface water quality management and protecting on- and off-site property from the incremental increase in stormwater volume resulting from the controlling (worst-case) storm event for the project's hydrologic area. The proposed improvements are also required to demonstrate compliance with the City's drainage standards, such that they include proper grading, erosion control, and prevention of sedimentation or damage to off-site properties under Section 16.32.040 of the City's Code of Ordinances. Per the preliminary grading plan and hydrology report, stormwater runoff from a majority of the project's outdoor impervious surfaces (rooftops, hardscape, pavement) will be conveyed in a controlled manner via sheet and gutter flows into multiple catch basins connected via sub-surface lines to designated underground storage structures. The project involves a total of 18 proposed underground retention locations expected to consist of perforated storage pipe, sized and configured according to the site-specific geotechnical considerations. These facilities are distributed

	throughout the north, center, and south portions of the site to prevent concentrated flows and to manage the size of their respective tributary areas. Furthermore, runoff volumes in excess of the underground storage capacity and from a central portion of the project will be conveyed via sheet and gutter flows into two equally sized and centrally located surface retention basins with a depth of 3 feet and a combined area of approximately 1.5 acres. These surface basins will have a 3-to-1 maximum side slopes for stability with inflow occurring via multiple 3-foot-wide concrete "U" channels with rip-rap at the outlets as a form energy dissipation for erosion and siltation control. The combined retention capacity to be provided by the project is estimated at 210,348 cubic feet, sufficient to contain the incremental increase in stormwater volume resulting from the controlling 100-year storm event for the project's hydrologic area. By design, the south half of the Hobsonway frontage will be improved and allowed to drain into the on-site storm facilities via proposed curb and gutter. This design will improve upon the stormwater management for a portion of the public street, which currently has unimproved shoulders and lacks proper storm drain facilities. The existing irrigation facilities along the east, north, and west edges of the project site will not be hydrologically connected to or comingled with the on-site storm drain facilities as part of the routine operations. Instead, they'll be improved with new irrigation culverts to enhance their delivery efficiency and will be separated from project runoff by barrier curb and proper grade separations. The purpose and function of the proposed underground and surface retention facilities introduced with the project is to collectively accept and percolate the site's incremental increase in stormwater volume generated from the worst-case 100-year storm event. As previously mentioned, these facilities will only accept runoff from outdoor surfaces (surfaces exposed to rain), such as rooftops, hardscape, paved areas, and landscaping. These facilities are not designed or allowed to accept non-stormwater flows or any other discharges generated from indoor operations. All storm drain facilities will be subject to proper inspection, operation and maintenance during the life of the project to maintain their effectiveness. To prevent stormwater from being exposed to potential pollutants, the project will involve a binding Water Quality Management Plan with source control measures and best management practices aimed and pollution prevention. Through the proposed on-site containment and protection of surrounding uses, the project will prevent stormwater discharge in a manner that results in off-site hydrologic modifications or impairments to downstream resources. The project will introduce improved culverts at the existing irrigation channels, but will maintain their overall operating condition under PVID. The proposed storm drain system and runoff management will operate separately

	from the PVID irrigation system. In the developed conditions, runoff from proposed buildings, hardscape, parking, and landscaping will be adequately conveyed along engineered flow lines (sheet flow, curb/gutter, and pipes) to the on-site retention facilities sized for the extent of the project and adjoining tributary street flows. The stabilized runoff conveyance surfaces will prevent instances of substantial erosion or siltation. The incremental increase in stormwater runoff volume resulting from the project's addition of impervious surfaces will be adequately managed through the provided retention capacity with associated maintenance.
4.10 Noise	
N/A	
4.11 Public Services	
Regulatory Requirements	
Blythe General Plan *Fire Protection and Prevention Policies 10,* and *11*	The project complies with the Blythe General Plan *Fire Protection and Prevention Policies 10,* and *11,* which requires new developments to install fire protection equipment/systems and pay for increased fire protection as necessitated by the project. The project would be required to implement all applicable fire safety requirements, such as the installation of fire hydrants and sprinkler systems. The project shall also be reviewed by the Fire Department to assure that project access and design provide for maximum fire life safety.
Blythe General Plan *Crime Protection and Prevention Policy 14*	Additionally, the project complies with the Blythe General Plan *Crime Protection and Prevention Policy 14* which states that the City shall cooperate with the Police Department in periodically evaluating services and service criteria to ensure that the City continues to receive adequate law enforcement services. It also provides for continued cooperation with the Riverside County Sheriff's Department and other nearby law enforcement agencies to provide back-up police assistance in emergency situations. *Crime Protection and Prevention Policy 15* ensures that developments incorporate safety concerns into the site, circulation, building design and landscaping plans through the design review process. The project shall also be reviewed by the Police Department to assure that project access and design provide for a defensible space and maximum crime prevention while maintaining City design standards and codes.
Development/User Impact Fees	The project would be required to comply with Development/User Impact Fees in place at the time of construction. As previously stated, development fees for commercial buildings are $500.10 for the first 5,000 square feet (and $0.10 each additional square-foot under roof), which the City concludes is adequate to mitigate any significant impacts from new development. Payment of these fees goes towards the funding of public facilities including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic

	signalization, public safety facilities and other public buildings. In addition, the project will generate substantial additional transient occupancy and sales tax revenue that the City can use to fund additional officers and other personnel to increase staffing levels for the fire and police services provided to the project and Citywide.
Commercial Cannabis Business Permit	The project must be awarded a permit to operate a Commercial Cannabis Business by the Blythe City Council. The application process for the permit occurs in four phases. Fees are due at each phase of the process based on the costs associated with the review of applications for that phase. The analysis of the cannabis services relies primarily upon a standard unit cost build-up approach, where the reasonable cost of each fee occurrence using staff time to recover the direct cost of staff and the pro-rata share of departmental costs, including indirect costs for City Central Services, was determined. The project will be required to pay the City fees associated with cannabis businesses.
Project Design Features	
	Typical for cultivation facilities in the City of Blythe, the project shall be gated with no-cut / no climb perimeter fencing mounted at regular intervals with security cameras, thus increasing security and minimizing potential crimes. Additionally, lighting features throughout the project will enhance security and maximize visibility within the project including drive aisle, building frontages, parking areas, and street and building entrances. The project will also be required to comply with the most current building, fire, and electrical codes in place at the time development occurs.
4.12 Transportation	
Regulatory Requirements	
	The County Congestion Management Plan (CMP) requires a LOS E or better for regional roadways. The generation, distribution, and management of project traffic is not expected to conflict with the CMP; no CMP roadways occur in the vicinity of the project. The project and background traffic will not exceed City level of service standards or travel demand measures, or other standards established by the City or Riverside County Transportation Commission (RCTC) for designated roads or highways. The Transportation Uniform Mitigation Fees (TUMF) program identifies network backbone and local roadways that are needed to accommodate growth. The project will be required to pay TUMF fees in place at the time that building permits are sought. This requirement will assure that the project impacts on the regional roadway system will be mitigated. Following the payment of required fees such as TUMF and DIF, less than significant impacts are anticipated relative to the CMP.

	In general, a project's fair share contribution can include a combination of fee payments to established programs, construction of specific improvements with applicable fee credits or reimbursements, payment of a fair share contribution toward future improvements, or a combination of these approaches. Except to the extent provided otherwise below, the project's fair share contribution for the required improvements specified above is satisfied through the project's payment of the City's development impact fees. As set forth in the User Fee Study dated May 2019, the traffic component of the City's DIF is calculated to ensure that future development funds its fair share of necessary improvements to meet the City's General Plan transportation policies.
	The following VMT reduction strategies may be considered for the project but were not included in project calculations. This ensured a conservative analysis. • Designated Part-time Employee Transportation Coordinator (ETC) o Role of the ETC is to provide education and point of contact for commute related questions and commuter benefits. • Bicycle End-Trip Facilities o On-site secure bike parking, storage lockers, showers • Carpool and Vanpool Ride-Match Services o Waze Carpool and other carpool/vanpool ride-matching services • Preferential Carpool Parking o Provide designated carpool parking spaces that encourage the use of carpooling instead of single occupancy driving. • Compressed Work Weeks o Provide for compressed work weeks such as a 4/10 work schedule reducing the need for commuting by one day per week. The rigorous assessment determined that Project generated VMT per employee is below the City threshold and is therefore found to be less than significant relative to VMT impacts.
4.13 Tribal Cultural Resources	
Regulatory Requirements	
City of Blythe General Plan	The City of Blythe General Plan (2007), includes the following goals, and implementing policies: *25. Policy: Protect archaeologic, historic, and paleontologic resources for their aesthetic, scientific, educational, and cultural value.*

	Implementation:	*Require a records search for any development project proposed in areas of high archaeological sensitivity to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources.*
	Implementation:	*Require that sponsors of projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by State law, are found, require preparation of an archaeologic resource mitigation plan; monitor the project to ensure that mitigation measures are implemented.* *More specifically, project sponsors will be required to adhere to the following, which will be implemented as an environmental mitigation measure or condition of project approval:* ▪ *In the event that any cultural resources are discovered during clearing, grading or construction, project operations shall cease until a qualified archaeologist has evaluated the situation. Following the evaluation, the project sponsor shall implement recommendations provided by the archaeologist, in consultation with the City, that are consistent with State law.* ▪ *If human skeleton remains are encountered during construction of a project, the County Coroner shall be notified. If the remains are Native American, the coroner has 24-hours to notify the Native American Heritage Commission.* ▪ *Any cultural resources found on the proposed project site will be recorded or described in a professional report and submitted to the University of California at Riverside.*
4.14 Utilities and Service Systems		
Regulatory Requirements		

Mandatory Diversion and Recycling, AB 341	Approved in 2011, this act amended the California Public Resources Code (Section 42649 et seq.) to address solid waste diversion (i.e., recycling) targets to decrease the amount of wastes going to landfills and thus extend their usable lives. AB 341 requires cities and counties, including Riverside County, to include source reduction, recycling and composting in their integrated waste management plans (IWMP). In addition, under AB 341 counties were required to "divert 50% of all solid waste from landfill disposal or transformation [e.g., incineration] by January 1, 2000, through source reduction, recycling and composting activities." By 2020, the target rises to "not less than 75% of solid waste." (Riv. County EIR No. 521). In addition, all future development would be required to comply with mandatory commercial and residential recycling requirements of Assembly Bill 341. The project will comply with all applicable solid waste statutes, policies and guidelines; and the project will be served by a landfill with sufficient capacity to serve the project. Therefore, impacts relative to solid waste are less than significant. The project will comply with all applicable solid waste statutes, policies and guidelines. All development is required to comply with the mandatory commercial and residential recycling requirements of Assembly Bill 341.
The California Green Building Standards Code (Cal Green)	Cal Green applies to all cities in California, and mandates that all new building construction develop a waste management plan that includes diversion of at least 65% of construction and demolition material from landfills, through recycling and/or reuse. There are no impacts relative to applicable solid waste regulations because the project is required to, and will, comply with all such regulations.

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Chapter 2.0 Introduction

2.1 Purpose

This project Environmental Impact Report (EIR) has been prepared in accordance with the California Environmental Quality Act (CEQA). The City of Blythe, as the Lead Agency under CEQA, is responsible for preparing the Draft EIR for the proposed Edelweiss Sustainable Farms project. The project will require certain discretionary approvals by the City and other governmental agencies. Therefore, the project is subject to environmental review requirements under CEQA. This introduction is included to provide an overview of the purpose, content and format of this Draft EIR and its relation to the City of Blythe's planning and environmental review process for the proposed project.

The purpose of a Draft EIR is to inform decision-makers and the general public of the potential environmental impacts and identify feasible mitigation measures to reduce potentially significant impacts resulting from the proposed Edelweiss Sustainable Farms project. The Blythe City Council will consider the information presented in the document in making an informed decision regarding the entitlements requested for the project.

The project area encompasses approximately 34 acres. The project proposes several applications leading to the development of a cannabis facility, consisting of twelve buildings and associated infrastructure (retention, driveways, parking, landscaping throughout, a primary gated access point, two emergency access points, and perimeter fencing). A detailed description of the project is included in **Chapter 3.0** ***(Project Description)*** of this Draft EIR.

The Draft EIR has been prepared in conformance with CEQA (California Public Resources Code, Section 21000, et seq.), and the CEQA Guidelines (California Code of Regulations, Title 14, Section 15000, et seq.), and with the City of Blythe CEQA Guidelines to evaluate the potential environmental impacts associated with the implementation of the proposed project.

As described in Section 15121 (a) and 15362 of the *State CEQA Guidelines*, an EIR is an informational document which will inform public agency decision makers and the public generally of the significant environmental effects of a project, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project. Thus, the purpose of this Draft EIR is to focus the discussion on those potential environmental effects of the project that the Lead Agency has determined could be significant. In addition, where applicable, feasible mitigation measures are recommended that could reduce or avoid any significant environmental impacts identified for the project to the maximum extent feasible.

Preparation of the Draft EIR includes the preparation of technical studies such as Air Quality, Biological Resources, Cultural Resources, Geotechnical, Greenhouse Gas, Hydrology and Drainage, Noise,

Paleontological, Traffic and Vehicle Miles Travelled (VMT), and continuing consultation with the appropriate agencies.

2.2 Review of the Draft EIR

Upon completion of the Draft EIR, the City of Blythe filed a Notice of Completion (NOC) with the Governor's Office of Planning and Research, State Clearinghouse and the Riverside County Clerk to begin the public review period (Public Resources Code, Section 21161). Concurrent with the NOC, this Draft EIR will be available on the City's website, distributed to responsible and trustee agencies, other affected agencies, and interested parties, as well as all parties requesting a copy of the Draft EIR in accordance with Public Resources Code Section 21092(b)(3). During the public review period, the Draft EIR, including the technical appendices, is available for review at the City of Blythe Planning Division, the Palo Verde Valley Library, and on the City's website. The addresses for each location are provided below:

City of Blythe

Planning Department
235 North Broadway
Blythe, CA 92225
Phone: 760-922-6130
Hours: Monday – Friday 7:00 a.m. to 4:00 p.m.

Website: https://www.cityofblythe.ca.gov/27/Planning-Zoning

Palo Verde Valley Library

125 West Chanslor Way
Blythe, CA 92225
Phone: 760-922-5371
Hours: Monday – Friday 10 a.m. to 4 p.m.

Agencies, organizations, and interested parties who wish to comment on the Draft EIR during the 45-day public review period are requested to provide written comments to:

Mallory Crecelius
City of Blythe
235 North Broadway
Blythe, CA 92225
Phone: 760-922-6161
Email: msutterfield@cityofblythe.ca.gov

Upon completion of the public review period, written responses to all public comments received will be prepared and included in the Final EIR. Responses to comments received from public agencies will

be made available for review at least 10 days prior to the public hearing before the City Council, at which the certification of the EIR will be considered.

2.3 Scope of the EIR

2.3.1 Notice of Preparation

The City of Blythe issued a Notice of Preparation (NOP) to prepare a Draft EIR for a 30-day review period between December 14, 2021, and January 14, 2022. The NOP included an evaluation of the environmental topics that will and will not be analyzed within the Draft EIR. The evaluation was prepared using Appendix G, Environmental Checklist Form, in the California Environmental Quality Act (CEQA) Guidelines. Appendix G assesses the potential impacts associated with the proposed project. The Edelweiss Sustainable Farms NOP is included in **Appendix A** of this Draft EIR. The Draft EIR will address all environmental topics, excluding agriculture and forestry resources, land use and planning, mineral resources, population and housing, recreation, and wildfires. Using the CEQA Guideline Environmental Checklist Form, it was determined in the NOP that these elements would result in no impacts related to the proposed project, and therefore, are not required to be analyzed further in the Draft EIR. Please consult **Appendix A** of this Draft EIR for the analysis provided in the Notice of Preparation, and **Chapter 6.0**, ***Effects Not Found to be Significant,*** for detail of those topics not further analyzed in this document.

The NOP was sent to the State Clearinghouse and to all responsible and trustee agencies, and to interested parties. Issues raised by agencies and the public in response to the NOP were considered in the preparation of the Draft EIR. The NOP and comments received are contained in **Appendix A** of this EIR.

The City received four comment letters during the NOP comment period. Three comment letters were from Public Agencies, and one comment letter was from a private organization. The comments are listed below:

Public Agencies -

1. *Native American Heritage Commission (NAHC),* in their letter dated December 7, 2021, requires that the project participate in Assembly Bill (AB) 52 and Senate Bill (SB) 18 tribal consultation.
2. *California Department of Fish and Wildlife (CDFW),* in their letter dated December 12, 2021, offers comments and recommendations for the project to assist the City in identifying the project's potential impacts to biological resources. CDFW recommends discussion topics and resources to be addressed in the Draft EIR.
3. *California Department of Cannabis Control (DCC),* in their letter dated December 17, 2021, offers comments and recommendations about the anticipated scope of the EIR and recommendations regarding issues the City should address and consider as part of the preparation of the Draft EIR.

Private Organization -

4. *CARES CA,* in their letter dated December 15, 2021 requests a copy of all records related to the project.

The comment letters received by Public Agencies are contained in **Appendix A**.

2.3.2 CEQA Standards for Adequacy

This Draft EIR provides an evaluation of the potential environmental effects associated with the development of the approximately 34-acre Edelweiss Sustainable Farms project site, located south of Hobsonway and north of the Interstate 10 freeway.

This EIR was prepared in accordance with Section 15151 of the *State CEQA Guidelines*, which defines the standards for EIR adequacy as follows:

> *An EIR should be prepared with a sufficient degree of analysis to provide decision-makers with information which enables them to make a decision which intelligently takes account of environmental consequences. An evaluation of the environmental effects of a proposed project need not be exhaustive, but the sufficiency of an EIR is to be reviewed in the light of what is reasonably feasible. Disagreement among experts does not make an EIR inadequate, but the EIR should summarize the main points of disagreement among the experts. The courts have looked not for perfection but for adequacy, completeness, and a good faith effort at full disclosure.*

The City of Blythe directed the preparation of this document in fulfillment of its environmental review requirements pursuant to provisions of *CEQA (Public Resources Code Section 21000-2117*), the 2022 *CEQA Guidelines* and the Lead Agency's local CEQA implementation requirements, all as amended.

This EIR includes mitigation measures that are provided to eliminate or reduce to acceptable levels the environmental impacts associated with the development of the approximately 34-acre project site.

2.4 Organization of the EIR

This Draft EIR has been prepared as a Project-level EIR to evaluate the proposed project. A comprehensive project description including exhibits and maps is presented in **Chapter 3.0, *Project Description***.

The Draft EIR is organized into the following main chapters and sections:

Table of Contents. Lists the Draft EIR chapters and sections with their corresponding page numbers.

Glossary of Terms. This chapter contains a full list of acronyms that were used throughout the EIR.

List of Preparers. List the report preparers and consultants, along with agencies, and individuals that provided information used to prepare this Draft EIR.

Chapter 1.0: Executive Summary. This chapter includes a summary of the proposed project and a discussion of the alternatives to the project. A brief description of the areas of controversy and issues to be resolved, and overview of potential impacts, and the Mitigation, Monitoring and Reporting Program (MMRP) are also included in this section.

Chapter 2.0: Introduction. This chapter provides an introduction and overview describing the purpose of the EIR, a brief history of the project, the scope of the EIR, and the review and certification process. This chapter identifies the documents incorporated by reference in the EIR and where these documents can be reviewed. Finally, this chapter includes a summary of the comments received on the Notice of Preparation.

Chapter 3.0: Project Description. This chapter includes a detailed description of the proposed project, including its location, existing site conditions, project history, and project characteristics. Also included is a discussion of the project objectives, intended uses of the EIR, responsible agencies and their roles in the environmental process, and approvals that are needed for the proposed project.

Chapter 4.0: Environmental Impact Analysis. This chapter contains a comprehensive evaluation of the environmental impacts of the proposed project. Impacts are organized into major environmental topics. Each section includes a description of the environmental setting (the existing physical environment and the regulatory environment); the methodology for evaluating impacts, significance criteria, potential impacts, a discussion of existing rules and regulations imposed on the project by the lead, responsible and trustee agencies, to reduce potential environmental effects of the project; project design features built into the project to comply with regulatory requirements, such as Title 24 (Energy) and the California Building Code (CBC); proposed mitigation measures (in addition to environmental requirements already imposed on the project by regulatory agencies), and a finding of the level of significance after mitigation. The impact evaluation considers direct impacts, indirect impacts, and cumulative impacts. The following environmental topics are addressed within Chapter 4.0.

Section 4.1 – Aesthetics: Addresses visual impacts that may occur with implementation of the proposed Specific Plan.

Section 4.2 – Air Quality: Addresses the local and regional air quality impacts associated with project implementation as well as consistency with the Mojave Desert Air Quality Management Plan (MDQMP). This section also addresses the potential for odors to affect existing and future sensitive receptors in the project's vicinity.

Section 4.3 – Biological Resources: This section provides a summary of local conservation areas, addresses the project's impacts on habitat and wildlife in the area, and summarizes the biological resources study prepared for the project.

Section 4.4 – Cultural Resources: Addresses the impacts of project development on historic, cultural, and archaeological resources. Note: Tribal Cultural Resources are addressed separately in Section 4.13 below.

Section 4.5 – Energy: Addresses the impacts of project development on energy resources during project construction and operation, as well as whether the project will conflict with a state or local plan for renewable energy or energy efficiency.

Section 4.6 – Geology and Soils: Addresses the potential impacts the project may have on soils and assesses the effects of the project in relation to geologic and seismic conditions. This section also addresses paleontological resources.

Section 4.7 – Greenhouse Gas Emissions: Addresses the project's estimated contribution to global climate change through the emission of greenhouse gases during construction and long-term operation of the proposed project.

Section 4.8 – Hazards and Hazardous Materials: Addresses the likelihood of the presence of hazardous materials or conditions on the project site and in the project area or the transport of hazardous materials that may have the potential to impact human health. This section also includes an analysis of the potential for the site to be impacted by wildland fires.

Section 4.9 – Hydrology and Water Quality: Addresses the impacts of the project on regional and local hydrological conditions, including drainage areas, and changes in flow rates; as well as potential impacts that may currently exist that must be addressed during project design to prevent flooding. This section also summarizes the requirements for storm water control, retention and release for the project area.

Section 4.10 – Noise: Addresses the project's noise impacts that may occur during construction and operation of future land uses after compliance with the City's Noise Ordinance.

Section 4.11 – Public Services: Addresses the project's impacts upon public service providers including fire and police services.

Section 4.12– Transportation: Addresses the project's impacts on the local and regional roadway system including emergency access, public transportation, bicycle, and pedestrian facilities, as well as an analysis of vehicle miles traveled (VMT).

Section 4.13 – Tribal Cultural Resources: Addresses the potential adverse impacts to tribal cultural resources, including a summary of the City's Native American consultation with affected tribes.

Section 4.14 – Utilities and Service Systems: Addresses the project's impacts on water supply, wastewater treatment, storm drains, electricity, natural gas, telecommunications, and solid waste.

Chapter 5.0: Other CEQA Required Sections. This chapter provides a summary of significant environmental impacts, including unavoidable and growth-inducing impacts, and any irreversible and

irretrievable commitment of resources. This chapter also provides a summary of environmental issues where findings can be made that the project would not cause an impact on the environment or that the impact would be negligible.

Chapter 6.0: Effects Not Found to Be Significant. This discussion presents the analysis of the environmental topic thresholds that result in no impacts. The conclusion that the proposed project has no impacts related to agriculture and forestry, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, public services, recreation, and wildfire, per the CEQA Guidelines, are summarized in this chapter.

Chapter 7.0: Alternatives. This chapter compares the impacts of the proposed project with four project alternatives: the No Project Alternative where no development would occur, a Reduced Density Alternative, a Cannabis Development/Leased Buildings Alternative, and a General Commercial Alternative that is consistent with the City's existing General Plan and Zoning Development.

Chapter 8.0: References. This chapter contains a full list of references that were used in the preparation of the EIR.

Appendices. Includes all notices and other procedural documents pertinent to the preparation of the EIR, as well as all technical material prepared to support the environmental analysis.

2.5 Reference Documents

2.5.1 Documents Incorporated by Reference

As permitted by CEQA Guidelines Section 15150, this Draft EIR has referenced several public documents. Information from the documents, has been incorporated by reference, and has been briefly summarized in the appropriate sections(s).

The documents (and their locations) include:

- Blythe General Plan

  (Blythe Website: https://www.cityofblythe.ca.gov/DocumentCenter/View/302/General-Plan-2025---Entire-Document?bidId=)

- Blythe General Plan Environmental Impact Report

  (Blythe EIR Website: https://www.cityofblythe.ca.gov/DocumentCenter/View/248/10-IntroductionJan07?bidId=)

2.5.2 Documents Prepared for the Project

The technical studies prepared for the proposed project and other informational documents are listed below, with their corresponding appendices in parentheses. These documents are included in their entirety as part of the appendices for the Draft EIR.

Appendix A	Notice of Preparation and Public Comment Letters
Appendix B	Photometric Plan
Appendix C	Air Quality Impact Analysis
Appendix D.1	Biological Report
Appendix D.2	Biological Memo
Appendix E	Cultural Report
Appendix F.1	Engineering Package Submittal
Appendix F.2	Southern California Edison Will Serve Letter
Appendix G	Geotechnical and Infiltration Investigation
Appendix H	Paleontological Report
Appendix I	Greenhouse Gas Analysis
Appendix J	Phase I Environmental Site Assessment
Appendix K	Preliminary Hydrology Report
Appendix L	Noise Study
Appendix M.1	Traffic Study
Appendix M.2	Vehicle Miles Traveled (VMT) Analysis

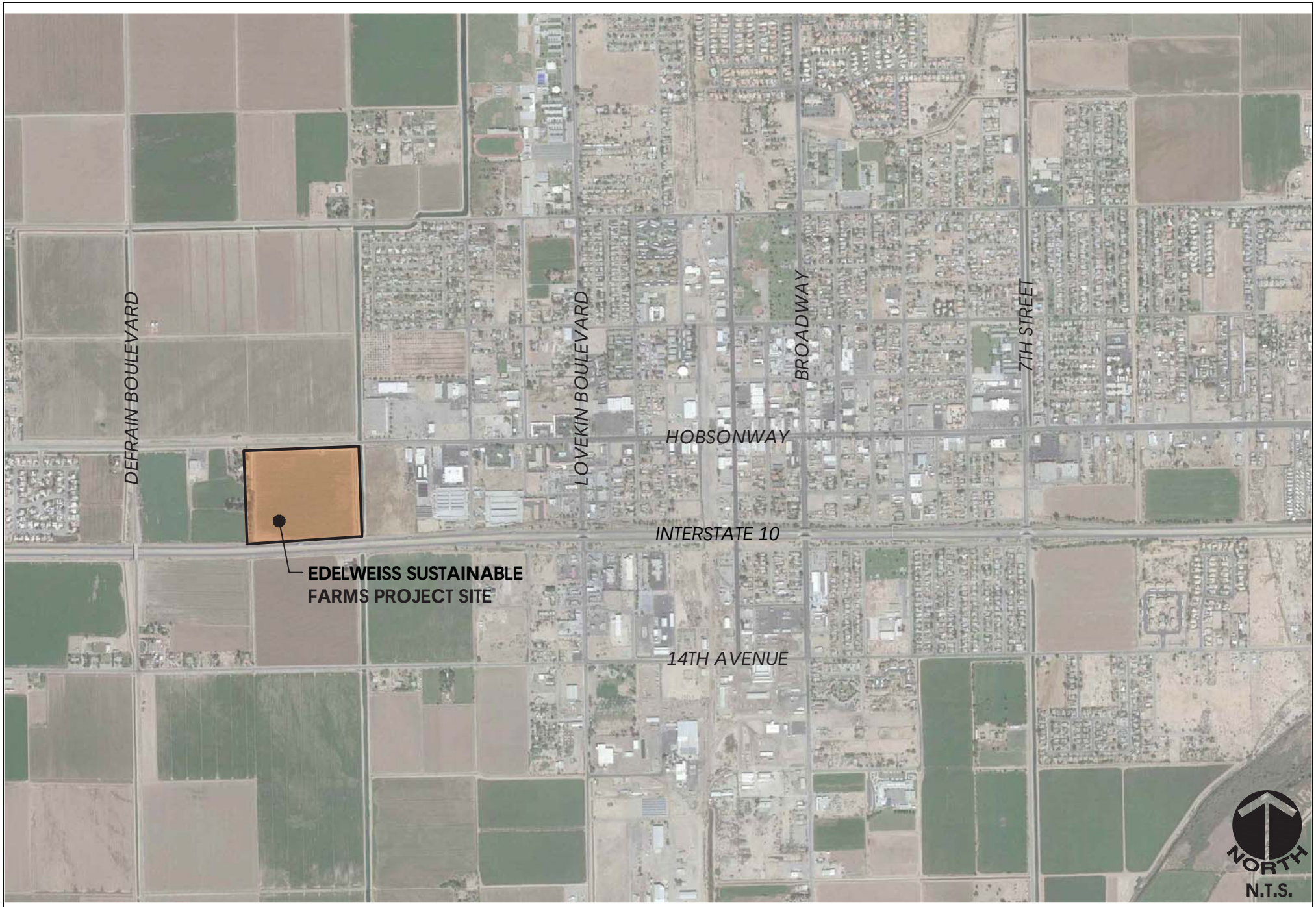
Chapter 3.0 Project Description

3.1 Introduction

This section of the Draft EIR describes the location, objectives, and characteristics of the proposed Edelweiss Sustainable Farms project ("project") and the intended uses of this Draft EIR, as required by the CEQA Guidelines. Included in this section is a description of the proposed project's technical, economic, and environmental characteristics.

3.2 Project Location

The City of Blythe is located in the Palo Verde Valley, Riverside County. **Exhibit 3-1*, Regional Aerial Photograph***, shows the City's location within the larger Palo Verde Valley region. The project site encompasses an area of approximately 34 acres in the western portion of the City of Blythe. As shown in **Exhibit 3-2*, Vicinity Map***, the local area is characterized as a developing area with a number of agricultural properties to the north, west, and south, and vacant land and commercial buildings to the east. Hobsonway delineates the property's northern boundary, while Interstate 10 delineates the southern boundary. An existing irrigation canal, maintained by the PVID, is located along the property's eastern boundary. **Exhibit 3-3, *Aerial Photograph***, displays an aerial view of the project site, outlining section lines, project boundary, adjacent roadways and neighboring communities. Further discussion of the land uses adjacent, and in proximity to the project, is included in the following section, *Surrounding Land Uses*. The project is located in a portion of the northeast ¼ of the southwest ¼ of Section 31, Township 6 South, Range 23 East, San Bernardino Meridian; and at Latitude 33° 36' 31" N, Longitude 114° 36' 59" W (approximate geographic center of the site).

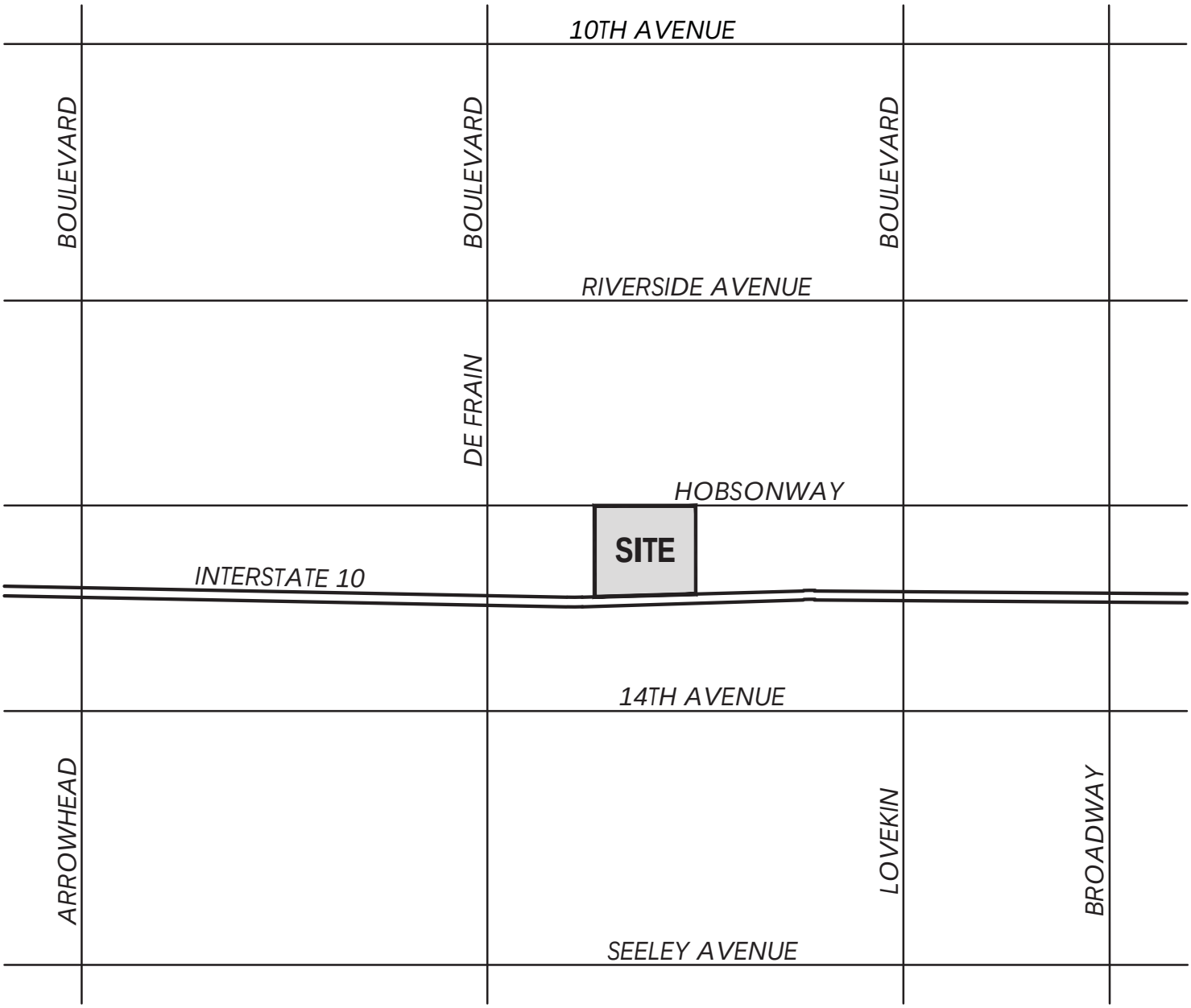


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REGIONAL AEIRAL PHOTO

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 3-1



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VICINITY MAP
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EXHIBIT 3-2



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0 NORTH 200 FT

AERIAL PHOTOGRAPH
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 3-3

3.3 Surrounding Land Uses

As shown in **Exhibit 3-2, *Vicinity Map***, and **Exhibit 3-3, *Aerial Photograph***, the project occupies approximately 34 acres of agricultural land in the City of Blythe, California. The property boundaries are delineated by Hobsonway on the north; an irrigation canal ("C Canal") on the east; Interstate 10 on the south; and a residential lot and agricultural land on the west. Land uses surrounding project area are as follows (see the aerial photograph in **Exhibit 3-2**):

Direction	Description
North	• Hobsonway • Agricultural Property (not within the City's jurisdiction)
East	• Irrigation Canal C (maintained by Palo Verde Irrigation District) • Vacant, undeveloped land • General Commercial buildings and operations
South	• Interstate 10 • Agricultural Property south of Interstate 10 (not within the City's jurisdiction)
West	• Agricultural Property • Residential Structure and smaller ancillary structures

3.4 Project Site History

The project property currently operates as agricultural land. Aerial photographs with coverage of the site and vicinity were obtained for years 1948 through 2016. Between the years 1948 to 1961, the property was mostly occupied by cultivated farmland with row crops. One or two structures with mature tree plantings were noted at the northeast corner of the site. The surrounding context included Highway 60 to the north and C Canal to the east. Surrounding land uses included farmland and a drive-in theater facility. By 1973, Interstate 10 was constructed south of the project site, apparently resulting in land dedication toward the transportation corridor, such that the former agricultural field extent was truncated on the south. On-site cultivation patterns and existing structures appear unchanged. By 1976, the structures and mature trees mentioned above were demolished, resulting in a cultivation area that remained relatively unchanged until the present day. From 1981 to 2016, there were no discernable changes to the field crop operations or other site conditions. The historical aerial photographs are provided in **Appendix J, *Phase I Environmental Site Assessment.***

3.5 Proposed Project

3.5.1 Project Objectives

The project area consists of approximately 34 acres. Of that, approximately 26 acres consist of cultivated row crops and approximately 8 acres are occupied by a combination of dirt access paths and earthen irrigation channels along the western, northern, and eastern edges. The project proposes to develop twelve buildings for the cultivation and manufacturing of cannabis.

The project has identified the following objectives:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;
- Be responsible civic and corporate citizens by providing employment opportunities to the City of Blythe and ensuring project licensing is compliant with the State of California cannabis business licensing;
- Bring a sustainable and expandable model of commerce to Blythe;
- Diversify Blythe's economic and general commercial base;
- Bring economic growth to Blythe including employment, taxes and an associated multiplier effect; and
- Provide a legal holistic, sustainable cannabis option to patients and consumers in Blythe.

3.5.2 Project Description

The project area encompasses approximately 34 acres. As previously stated in Section 3.4, *Project Site History*, the project site currently operates as an agricultural field. The project proposes several applications leading to the development of a cannabis facility, consisting of twelve buildings and associated infrastructure (retention, driveways, parking, landscaping, a primary gated access point, two emergency access points, and perimeter fencing). The ultimate build-out of the approximately 34-acre area includes one 46,132-square-foot, two-story building; two 46,848-square-foot one-story buildings; and nine 43,776-square-foot, one-story buildings for the cultivation and manufacturing of cannabis. The applicant is requesting approval of a Site Plan as the entitlement. A detailed description of the requested entitlement is included below.

Site Plan Approval

The Site Plan Approval is a type of development evaluation process conducted by the City of Blythe for the permitting of certain types of land uses and review of proposed site plans. The purpose of the Site Plan Approval process is to ensure that a proposed development is in conformance with the standards and guidelines established by the various City departments, including Planning, Public

Works, Building Department and Fire Marshal, and Police Department. The process is intended to result in well-designed site plans and properly built projects.

During the Site Plan Approval process, the City reviews the project's site plan to ensure all relevant proposed features are provided on the site plan. The Technical Site Plan, which is included as **Exhibit 3-4**, was submitted to the City of Blythe for the project as a part of Site Plan Approval process. The Plan indicates the proposed building locations, loading areas, use of the proposed site, locations of proposed retention areas, entry points, as well as the location of existing improvements on the site, such as existing drainage and irrigation facilities. Building areas, number of stories, proposed uses, and locations of trash enclosures are also indicated on the Technical Site Plan. Off-street parking is not proposed for the project. All parking will be located within the fenced boundaries of the project site as indicated on the Technical Site Plan.

The Plan is also required to indicate the locations of parking lot and street lighting; water meter locations and backflow devices; City infrastructure (i.e., water and sewer); fencing plans; and locations of cannabis storage vaults and safe rooms.

Fencing Plan

The project proposes the use of fences during construction and operation of the project. During construction, temporary 8-foot no-cut/no-climb security fence (or equal) with razor wire is proposed to deter trespassing onto the property. Permanent property fencing will include 8-foot no-cut/no-climb security fence (or equal) during operation of the project. A security guardhouse is also proposed at the primary access point to monitor authorized personnel into and out of the property. A Preliminary Fencing Plan was submitted to the City of Blythe for the project as a part of Project Review. The Preliminary Fencing Plan indicates fence locations, phasing of development, and includes illustrations of proposed fencing, as shown in **Exhibit 3-5**.

Landscape

As a part of the Project Review, a conceptual landscape plan was submitted to the City. Project landscaping has been designed to balance aesthetic, water use, and security objectives. The project landscape will include large drought-tolerant trees, palms, and ground covers typically found in the region, such as mulga, smoothie thronless cascalote, desert museum palo verde, thornless mesquite, pink dawn chitalpa, tipu tree, and date palm. Ground covers proposed for the project includes brittle bush, resin spurge, thunder cloud Texas sage, and senna. Exterior irrigation will use drip or micro-spray applicators to avoid overwatering and promote water efficiency. Two retention basins are proposed in the center of the site, between Buildings 1 and 7 and Buildings 6 and 12. Turfgrass is proposed in the retention basins as a ground cover. The landscaped areas and the retention basins proposed for the site will occupy approximately 9.17 acres of the property. Existing irrigation channels are located along the northern and eastern property boundaries. No improvements or modifications

to these existing irrigation facilities are proposed. See **Exhibit 3-6, *Conceptual Landscape Plan***, for locations of the proposed trees and plantings on the project site.

3.5.3 Project Components

The build out components include:

- 12 buildings for cultivation/manufacturing operations
  - Building 1 is two-stories and 46,132 square feet
    - 20,000-square-foot canopy size
  - Buildings 2 and 8 are one-story and 46,848 square feet
  - Buildings 3 through 7 and 9 through 12 are one-story and 43,776 square feet
  - Gross and net building square footages are indicated in the table below:

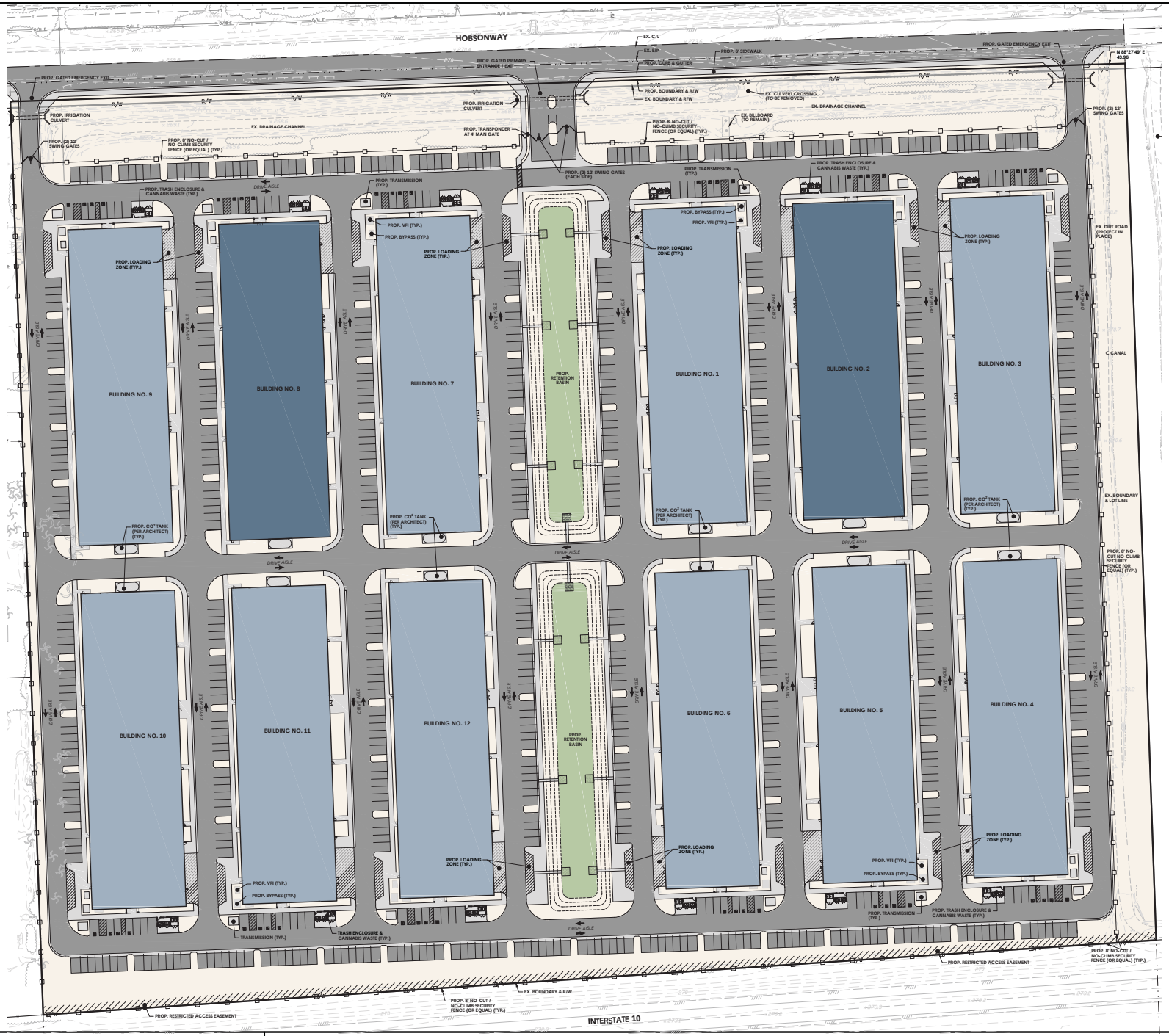
Table 3-1 Building Square Footages (SF)

Building No.	Gross SF	Net SF
1	46,132	38,121
2	46,848	40,960
3	43,776	36,554
4	43,776	36,554
5	43,776	36,554
6	43,776	36,554
7	43,776	38,121
8	46,848	40,960
9	43,776	36,554
10	43,776	36,554
11	43,776	36,554
12	43,776	36,554
Total	**533,812**	**450,594**

- Two proposed landscaped retention basins located in the center of the property
  - Between Building 1 and Building 7 and Building 6 and Building 12
- 736 parking stalls to be provided
  - Located adjacent to the proposed buildings
- Three gated access points
  - Access points will consist of two, 12-foot swing gates
  - Primary access on Hobsonway at the center of the northern boundary
    - Security guardhouse located at this entry point
  - Emergency ingress/egress gates at northeast and northwest corners of site, on Hobsonway
- The project will construct a bus stop at the northwest side of the property as required by the Palo Verde Valley Transit Agency.

  - The bus stop is proposed to be constructed during phase 3 of the project, unless the Palo Verde Valley Transit Agency requests the bus stop earlier.
- 8-foot no-cut/no-climb security fence (or equal) surrounding property during project construction and operation
- Sewer connections to the City of Blythe's existing offsite sewer lines located along Hobsonway
  - Approximately 1,200 linear feet of 8-inch PVC sewer pipes will be placed underground to connect to existing City manhole #192.
  - Undergrounding of the proposed sewer lines will occur along Hobsonway in areas adjacent to the project boundary, as well as offsite areas east of the project site, along Hobsonway.
- New electrical infrastructure is required after the development of the first building.
  - A circuit bank will be developed at an existing substation for the operation of buildings 2 through 12.
  - The facility will be designed and constructed to the design standards of and in coordination with SCE. The proposed improvements (i.e., circuit bank) must be approved by SCE to ensure the design standards are met, and will be limited to improvements within existing SCE facilities and disturbed rights-of-way.
- Project operations:
  - Manufacturing operations on site includes non-volatile, fresh frozen extraction
  - 534 employees; 2,279 trip-ends per day
  - Water reclamation (condensate water) and advanced water treatment is proposed for the project
    - The water facilities proposed for the project will consume 20 percent of City water compared to normal cannabis facilities.
    - 4,500 gallons per day (gpd) per building
  - The project will use light emitting diode (LED) and high-pressure sodium vapor (HPS) lighting fixtures during plant growth. The type of fixture is dependent on the stage of plant.
    - Building 1 will have 980 HPS bulbs. These bulbs will be changed annually. These lights will be converted to LED lights when building 3 is complete.
    - Buildings 2 through 12 will have 1,225 LED lights each. LED light bulbs have a lifespan of 5 to 7 years.
  - Odor control methods includes activated carbon filters, calculated by cubic volume of space.
  - Salt based fertilizers, pH up and pH down kits, and organic pesticides will be used during operation for plant health and pest management.
  - Twelve carbon dioxide (CO_2) tanks, stored outside each building, are proposed to enhance plant growth during cultivation.
    - Each tank will be 19 feet in height, and approximately 7.2 feet in width and depth.
    - Each tank will also have the capacity to hold between 215,100 cubic feet to 220,500 cubic feet of compressed CO_2.

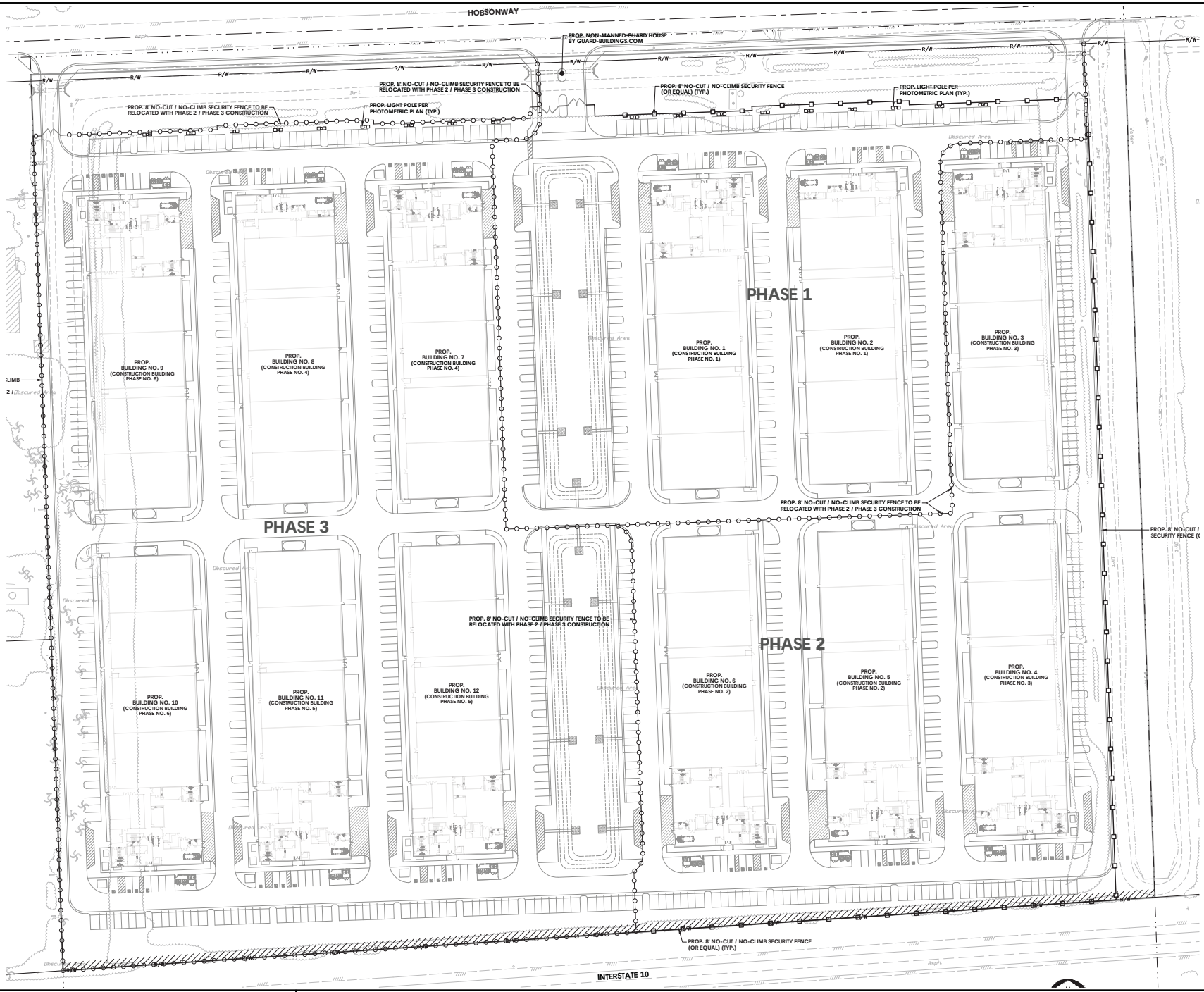
- Emergency back-up propane generators will be used onsite.
  - The back-up generators will not be full back-up; they will generate 30 percent of demand load to keep the climate control (only) at a minimum, in order for the plants to survive.
- Trash and cannabis waste trash enclosures will be located at the northern side of buildings 1, 2, 3, 7, 8 and 9, and at the southern side of buildings 4, 5, 6, 10, 11 and 12.
- Each building will include 7,000 square feet of roof-top solar panels.



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SITE PLAN
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PRELIMINARY FENCING PLAN
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EXHIBIT 3-5



PERMANENT 8' NO-CUT /
NO-CLIMB SECURITY FENCE (OR EQUAL)



GUARD HOUSE BY GUARD-BUILDINGS.COM

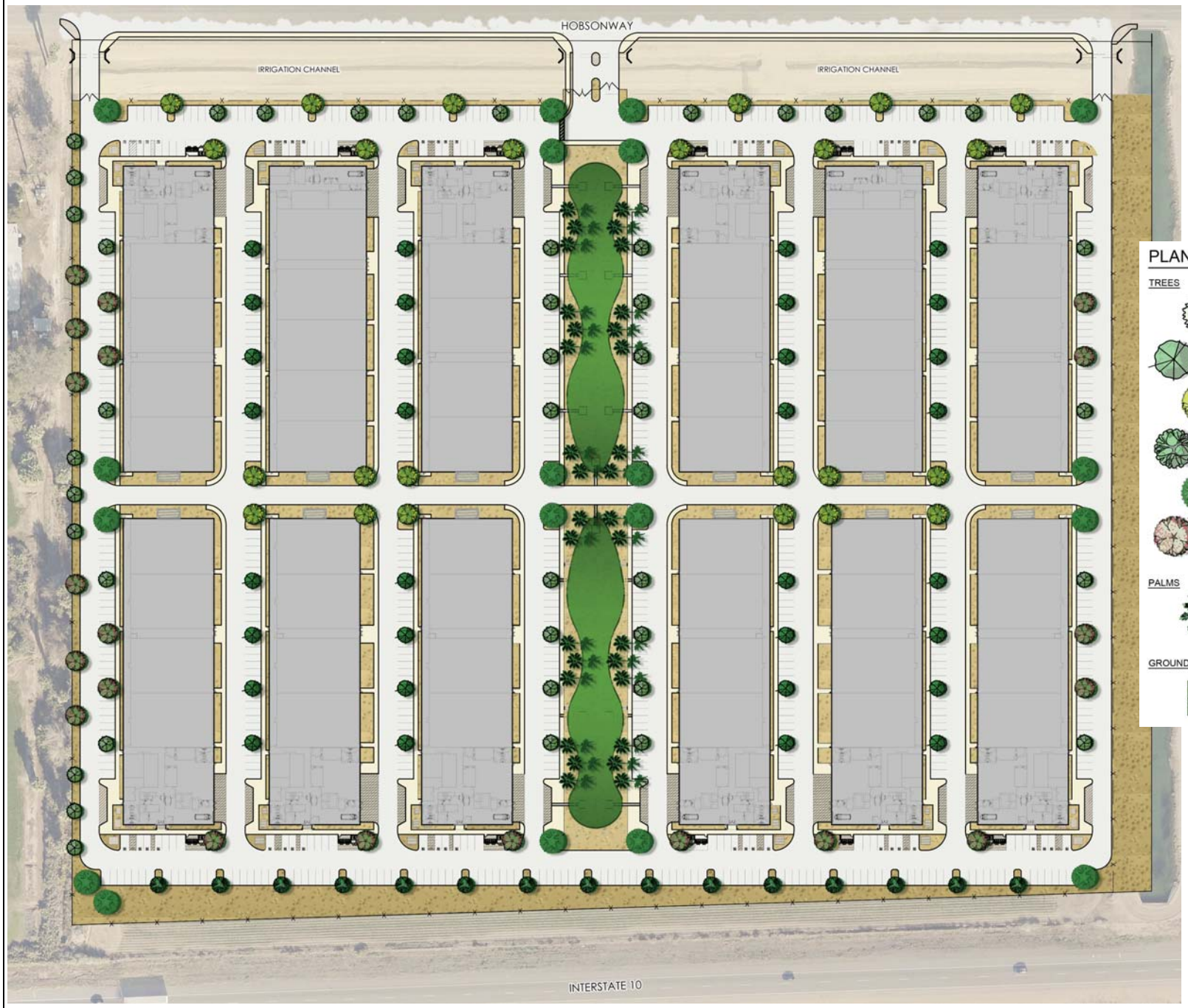


TEMPORARY 8' NO-CUT / NO-CLIMB
SECURITY FENCE (OR EQUAL) WITH RAZOR WIRE

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PRELIMINARY FENCING PLAN CONTINUED
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EXHIBIT 3-5



PLANT SCHEDULE

TREES	BOTANICAL / COMMON NAME
	ACACIA ANEURA MULGA
	CAESALPINIA CACALACO 'SMOOTHIE' TM SMOOTHIE THORNLESS CASCALOTE
	PARKINSONIA X 'DESERT MUSEUM' DESERT MUSEUM PALO VERDE
	PROSOPIS X 'AZT' AZT THORNLESS MESQUITE
	TIPUANA TIPU TIPU TREE
	X CHITALPA TASHKENTENSIS 'PINK DAWN' PINK DAWN CHITALPA

PALMS	BOTANICAL / COMMON NAME
	PHOENIX DACTYLIFERA DATE PALM

GROUND COVERS	BOTANICAL / COMMON NAME
	TURFGRASS PASPALUM

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CONCEPTUAL LANDSCAPE PLAN
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 3-6



TIPUANA TIPU



PARKINSONIA 'DESERT MUESEUM'



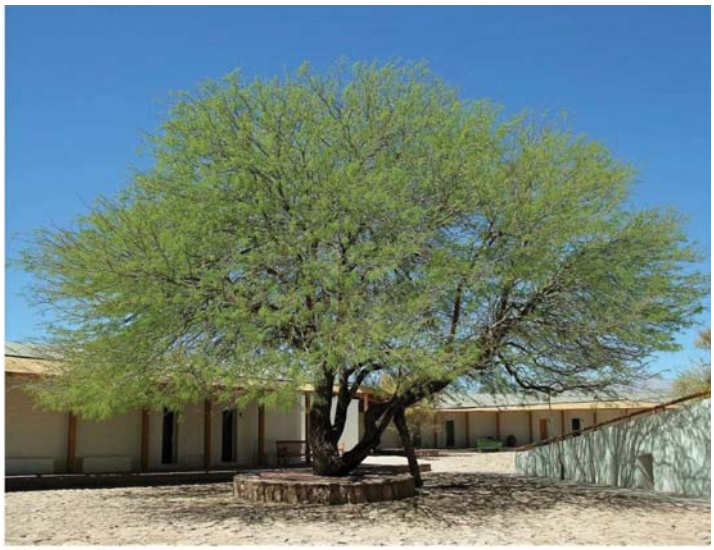
ACACIA ANEURA



x CHITALPA 'PINK DAWN'



CAESALPINIA 'SMOOTHIE'



PROSOPIS x 'AZT'



PHOENIX DACTYLIFERA

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CONCEPTUAL LANDSCAPE PLAN CONTINUED

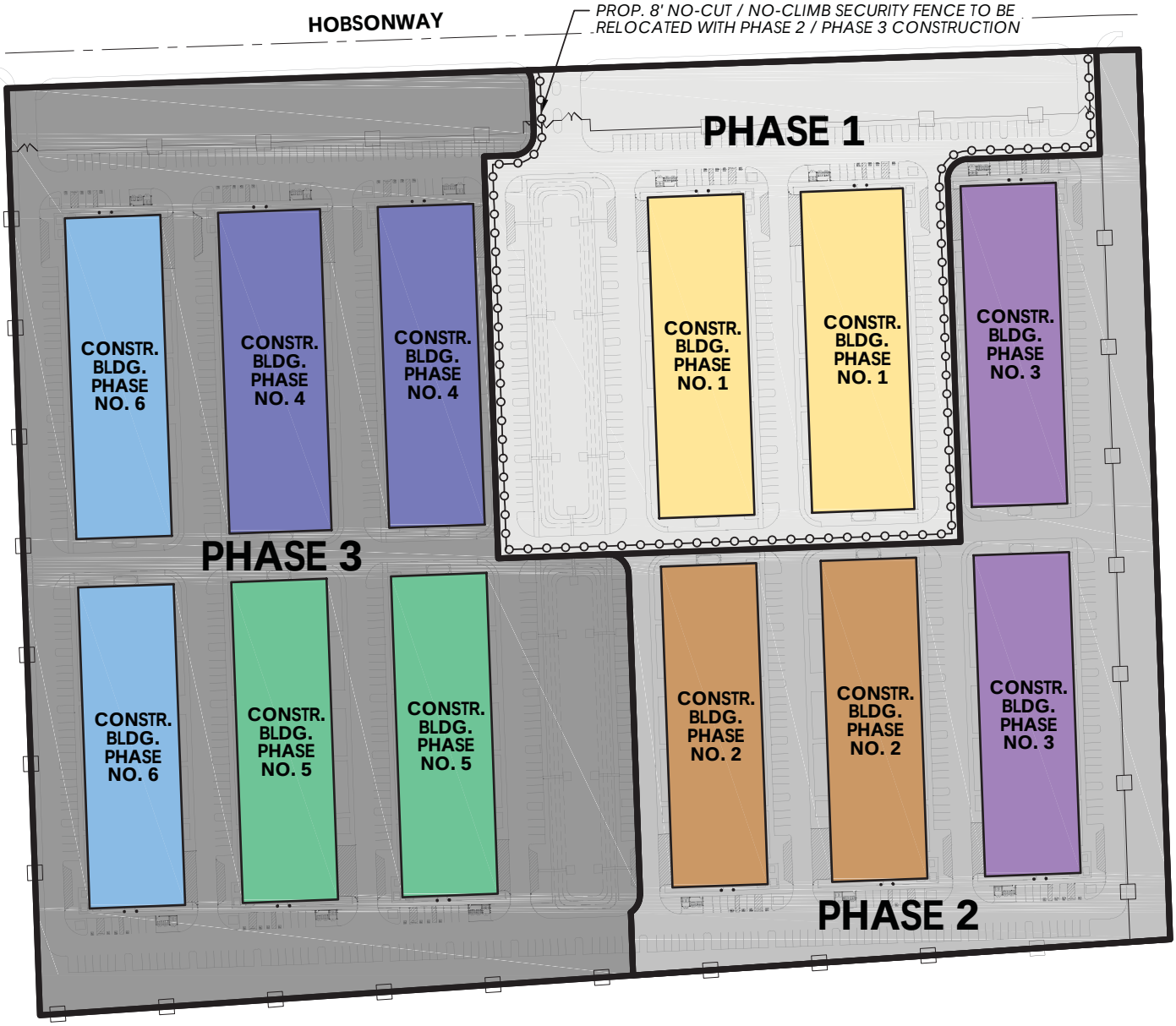
EDELWEISS SUSTAINABLE FARMS

EXHIBIT 3-6

3.5.4 Project Construction

Project construction will occur in three (3) primary phases. **Exhibit 3-7, *Conceptual Phasing Plan,*** reflects the anticipated construction sequence. Phased development will be accompanied by the orderly extension of circulation and parking facilities, public utilities, and infrastructure in accordance with the final conditions of approval for the project.

Phase 1 construction will commence with Buildings 1 and 2 and the northern retention basin. Phase 2 will develop then Buildings 5 and 6, and then Buildings 3 and 4 and the southern retention basin. Phase 3 construction would develop Buildings 7 and 8, then Buildings 11 and 12, and conclude with Buildings 9 and 10. Project phasing will occur one after the other, and a year apart.



PHASING MAP

N.T.S.

PHASING LEGEND	
PHASE NO. 1	
	CONSTRUCTION PHASE NO. 1
PHASE NO. 2	
	CONSTRUCTION PHASE NO. 2
	CONSTRUCTION PHASE NO. 3
PHASE NO. 3	
	CONSTRUCTION PHASE NO. 4
	CONSTRUCTION PHASE NO. 5
	CONSTRUCTION PHASE NO. 6

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CONCEPTUAL PHASING PLAN
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 3-7

3.6 Circulation Plan

Circulation for the proposed project includes the development of gated access points, internal drive aisles, and paved parking spaces. Primary access will occur at the center of the northern boundary. This access is located off of the existing public roadway, Hobsonway, a paved road, absent of curb and gutter improvements. The surrounding roadways will be improved to the standards of the City of Blythe General Plan Circulation Element. The segment of Hobsonway adjacent to the project's northern boundary will be constructed to its ultimate half-section width as a Major Arterial Collector (96-foot right-of-way) in compliance with the applicable City of Blythe Standards. A stop control will be installed at the project's primary access point but will not affect through traffic along Hobsonway. The primary access point will limit gated access to authorized individuals and personnel. The project entry from Hobsonway to the guardhouse will be 60 feet in length, which allows a stacking of 3 cars. Project-related vehicular access and entries are consistent with City requirements. Emergency ingress/egress gates are proposed in the northwest and northeast corners of the site. Existing irrigation channels are located south of Hobsonway, within the project boundaries. The project does not propose any changes to the irrigation channels.

The internal circulation system will consist of a series of roads providing access to the proposed buildings within the project area. The proposed internal rights of way will be 24 foot-wide drives. Pedestrian walkways will be located along the project frontage, adjacent to Hobsonway, as well as along building frontages and retention areas.

3.7 Infrastructure Plan

The system planned to serve the project will be designed to provide a coordinated infrastructure and public services to adequately serve the project area at full buildout. The project will be served by the following utilities:

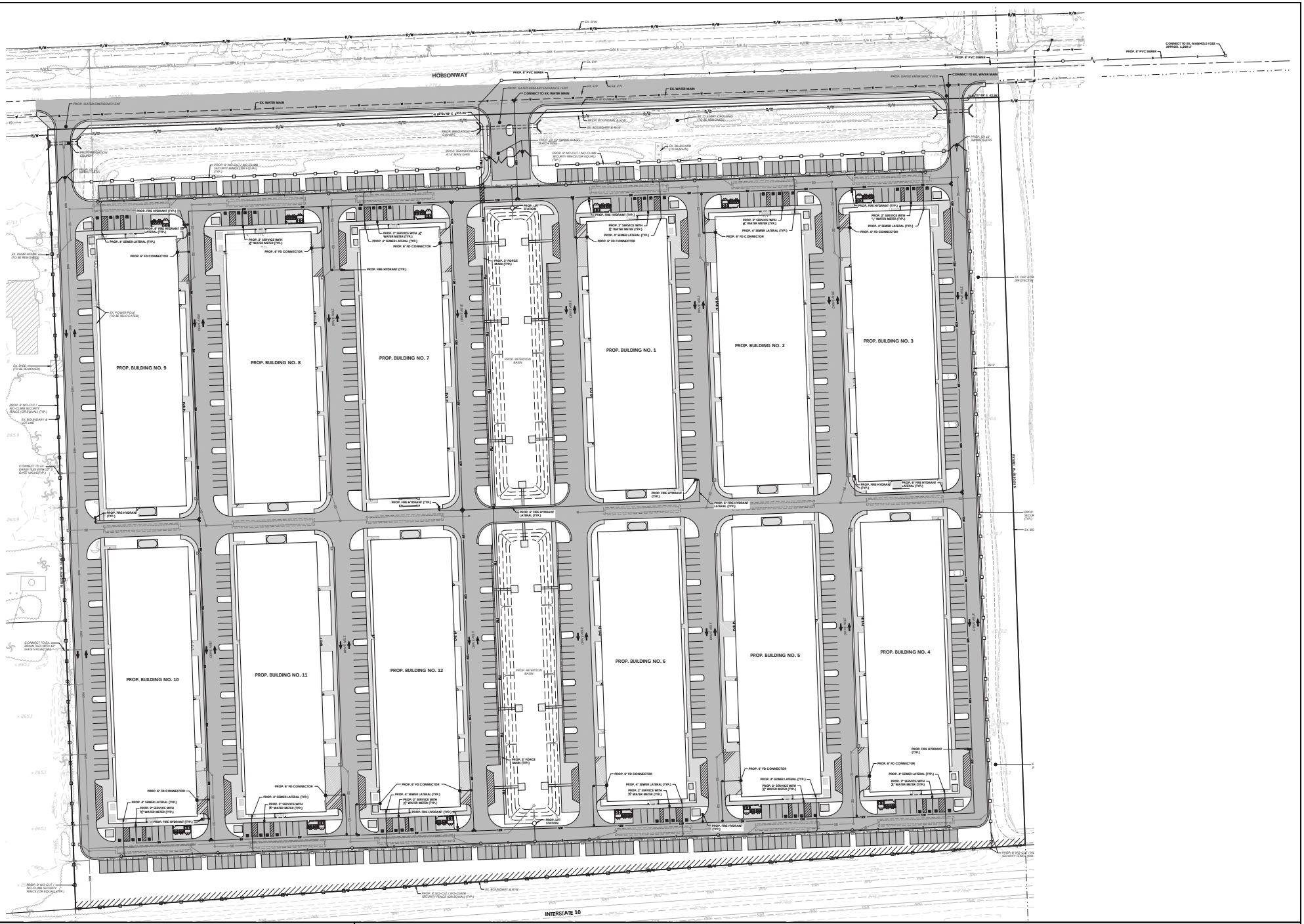
- Water and Sewer: City of Blythe
- Electricity: Southern California Edison (SCE)
- Gas: Southern California Gas Company

3.7.1 Water and Sewer

Water and sewer service for the project area is provided by the City of Blythe. The City of Blythe provides domestic water to the residents of the City. Blythe consists of four individual water systems: City of Blythe proper water system, Mesa Bluffs water system, Hidden Beaches water systems, and East Blythe County water district. Domestic water for the City of Blythe is obtained from 14 deep water wells and 5 storage tanks capable of storing 4.0 million gallons of water. The wells pump water directly into the distribution pipeline system and are activated by pressure reductions within the water distribution pipelines of the area surrounding each well. The City supplies approximately 1.75

billion gallons of water per year to the City and Sphere of Influence area. The maximum pumping capacity is 7.6 million gallons per day (mg/d) with a peak consumption of 6.6 mg/d. The average consumption is 3.7 mg/d.

- The project proposes to connect to the existing water lines located on Hobsonway (north). The proposed water lines will consist of 12-inch and 8-inch water lines. The project proposes sewer infrastructure throughout the project that will consist of gravity sewer lines, lift stations, and force mains, which will connect to the City of Blythe's existing sewer system along Hobsonway. Approximately 1,200 linear feet of 8-inch PVC sewer pipes will be placed underground to connect the project's sewer infrastructure to existing City manhole #192. Undergrounding of the proposed sewer lines will occur along Hobsonway in areas adjacent to the project boundary, as well as offsite areas east of the project site, along Hobsonway. The project will be required to conform to the requirements of the City of Blythe's programs and standards pertaining to water management and conservation. See **Exhibit 3-8** for the ***Conceptual Water and Sewer Plan***.



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NORTH
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CONCEPTUAL SEWER AND WATER
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3.7.2 Grading and Drainage

As shown in **Exhibit 3-9, *Conceptual Grading Plan***, the project includes a comprehensive drainage system that collects on- and off-site storm flows, retains the incremental post-development increase and discharges surface water at pre-development levels to protect the proposed buildings as well as downstream properties. Surface drainage will be conveyed by the local street system from development areas to a system of basins and underground storm drains. As illustrated in the conceptual site plan, multiple retention basins will be used to convey and safely capture surface flows. Retention basins will be constructed and sized to retain the 100-year 24-hour storm event as required by the City of Blythe. The existing irrigation channels along the property's northern and western boundaries, as well as C Canal along the project's eastern boundary, are not proposed to connect to the project's stormwater system. The project does not propose to change or discharge flows into the existing channels. The irrigation channels and C Canal will continue to operate under the Palo Verde Irrigation District to serve the existing agricultural properties in the surrounding area.

3.7.3 Other Utilities

Electric utilities for the site are provided by Southern California Edison (SCE). The project site is not currently provided with electric utilities. Therefore, the site will tie into existing electric infrastructure located north of Hobsonway. The project is required to coordinate with SCE to determine the property's point of connection to electric facilities. The project will be required to comply with development standards and guidelines established by SCE, which are anticipated to include improvements limited to the project site itself and existing roadways. On May 3, 2022, SCE provided a will serve letter stating that SCE will serve the project's electrical requirements per the CPUC and FERC tariffs. The will serve letter is included as **Appendix F.2** in this DEIR.

The site is within the Southern California Gas Company's service area for natural gas, and Sprint for telecommunications. The project will tie into the existing cable, gas and telecommunications lines located along Hobsonway. The project will not require or result in the relocation or construction of new natural gas, or telecommunication facilities.



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CONCEPTUAL GRADING PLAN
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3.8 Intended Uses of This EIR

This Draft EIR examines the environmental impacts of the project and identifies feasible measures to mitigate such impacts to the maximum extent feasible. The Draft EIR allows the City of Blythe, other responsible agencies, and interested parties to evaluate the proposed project and make informed decisions with respect to the requested entitlements.

The CEQA Guidelines require an EIR to include a statement briefly describing the intended uses of the EIR, including a list of agencies expected to use the EIR in their decision making and the list of the permits and other approvals required for project implementation.

The City of Blythe will use this Draft EIR to provide information on the potential environmental effects of the following proposed discretionary actions:

- Site Plan Approval

3.9 Responsible Agencies

Section 15124 (d) of the State CEQA Guidelines requires that the project description in an EIR include a list of permits and other approvals required to implement a proposed project, the agencies expected to use the EIR in their decision making, and related environmental review and consultation requirements. The following are anticipated responsible agencies which may rely on this Draft EIR for their discretionary approvals required to implement the project:

Southern California Edison

Approval or certification related to any other applicable general order, rule, or regulation concerning utility modification, conveyance, or delivery.

Colorado Regional Water Quality Control Board (Region 7)

Approval may include but is not limited to General Construction Stormwater Permit. Additionally, approval of a Water Quality Certification under Section 401 of the Clean Water Act may be required to verify compliance with water quality requirements (waste discharge and water quality).

Mojave Desert Air Quality Management District

Approval may include but is not limited to the project's Dust Control Plan and authority to construct/permit to operate all stationary sources.

Cannabis Cultivation, Extraction, and Refinement/Purification Permit Application form as required by District Rule 201, and a California Business & Professions Code Division 10 Odor Compliance form as required by District Rule 302, Subsection (J)(5), as well as obtain District permits for any miscellaneous process equipment that may not be exempt under District Rule 219 including, but not limited to:

- Internal Combustion Engines with a manufacture's maximum continuous rating greater than 50 brake horsepower.
- Odor control equipment.

3.10 Tribal Consultation

The Native American Heritage Commission (NAHC) recommends tribal consultation efforts under Senate Bill 18 (SB 18) and Assembly Bill 52 (AB 52), with California Native American tribes that are traditionally and culturally affiliated with the geographic area of the proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Accordingly, the City sent formal notification to those tribes who requested to receive notice of projects or who are known to be traditionally and culturally affiliated with the geographic area of the project on October 21, 2021.

The 90-day consultation period concluded on January 14, 2022. The City was not asked to consult further with the local tribes.

Chapter 4.0 Environmental Impact Analysis

4.1 Introduction

This Draft EIR for the project provides analysis of impacts for 14 environmental resource categories under CEQA. **Sections 4.1** through **4.14** discuss the environmental impacts that may result with implementation of the project.

4.2 Resource Categories Addressed in the EIR

The following environmental resource categories are addressed in this chapter:

4.1	Aesthetics	4.8	Hazards and Hazardous Materials
4.2	Air Quality	4.9	Hydrology and Water Quality
4.3	Biological Resources	4.10	Noise
4.4	Cultural Resources	4.11	Public Services
4.5	Energy Resources	4.12	Transportation
4.6	Geology and Soils	4.13	Tribal Cultural Resources
4.7	Greenhouse Gas Emissions	4.14	Utilities and Service Systems

Resource categories excluded as having no potential environmental effects of the project include agriculture and forestry resources, land use and planning, mineral resources, population and housing, recreation, and wildfires. (Please consult **Appendix A** and **Chapter 6.0, *Effects Not Found to Be Significant***).

4.3 Format of the EIR

Each section of this chapter is formatted with the following headings:

- Introduction
- Existing Conditions
- Regulatory Setting
- Project Impact Analysis, including Thresholds of Significance
- Cumulative Impacts
- Mitigation Measures
- Level of Significance After Mitigation
- Resources

Introduction

This section includes a brief introduction of the environmental impact to be analyzed within the section as it pertains to the project and identifies sources used to evaluate the potential environmental effects.

Existing Conditions

This section contains a discussion of the existing conditions, services and physical environment of the project site and vicinity.

Regulatory Setting

This section includes the local, State and federal regulatory framework utilized in the analysis.

Project Impact Analysis

Thresholds of Significance

Determining the severity of project impacts is fundamental to achieving the objectives of CEQA Guidelines Section 15091, which requires that decision makers mitigate, as completely as is feasible, the significant impacts identified in the EIR. If the EIR identifies any significant unmitigated impacts, CEQA Guidelines Section 15093 requires decision makers approving a project to adopt findings and a statement of overriding considerations that explains why the benefits of the project outweigh the adverse environmental consequences associated with implementation of the project.

The level of significance for each impact examined in the EIR was determined by considering the predicted magnitude of the impact against applicable significance criteria. Thresholds were developed using criteria from the CEQA Guidelines; State, federal, and local regulatory guidance; local/regional plans and ordinances; accepted practices; and consultation with recognized experts.

The following adjectives are used specifically to define the degree of impact used in the Impact Analysis and Mitigation analysis.

An "**adverse**" impact is any negative environmental result of the project, however small. As a disclosure document, the finding of an impact as "adverse" merely indicates that the project will cause an impact to occur compared to existing conditions, even though that impact may be less than significant. For example, the removal of vegetation from a vacant site might be considered adverse (i.e., "negative") but it may not exceed a local threshold such as loss of native plants or plant communities. Therefore, an impact may be adverse without being significant.

A "**significant**" impact is considered a substantial negative effect that exceeds a critical and accepted threshold for significant adverse environmental effects. CEQA defines a significant effect on the environment as "*a substantial or potentially substantial, adverse (i.e., negative) change in any of the physical conditions within the area by the project, including land, air, water, flora, fauna, ambient noise, and objects of historic or aesthetic significance…* (CEQA Guidelines, Section 15383). As

recommended in the CEQA Guidelines, impacts are also identified as "**potentially significant**" prior to mitigation, which is the standard for determining which potential impacts are studied in the EIR.

Methodology

This section discusses the methodology used during the technical analysis where necessary.

Project Impact

The environmental impact analyses conducted for each environmental topic were undertaken pursuant to the following CEQA Guidelines sections:

- Section 15126, *Consideration and Discussion of Environmental Impacts*
- Section 15126.2, *Consideration and Discussion of Significant Environmental Impacts*

Each environmental impact discussion assesses project specific environmental effects of the proposed project.

The results of the impact analyses discussed under each environmental topic were evaluated for significance relative to thresholds of significance identified at the beginning of each environmental impact discussion. The thresholds of significance presented are consistent with the CEQA Guidelines Appendix G, *Environmental Checklist Form*, and where applicable, also includes quantified performance standards.

Cumulative Impacts

The basis for the cumulative impact analyses provided in this Draft EIR is consistent with Section 15130, *Discussion of Cumulative Impacts*, of the CEQA Guidelines. In particular, Section 15130 (b)(1)(A) as follows:

> *The discussion of cumulative impacts shall reflect the severity of the impacts and their likelihood of occurrence, but the discussion need not provide as much detail as is provided for the effects attributable to the project alone. The discussion should be guided by the standards of practicality and reasonableness and should focus on the cumulative impact to which the identified other projects contribute rather than the attributes of other projects which do not contribute to the cumulative impact.*

A cumulative impact analysis may be conducted and presented by either of two methods (CEQA Guidelines § 15130(b)(1)):

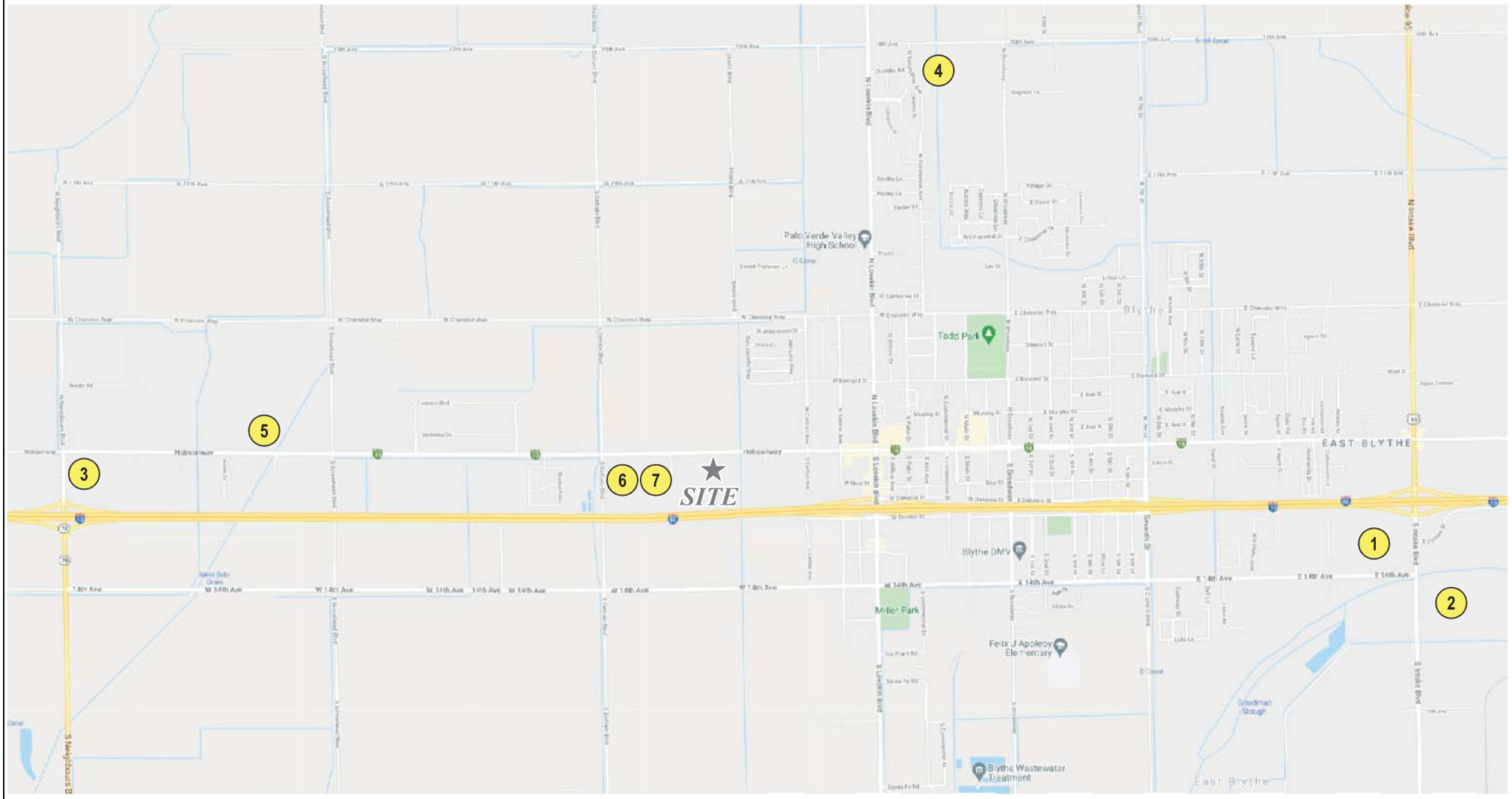
> *(A) a list of past, present, and probable activities producing related or cumulative impacts; or*
>
> *(B) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document that has been adopted or certified, which*

described or evaluated regional or area-wide conditions contributing to the cumulative impact.

This discussion uses the cumulative list approach to analyze the project's cumulative impacts in conjunction with the seven additional cumulative projects indicated in **Table 4.0-1, *Cumulative Projects,*** below, and other factors identified for each environmental topic (such as regional thresholds). An inventory of past, present, and reasonably foreseeable future projects within the vicinity of the project site is presented in **Table 4.0-1** and shown on **Exhibit 4.0-1**.

Table 4.0-1 Cumulative Projects

Cumulative Projects						
Map #	***Project Name***	***Site address***	***Project***	***Land Use***	***Quantity***	***Present Status***
1	Blythe Green Complex	NWC Intake Blvd./14th Ave.	Cannabis	Manufacturing Distribution Admin/Office Cultivation Dispensary	54 EMP 15 EMP 6.5 TSF 592 EMP 5 TSF	Not Active *Omit as speculative at this time*
2	Palo Verde Campus	SEC Intake Blvd./14th Ave.	Cannabis	Manufacturing Admin/Office Cultivation	54 EMP 5 TSF 768 EMP	Not Active *Omit as speculative at this time*
3	Casablanca Farms	SEC Neighbours Blvd./Hobsonway	Cannabis	Admin/Office Cultivation	5 TSF 24 EMP	Not Active *Omit as speculative at this time*
4	Casa Bella	E of Lovekin Blvd. & S of 10th Ave.	Residential	SFDR	130 DU	Not Active *Omit as speculative at this time*
5	Blythe Ag-Gro I & II	2881 W. Hobsonway	Cannabis	Admin/Office Cultivation	2.45 TSF	In process
6	Fitzgerald Agriculture complex	100 Block of S. De Frain Boulevard	Cannabis	Cultivation	60 EMP 107.5 TSF	In process
7	Desert Comm Network	1790 W. Hobsonway	Cannabis	Admin/Office Cultivation	0.96 TSF 82.944 TSF 70 EMP	In process



LEGEND:

1 = CUMULATIVE DEVELOPMENT

N

Source: Exhibit 4-3, *Traffic Study*, Urban Crossroads, Inc.

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CUMULATIVE PROJECTS
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EXHIBIT 4.0-1

Mitigation Measures

In some cases, following the impact discussion, reference is made to State and federal regulations and agency policies that would fully or partially mitigate the impact. In addition, policies and programs from applicable local land use plans that partially or fully mitigate the impact may be cited. Project-specific mitigation measures, beyond those contained in other documents, are offset with a summary heading and described using the format presented below:

AES-1 Project-specific mitigation is identified that would reduce the impact to the lowest degree feasible.

Level of Significance After Mitigation

This section identifies the resulting level of significance of the impact following mitigation.

Resources

This section lists the sources used to evaluate the environmental topic. A compilation of the sources can also be found in **Chapter 8.0, *References***, of this EIR.

4.1 Aesthetics

4.1.1 Introduction

This section of the Draft EIR describes the existing aesthetic character of the project site and surrounding area. This section also analyzes the potential impacts to the aesthetic quality of the site and surroundings and determines whether project implementation would result in significant impacts. Descriptions and analysis in this section are based on information contained from photographs from a site inspection completed October 7, 2020, and a project-specific *Photometric Plan,* prepared by West Coast Electric (**Appendix B**), as well as other planning documents and aerial imagery of the project property and surrounding area. Sources used in the preparation of this section are identified at the end of the chapter, and in **Chapter 8.0, *References,*** at the end of this EIR.

4.1.2 Existing Conditions

Aesthetic Value and Quality

The perception and uniqueness of scenic vistas and visual character can vary according to location and composition of its surrounding context. The subjective values attributed to views are generally affected by the presence and intensity of neighboring man-made improvements, such as structures, overhead utilities, and landscaping, often in relation to the aesthetic quality offered by a natural background that may include open space, mountain ranges, or a natural landmark feature. The proximity and massing of structures, landscaping and other visual barriers interact with the visibility of surrounding environments to restrict or enhance the value of local characteristic views. The evaluation of scenic vistas takes into consideration the physical compatibility of proposed projects in relation to land uses, transportation corridors, or other vantage points, where the enjoyment of unique vistas may exist, such as residential areas or scenic roads.

Existing Conditions

The project site encompasses an area of approximately 34 acres in the western portion of the City of Blythe. The local area is characterized as a developing area with a number of agricultural properties to the north, west, and south, and vacant land and commercial buildings to the east. The project site has been in irrigated agricultural use since at least 1948, based on historical aerial imagery. In its existing condition, the property is characterized primarily by active agricultural uses consisting of cultivated row crops on approximately 26 acres of the site. The cultivated area is defined by the tilled soil rows on a relatively level ground surface. The western, northern, and eastern edges of the property are distinguished by a combination of dirt access paths and earthen irrigation channels. This system of irrigation and drainage facilities is served by the adjacent C Canal, located immediately east

of the property. C Canal. In addition to the irrigation facilities, a metal-framed billboard structure is installed along the northerly street frontage. Along the western property boundary includes a densely vegetated area, unrelated to agricultural crops. This area includes tree species such as palm trees and tamarisk, which have been watered with runoff water from the agricultural irrigation and drainage channels.

The site is currently located within the City of Blythe's General Commercial (C-G) land use and zoning designation. This designation is intended to provide for development of community-scale commercial development with market areas often extending beyond the City limits and immediate environs.

Topography

The project site is located in the Palo Verde Valley, which sits between the Palo Verde Mesa to the west, the Big Maria Mountains to the north, and the Dome Rock Mountains to the east. This is illustrated in **Exhibit 4.1-1, *Surrounding Topographic Features***. The dominant geologic feature in the Blythe area is the north-trending depression known as the Colorado River Trough, formed by flooding of the Colorado River, regional faulting, downwarping and sediment filling.

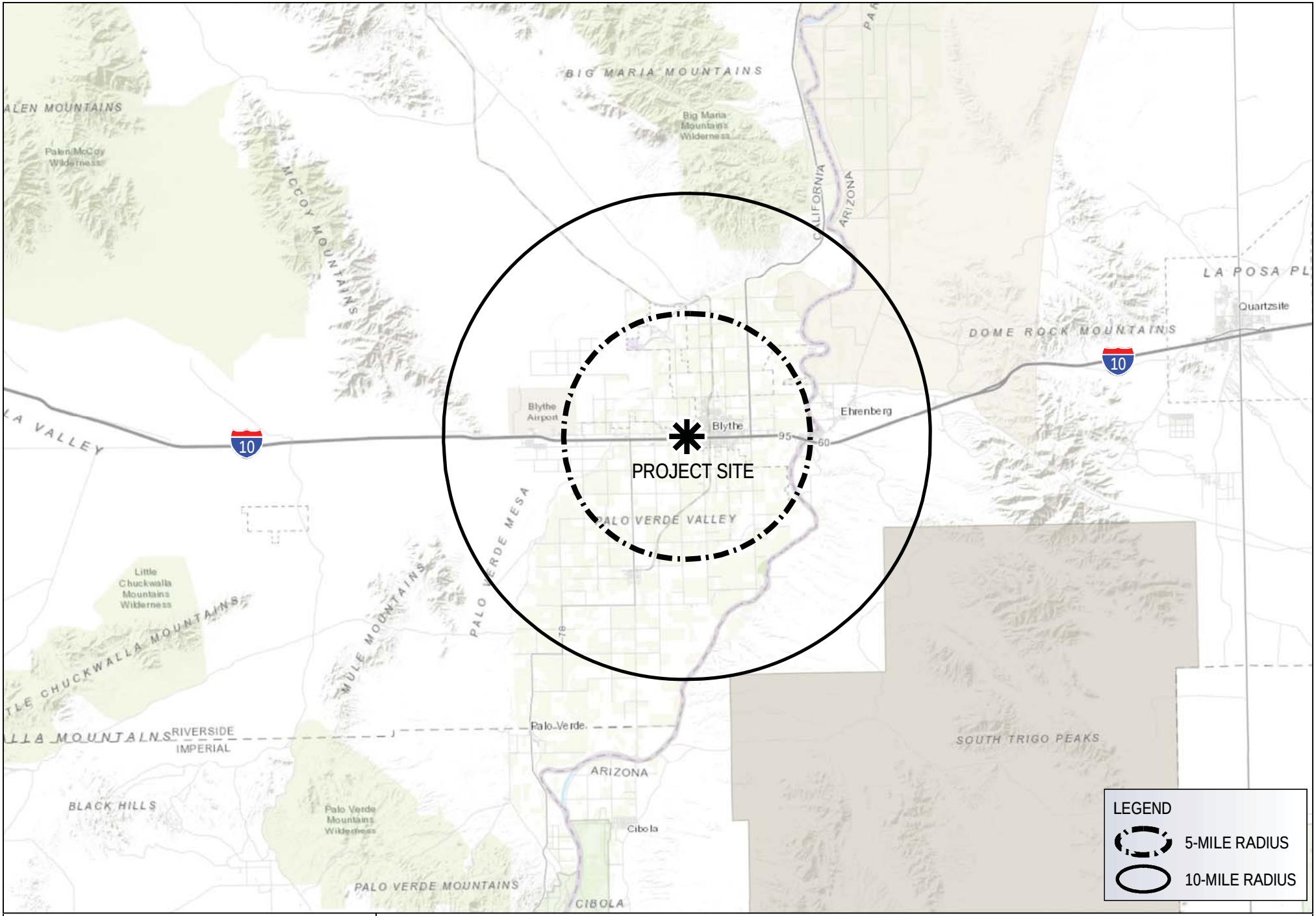
The USGS topographic map from 1970 and 1986 (Blythe, CA 7.5-minute Quadrangle) identifies two small structures at the northeast corner of the site, which have since been demolished. The USGS topographic map also indicates that the property elevation ranges from 271 to 274 feet above sea level. Other than the adjacent C Canal operated by PVID, no other topographic or geologic features are mapped on or near the property.

The Palo Verde Mesa Mountains are located approximately 6.45 miles northwest of the project; the Big Maria Mountains are located approximately 7 miles north of the project site; and McCoy Mountain is located approximately 8.30 miles west of the project site. Mountain ranges that are located further from the project area but contribute to the local landscape and scenic vistas include Mule Mountain, approximately 9.60 miles southwest of the project, Palo Verde Mountains, approximately 15.50 miles southwest of the project, Cunningham Mountain, approximately 11.50 miles east, and Trigo Mountains, approximately 14 miles south.

Existing Surrounding Character

The existing visual character of the City is both rural and urban. In Blythe, the rural visual character consists of the agricultural land uses within and surrounding the City of Blythe. Agricultural properties surround the urban areas of the City. The center of Blythe is characterized by an urban and suburban context, including residential neighborhoods, commercial shopping centers, office parks, public facilities, parks, and industrial uses. Buildings tend to be low-rise, which preserves views of the surrounding mountains from private and public lands. An interconnected street system provides accessibility throughout the City. Hobsonway is located north of the project and connects the City in

an east-west alignment. According to the City's General Plan, Hobsonway is considered a Major Arterial from DeFrain Boulevard to Intake Boulevard.



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EXISTING TOPOGRAPHIC FEATURES

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EXHIBIT 4.1-1

4.1.3 Regulatory Setting

State

Caltrans State Scenic Highways Program

Caltrans manages the State Scenic Highway Program, provides guidance, and assists local government agencies, community organizations and citizens with the process to officially designate scenic highways.

The California Scenic Highway Program was created in 1963 to protect and enhance the natural scenic beauty of California highways and adjacent corridors, through special conservation treatment. The Streets and Highways Code, Sections 260 to 263 governs the Scenic Highway Program by establishing and applying standards for, and undertaking the development of, official scenic highways. The department must take into consideration the concept of the "complete highway", which is a highway which incorporates not only safety, utility, and economy, but also beauty. In the development of official scenic highways, the department must give special attention both to the impact of the highway on the landscape and to the highway's visual appearance. Per Section 260, the designation of State scenic highways is intended:

> "to assign responsibility for the development of such scenic highways and for the establishment and application of specific planning and design standards and procedures appropriate thereto and to indicate, in broad statement terms, the location and extent of routes and areas requiring continuing and careful coordination of planning, design, construction, and regulation of land use and development, by State and local agencies as appropriate, to protect the social and economic values provided by the State's scenic resources."

According to the State Scenic Highway Program no scenic highways occur in or near Blythe.

Regional

Palo Verde Valley Area Plan

According to the Riverside County Palo Verde Valley Area Plan, the Big Maria, McCoy, and Mule mountains surrounding the Palo Verde Valley, in which Blythe and the project site are located, are rugged visual landmarks that accent the area's environment. They form a backdrop that helps create a natural boundary between the vegetation rich agricultural valley and the surrounding desert areas.

Local

Blythe 2025 General Plan

The Blythe 2025 General Plan (GP) addresses various elements relevant to the growth of the community including elements specifically relevant to the aesthetic and visual character of the City in the Community Design, Land Use, and the Open Space and Conservation Elements.

The Land Use Element constitutes the physical framework for the General Plan. The land use plan designates the general location, distribution, and extent of land uses. The Land Use Element ensures that conflicting uses are not located adjacent to each other, and outlines goals, policies, and programs within each land use category.

The purpose of the Community Design Element is to introduce policies aimed at protecting the natural resources of the City and enhancing its livability. The Element advances the notion of encouraging a hierarchy of mixed-use districts that can create a model of neighborliness and design of environments that discourage auto dependence and emphasize transit, pedestrian and bicycle movement.

The Open Space and Conservation Elements provide polices for open space lands and conservation natural resources within the General Plan planning area. The goal is to preserve and enhance the natural environment and ensure that long-term growth does not adversely affect environmental resources. The Open Space Element identifies areas that merit recognition or preservation because of their location, use, and/or natural, topographic or aesthetic features. The purpose of the Conservation Element is to assure the conservation, development and use of natural resources including water, deserts, soils, rivers, fisheries, wildlife, minerals, and other natural resources. According to the General Plan, Blythe's water corridors and other areas of unique topography should be conserved and preserved. Additionally, the existing views of the Mesa and Colorado River are considered valuable public views that should be maintained.

Blythe General Plan Final Program Environmental Impact Report

According to the Blythe General Plan Environmental Impact Report (GP EIR), the primary aesthetic and scenic resources in the City and surrounding region are the Colorado River and the mountains surrounding the City to the north, east, south, and west. Urban growth including new residential, commercial, and industrial developments would continue to alter the landscape in the City and transform the community from a semi-rural community to a more urbanized setting.

Additionally, new developments would result in new sources of light and glare. Sources of light would include streetlights, parking lot lights, and lights from buildings. Lighting is required to be arranged to reflect away from adjoining properties or any public way and arranged so as not to cause a nuisance either to highway traffic or to the living environment, per the Municipal Code (see below).

Blythe Municipal Code

The Blythe Municipal Code (MC) acts as a regulatory standard, compliant with State and federal laws, for the City of Blythe. The MC regulates businesses, zoning, animals, vehicles and traffic, peace and

morals, health and sanitation, and more. Regulations regarding design standards and guidelines are provided throughout the MC. Regulations include:

Chapter 17, *Zoning,* of the Blythe MC establishes design requirements and standards for properties within the various zones in the City. Design guidelines and standards in the Blythe MC limits building setbacks, building height, materials and height of fences and walls, lot and building dimensions.

Blythe MC Section 17.28.030, *Lighting of private property,* states lighting, "where provided to illuminate private property, shall be so arranged as to reflect away from adjoining property or any public way and to be arranged so as not to cause a nuisance either to highway traffic or to the living environment."

4.1.4 Project Impact Analysis

Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to aesthetics are significant environmental effects, the following questions are analyzed and evaluated. Would the Project:

a) Have a substantial adverse effect on a scenic vista?

b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a State scenic highway?

c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Threshold topic "b", involving State scenic highways, is not analyzed in detail since screening criterion related to aesthetics concluded that there would be no impacts.

Methodology

The analysis of the potential aesthetic impact of the proposed project is provided in the following discussion. Aesthetic impacts are evaluated by considering proposed grading, landform alteration, building setbacks, scale, massing, typical construction materials, and landscaping features associated with the design of the project. The project's impact on scenic vistas and the existing visual character are objectively examined to determine whether development of the project would have significant impacts on the property and surrounding area.

Project Impacts

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether impacts to aesthetic resources are significant environmental effects, the following thresholds are analyzed and evaluated. Would the Project:

a. Have a substantial adverse effect on a scenic vista?

Natural scenic vistas can be influenced both negatively and positively by man-made features. such as overhead power lines, landscaping and additional improvements. The evaluation of scenic vistas takes into consideration the physical compatibility of proposed projects in relation to land uses, transportation corridors, or other vantage points, where the enjoyment of unique vistas may exist, such as residential areas or scenic roads.

To avoid the negative impacts new development can potentially inflict on scenic vistas, the Blythe General Plan 2025 establishes policies and programs to reduce impacts on aesthetic resources. These include policies establishing a greenbelt, maintaining views to the mountains and mesa, pursuing sources of funding for landscape improvements along Interstate 10 and U.S. 95, requiring all utility installations to maximize visual harmony with the neighborhood, designing streets with a priority on neighborhood structure and pedestrian scale, and establishing planting programs that extend the sense of agricultural landscape at the western and eastern gateways of the City. Further, Chapter 17, Zoning, in the Blythe Municipal Code (MC) establishes standards and guidelines, such as limiting structure height and controlling building mass and scale, for various zones within the City. The Chapter 17 zoning standards implement appropriate standards and guidelines for land uses within the City General Plan.

The surrounding mountains contribute to the scenic vista observed in Blythe and near the project site. From the project property, the Big Maria Mountains to the north are distant and somewhat interrupted by existing infrastructure (i.e., utility poles), topography, and vegetation. McCoy Mountain is also distant and partially visible from the project property. Similar to the views of Big Maria Mountain, McCoy Mountain is largely obstructed by existing infrastructure, landscaping and structures. Mule Mountain, Cunningham Mountain, and Trigo Mountain are distant and largely obstructed by existing natural features, developed properties and landscaping, only making the peaks of these mountains visible at the project site.

Impacts to Adjacent Public Rights-of-Way

As stated previously, the proposed project is located south of Hobsonway and south of Interstate 10. According to the Blythe General Plan, scenic vistas are viewed from the roadways in the City and should be preserved. The following discussion analyzes the project’s impact on scenic vistas on the public rights-of-ways adjacent to the project property.

Hobsonway

From the segment of Hobsonway adjacent to the project site views of Big Maria Mountain are visible to the north, McCoy Mountain is partially visible to the west, Mule Mountain to the southwest is largely obstructed by existing vegetation and structures, Cunningham Mountain to the east is distant and partially obstructed by existing structures, infrastructure and landscaping, and Trigo Mountain is distant and partially interrupted by existing topography, structures and landscaping/vegetation to the south. The property is currently located an average of 5 feet below the grade of the existing roadway. **Exhibits 4.1-2** through **4.1-6** illustrates the views of the above mountains from the segment of Hobsonway, immediately north of the project[1]. Development of the project will not obstruct views of Big Maria, McCoy, Mule, and Cunningham Mountains. Development of the project will obstruct the distant views of Trigo Mountain to the south from the short adjacent segment of Hobsonway since the project site does not currently obstruct views to the south, however the view is largely obstructed by existing structures and landscape on other properties. However, the project proposes twelve buildings which will be 30 feet in height each, compliant with Section 17.10.040(B), *Building height*, of the Blythe Municipal Code. Additionally, the project will comply with the City setback standards established in Section 17.12.040 of the Municipal Code. Impacts will be less than significant.

[1] Images taken from Google Maps application. Location from the center of the northern and southern boundaries of the project site (i.e., Hobsonway and Interstate 10, respectively).



Source: Google Maps

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VIEW OF BIG MARIA MOUNTAINS (NORTH) FROM HOBSONWAY

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EXHIBIT 4.1-2



Source: Google Maps

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VIEW OF McCOY MOUNTAINS (WEST) FROM HOBSONWAY

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-3



Source: Google Maps

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VIEW OF MULE MOUNTAINS (SOUTHWEST) FROM HOBSONWAY

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EXHIBIT 4.1-4



Source: Google Maps

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VIEW OF TRIGO MOUNTAINS (SOUTH) FROM HOBSONWAY

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EXHIBIT 4.1-5



Source: Google Maps

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VIEW OF CUNNINGHAM MOUNTAINS (EAST) FROM HOBSONWAY

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-6

Interstate 10

From the segment of Interstate 10 adjacent to the project site, views of Big Maria Mountain to the north are largely unobstructed; McCoy Mountain to the west are obstructed by the existing vegetation located along the project's western boundary and on the property west of the project; views of Mule Mountain to the southwest are distant and obstructed by existing developments and landscaping; views of Cunningham Mountain to the east are distant and partially obstructed; and views of Trigo Mountain to the south are distant and largely obstructed by existing structures and landscape. **Exhibits 4.1-7** through **4.1-11** illustrates the views of the above mountains from the segment of Interstate-10, immediately south of the project[2].

Interstate 10 is approximately 8 feet above the grade of the existing project property. Development of the project will not obstruct views of McCoy, Mule, Cunningham, and Trigo Mountains since the project is located north of Interstate 10 (also referred to as "I-10"). Development of the proposed project will partially obstruct views of Big Maria Mountain when observed from I-10. However, the project proposes twelve buildings which will be 30 feet in height each, compliant with Section 17.10.040(B), Building height, of the Blythe Municipal Code. Additionally, the project will comply with the City setback standards established in Section 17.12.040 of the Municipal Code. The interruption of views north will be very brief for passing vehicles, and impacts will be less than significant.

[2] Images taken from Google Maps application. Location from the center of the northern and southern boundaries of the project site (i.e., Hobsonway and Interstate 10, respectively).



Source: Google Maps

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VIEW OF BIG MARIA MOUNTAINS (NORTH) FROM INTERSTATE 10

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-7



Source: Google Maps

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> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

VIEW OF McCOY MOUNTAINS (WEST) FROM INTERSTATE 10

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-8



Source: Google Maps

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VIEW OF McCOY AND MULE MOUNTAINS (WEST) FROM INTERSTATE 10

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-9



Source: Google Maps

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

VIEW OF TRIGO MOUNTAINS (SOUTH) FROM INTERSTATE 10

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-10



Source: Google Maps

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

VIEW OF CUNNINGHAM MOUNTAINS (EAST) FROM INTERSTATE 10
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.1-11

The project may obstruct the mountains to the north and south when viewed from public rights-of-way, however, this obstruction will be brief until the pedestrian or motorist travelling along these rights-of-way have passed the project site. Additionally, the project will comply with the City's building height and setback requirements established in the Municipal Code.

The proposed project will not further obstruct views of the mountain ranges west and east of the City when viewed from the adjacent roads. These mountains include McCoy Mountain, Mule Mountain, and Cunningham Mountain. These mountains will continue to visible when viewed from the public rights-of-way, Hobsonway and Interstate 10.

Impacts to Off-Site Properties

Properties surrounding the project primarily consist of agricultural land. Specifically, properties north of the project (separated by Hobsonway), immediately west of the project, and a property south of the project (separated by Interstate 10) operate as agricultural lands. The property west and south of the project contain a single family residential home. East of the project site includes C Canal, a vacant lot, and commercial buildings.

The proposed project would potentially result in partial obstruction of views from the existing properties north and south of the project. The base and midrange portion of Big Maria Mountain would be partially obstructed by the project when viewed from the south-lying property. The following discussion analyzes the project's impacts to scenic vista relative to the northern, eastern, western, and southern properties.

Northern Properties

Properties to the north include agricultural land separated from the project site by Hobsonway. From the northern properties, distant views of Big Maria Mountain are visible to the north, McCoy Mountain is partially visible to the west, and Cunningham Mountain is largely obstructed to the east. Development of the project would not result in impacts to these scenic vistas. Trigo Mountain is located south of the Palo Verde Valley and when viewed from the northern property, the base and midrange views of the Mountain is largely obstructed by existing developments, infrastructure, and landscaping. The project, which proposes twelve commercial buildings would further obstruct the views of Trigo Mountain. However, due to the distance of Trigo Mountain, as well as the fact that the Mountain is largely obstructed by existing structures and trees, development of the proposed project would result in less than significant impacts to the scenic vista.

Eastern Properties

Properties to the east of the project include vacant land and commercial buildings separated from the project site by C Canal. From the eastern properties, distant views of Big Maria Mountain are visible to the north, McCoy Mountain is partially visible to the northwest, and Cunningham Mountain is largely obstructed to the east, and Trigo Mountain is distant and largely obstructed to the south.

Development of the project would not result in impacts to the scenic vistas to the north, east, and south. McCoy Mountain is located to the west of the Palo Verde Valley and when viewed from the eastern property, the base view of the Mountain is largely obstructed by existing developments, infrastructure, and landscaping. However, midrange and peak views of the Mountain are largely unobstructed. The proposed twelve commercial buildings would partially obstruct the views of McCoy Mountain depending on the location of viewpoint on the eastern property. If standing in the southern portion facing toward the northwest to McCoy Mountain, it is likely that the buildings associated with the proposed project would partially obstruct the view of the Mountain. However, no development exists on the property immediately east of the site. Additionally, the eastern property is proposed to include commercial developments similar to those in proximity to the project and similar to those proposed for the project. Building height and setbacks will be compliant with the City Municipal Code, therefore, reducing impacts to the scenic vista resulting in less than significant impacts.

Southern Properties

Properties to the south includes agricultural land separated from the project site by Interstate 10 freeway. The agricultural property includes a single family residential dwelling in its northeast corner, likely associated with the agricultural lot. From the southern properties, distant views of Big Maria Mountain are visible to the north, McCoy Mountain is partially visible to the northwest, and Cunningham Mountain is largely obstructed to the east, and Trigo Mountain is distant and largely obstructed to the south. Development of the project would not result in impacts to the scenic vistas to the west, south, and east of the property to the south of the project site because the project site is located to the north. Big Maria Mountain is located at the north boundary of the Palo Verde Valley. When viewed from the southern property, the base views of Big Maria Mountain are largely obstructed by existing developments, topography infrastructure, and landscaping/vegetation. However, midrange and peak views of the Mountain are largely unobstructed. The project would partially obstruct the base views of Big Maria Mountain. However, the proposed project will be separated from the southern properties by Interstate 10 and will include setbacks from the rear property line. This separation reduces impacts of the proposed buildings from the southern property's view of Big Maria Mountain. Additionally, the project proposes a maximum building height of 30 feet, which complies with the City's Municipal Code (Section 17.10.040(B)). Moreover, the project site sits between 5 and 8 feet below the grade of Interstate 10 (south). Thus, when viewed from the southern property, Interstate 10 would partially obstruct the project since it sits above the proposed grade of the project. Therefore, the project, which proposes building heights of up to 30 feet, would be perceived to be between 22 and 25 feet in height when viewed from the southern properties. Therefore, impacts will be less than significant.

Western Properties

Properties to the west of the project include agricultural land with a single family residential structure. From the western property, distant views of Big Maria Mountain are visible to the north, McCoy Mountain is partially visible to the northwest, and Cunningham Mountain is largely obstructed to the east, and Trigo Mountain is distant and largely obstructed to the south. Development of the project would not result in impacts to the scenic vistas to the north, west, and south. Cunningham Mountain is located east of the Palo Verde Valley and when viewed from the western property, the base and midrange views of the Mountain is largely obstructed by existing developments, infrastructure, and landscaping. The existing vegetation along the western project boundary includes mature trees that obstruct the western property's views of Cunningham Mountain. Therefore, development of the project would not result in impacts to views of Cunningham Mountain. Additionally, the project proposes setbacks and building heights compliant with the City of Blythe's Municipal Code.

Project Design

The project will implement design features that will reduce the project's impact on the distant scenic vistas, including setbacks from the public rights-of-ways and building height limits. The building setbacks and height limits will reduce the massing of the buildings. It is likely that the mountains would be visible between the buildings and periodically obstructed by the proposed structures.

Blythe Municipal Code Section 17.12.040, *C-N, C-C, C-G, I-S, I-G, and P/Q-P setback requirements*, establishes setback requirements for non-residential zones. Section 17.12.040 requires a minimum setback of 10 feet from a building to the front of the property (adjacent to a street), and a minimum building setback of 5 feet from a building to the rear of the property (adjacent to a street). The frontage of the project is located adjacent to Hobsonway. The setback from Hobsonway to the project's building varies from approximately 165.3 feet to approximately 167. The rear of the project is located adjacent to Interstate 10. The building setback from Interstate 10 varies from 85.4 feet to 121.7 feet (building to property line). The proposed building setbacks are compliant with the zoning code established in the Blythe Municipal code. Additionally, the property is located between 5 and 8 feet below the grade of the two adjacent roadways.

In addition to building setbacks, the Municipal Code also establishes guidelines for building heights. Per Section 17.10.040(B), *Building height*, non-residential building heights are allowed to be a maximum of 34 feet in height. The project proposes a 30-foot building height, and is therefore, compliant with the Municipal Code.

Impacts will be less than significant.

b. Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway corridor?

There are no State or locally designated scenic highways in vicinity of the proposed project or in the regional vicinity of the City of Blythe.

According to the Riverside County Palo Verde Valley Area Plan and the Blythe General Plan Final Program EIR, Interstate 10 and U.S. Highway 95 provide scenic value to the area. Per the Riverside County Palo Verde Valley Area Plan, these roadways are not officially designated scenic highways, however, they have been nominated for County Scenic Highway status, and are therefore, titled Eligible County Scenic Highways. U.S. Highway 95 extends north from Interstate 10 to the San Bernardino County line. Highway 95 is located 2.50 miles east of the proposed project site. Therefore, the proposed project would not result in impacts to scenic resources viewed within the Eligible County Scenic Highway due to the distance of Highway 95 from the project property.

The segment of Interstate 10 from the City's western planning area boundary to the Colorado River is considered an Eligible County Scenic Highway. Interstate 10 is located along the property's southern boundary. As stated in discussion a. above, from the segment of Interstate 10 adjacent to the project site, views of Big Maria Mountain to the north are largely unobstructed. Therefore, development of the proposed project will partially obstruct views of Big Maria Mountain when observed from Interstate 10. The proposed twelve buildings will be 30 feet in height each, compliant with the Blythe Municipal Code. Additionally, the project will comply with the City setback standards established in the Municipal Code. The General Plan also includes implementing policies to maintain the views of the mountains from the City through design guidelines and standards related to setback, building height, color and materials, as well as landscaping along these corridors. As determined in discussion a., above, the project would not result in significant impacts to the surrounding scenic vistas when viewed from the adjacent roadways, and the project complies with the City's building height and setback standards. As a standard requirement, the project site plan and design will undergo review by the City to ensure impacts are less than significant. Therefore, impacts to image corridors or scenic resources would be less than significant.

c. In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from a publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

The project site is located at the border of non-urbanized and developed areas of Blythe. Properties west of the project consists primarily of agricultural uses. These areas are defined by large lots of row crops of different varieties. Properties east of the project are characterized by the start of urban development in the City of Blythe. Properties north and south of the project are defined by agricultural lands, however, these properties are located outside of the City of Blythe's jurisdiction. The project site, and properties west and east of the project are located within the City's General Commercial land use and zoning designation. The discussion of project impacts to visual character and scenic quality is provided below.

Visual Character

The project site is located south of Hobsonway, north of Interstate 10, and west of C Canal. The land uses that currently surround the project property consist primarily of agricultural lands to the north, separated by Hobsonway, to the west, and south, separated by Interstate 10. Hobsonway and Interstate 10 are both paved roadways that provide access through Blythe in an east-west trending fashion. East of the project property, and east of C Canal, indicates the start of urban development in the City of Blythe. The area east of the project is characterized by commercial buildings, which contribute to the urban context of the surrounding area.

Currently, the project site is characterized by an agricultural field, similar to the northern, western, and southern properties. Due to the project's relatively undeveloped character, the site does not obstruct public views of the surrounding scenic vistas, which includes the surrounding mountain ranges and the Colorado River. The Colorado River is located 4.30 miles east of the project, therefore, impacts to the River's scenic vistas would not be impacted by the project.

The mountain ranges that surround the City of Blythe includes the Big Maria Mountain to the north, McCoy Mountain to the west, Mule Mountain to the southwest, Trigo Mountain to the south, and Cunningham Mountain to the east. The public's views of these mountain ranges vary depending on the public viewshed location. Please refer to discussion a. for an in-depth analysis of the project site's current and future impact on public views. Since the views of the mountains are distant and largely obstructed by existing developments and landscaping, and the project proposes to comply with the City's Municipal Code regarding building design, setbacks, and building height, impacts to the public's view of scenic resources were determined to be less than significant.

General Commercial Zone

The project site, and areas west and east of the project site are located within the City of Blythe's General Commercial (C-G) land use and zoning designation. According to the Blythe General Plan 2025, C-G land use designations are intended to provide for development of community-scale commercial centers with market areas often extending beyond the City limits and immediate environs. Commercial lands along Hobosonway support neighborhood and tourist, as well as community-scale needs.

The project proposes a maximum building height of 30 feet, with one building (Building Number 1) to be 2 stories. Therefore, the project complies with the building heights established in the Municipal Code.

The Municipal Code establishes setback requirements for non-residential zones in the City, and requires a minimum setback of 10 feet from a building to the front or side of the property (adjacent to a street); a minimum setback of 0 feet from the side (adjacent to an alley or another lot); a minimum building setback of 5 feet from a building to the rear of the property (adjacent to a street);

and a minimum building setback of 0 feet from a building to the rear of the property (adjacent to an alley or another lot). This is indicated in the following table.

Table 4.1-1 Non-Residential Setback Requirements

Lot Line	Bounded By	Building Setback
Front	A street	10 feet
Side	A street	10 feet
Side	An alley or another lot	0 feet
Rear	A street	5 feet
Rear	An alley or another lot	0 feet

The frontage of the project is located adjacent to Hobsonway. The setback from Hobsonway to the project's building varies from approximately 165.3 feet to approximately 167. The rear of the project is located adjacent to Interstate 10. The building setback from Interstate 10 varies from 85.4 feet to 121.7 feet (building to property line). The proposed building setbacks are compliant with the zoning code established in the Blythe Municipal code. This is indicated in the table below.

Table 4.1-2 Project Setbacks

Lot Line	Bounded By	Proposed Project	Minimum Setback Requirements[1]
Front	A street (Hobsonway)	165.3 - 167 feet	10 feet
Side	A street	--[2]	10 feet
Side	An alley or another lot	64 - 104.3 feet	0 feet
Rear	A street (Interstate 10)	85.4 - 121.7 feet	5 feet
Rear	An alley or another lot	--	0 feet

Note: 1. Setback requirements established in Section 17.12.040 in the Blythe Municipal Code.
2. -- = Not applicable

As indicated in **Table 4.1-2**, the project does not propose setbacks less than those required by the Municipal Code. Therefore, the project is compliant with the building setback standards established by the City.

Lot size

The minimum lot area for General Commercial zones is 5,000 square feet; the minimum lot width is 50 feet, and the minimum depth is 100 feet. this is indicated in the table below.

Table 4.1-3 Lot Area, Width and Depth Requirements

Zone	Minimum Lot Area (SF)	Minimum Lot Width (ft)	Minimum Lot Depth (ft)
C-G	5,000 SF	50 ft	100 ft

The lot width is approximately 1,304 feet, and the lot depth is approximately 1,047 feet. Therefore, the project is compliant with the lot area, width and depth requirements for C-G zones established in the Municipal Code.

Municipal Code Chapter 17.22 establishes general guidelines for the planting and care of landscaping and irrigation in the City. The goals are to enhance the community's environmental and visual character for its citizens' use and enjoyment; establish a more healthy environment by using plants to mitigate pollution's ill effects; safeguard property values; protect public and private investments; and promote high-quality development. Section 17.22.040, Approval Requirements, requires that landscaping consist of an effective combination of trees, lawn/ground cover, shrubs and desert vegetation, as approved by the planning director. The project's landscaping plan proposes the use of trees, palms, shrubs, accents, and groundcovers. The plants proposed include Mulga, smoothie thornless cascalote, desert museum palo verde, Azt thornless mesquite, tipu tree, pink dawn chitalpa, date palm, brittle bush, resin spurge, thunder cloud Texas sage, senna, century plant, toothless desert spoon, desert flamenco red yucca, desert carpet bank catclaw, bush morning glory, trailing lantana, and turfgrass. The trees are proposed along the building frontages within the fenced boundaries of the project, in the parking areas on medians, and along the retention basins. The shrubs, accents, and groundcovers are proposed along the project frontages, building frontages and parking areas, as well as in the retention areas. Turfgrass is proposed in the retention basins to aid in the filtration of brackish water. The proposed landscape includes low water use and low maintenance plantings. The project's landscape complies with the requirements established in the Municipal Code. The landscape plan will be reviewed and approved by the City as a condition of project approval.

In addition to the project's compliance with Chapters 17.10, 17.12, and 17.22, the project will also be required to comply with the development and performance standards established in Title 17, Division III of the Municipal Code. These standards include guidelines for loading areas (Chapter 17.18), trash, storage and utility areas (Chapter 17.20), signs (Chapter 17.26), and lighting (Chapter 17.28). Review of the final building plans for the project will be required prior to commencement of construction.

Design Features

The proposed development will be cohesive and complementary to the adjacent land uses by incorporating improvements such as landscaping and fencing along the perimeter of the project. The project will include design guidelines for building materials, roof products, building massing and scale, and the perimeter security fence. The proposed project will include materials such as corrugated metal panels in neutral colors such as sandstone as the main exterior color, and brownstone for trim, patio, and door colors. The natural colors of the proposed buildings will complement the existing landscape and the proposed landscaping. **Exhibit 4.1-12** and **4.1-13** illustrate the building elevations of buildings 1 and 2. The proposed project will maintain visual consistency and scenic quality throughout the City.

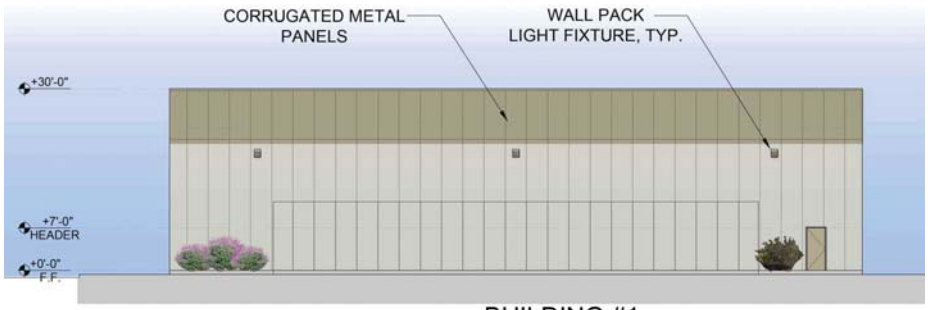
As discussed in detail above, the proposed project is consistent with the visual character and scenic quality of the area. The project's perimeter landscaping, fencing, and the entry points will be similar in appearance and quality to the existing commercial properties to the east. Impacts associated with visual character and scenic quality will be less than significant.



BUILDING #1
WEST ELEVATION



BUILDING #1
NORTH ELEVATION



BUILDING #1
SOUTH ELEVATION



BUILDING #1
EAST ELEVATION

NOT TO SCALE

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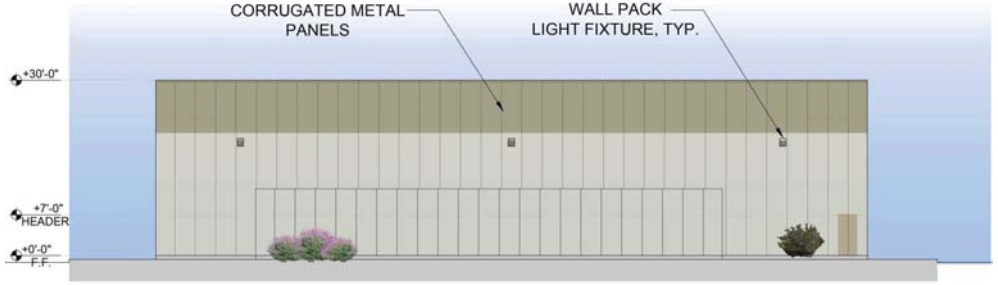
BUILDING 1 COLORED ELEVATIONS
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.1-12



BUILDING #2
WEST ELEVATION



BUILDING #2
NORTH ELEVATION



BUILDING #2
SOUTH ELEVATION



BUILDING #2
EAST ELEVATION

NOT TO SCALE

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BUILDING 2 COLORED ELEVATIONS

EDELWEISS SUSTAINABLE FARMS

EXHIBIT 4.1-13

d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

The project site does not currently have existing sources of lighting. Presently, existing sources of fixed nighttime lighting in the project vicinity can be attributed to the existing residential structure located west and south of the project, and the commercial areas east of the project. Lighting associated with residential buildings include low-intensity fixtures, typically wall-mounted, downward-oriented fixtures in the patio, side, and front yards of the homes. In the local vicinity, existing sources of low-intensity nighttime lighting can also be attributed to commercial structures located approximately 150 feet northeast of the project and 550 feet east of the project. Lighting from the existing commercial buildings is expected to have some source of nighttime lighting for both operational and security purposes. Additional lighting in industrial areas typically consists of overhead/downward-orienting lamp posts in parking areas, low-intensity, wall-mounted lighting fixtures at building entrances and lamp posts along pedestrian pathways.

Additionally, the agricultural properties surrounding the project property (to the north, south, and west) do not contribute to the area's existing ambient lighting, similar to the project site. Street lighting (i.e., light posts) do not occur on the adjacent roadways, Hobsonway to the north and Interstate 10 to the south. The closest signalized traffic intersection is located approximately 0.50 miles east of the subject site, at the Hobsonway and Lovekin Boulevard intersection. Day-time glare and night-time lighting can be attributed to vehicular traffic on these roadways.

Development of the project will therefore introduce additional light to the area. During the period of construction, the project is expected to utilize temporary light fixtures as a standard measure of nighttime construction site safety. These fixtures are typically installed on posts and/or on the sides of temporary construction trailers to illuminate stored equipment and building materials. These sources of light are generally downward-oriented and some are only activated by motion. The temporary construction perimeter fencing (with wind fabric) is expected to visually screen the temporary light fixtures, therefore preventing temporary light spillage effects. The temporary nature of proposed lighting will allow for adjustments to ensure that illumination is properly distributed without affecting adjoining areas.

For security purposes, the project will provide varied nighttime lighting to safely illuminate the parking areas, entrances, signs, and walkways. Lighting is required to be arranged to reflect away from adjoining properties or any public way and arranged so as not to cause a nuisance either to highway traffic or to the living environment in compliance with the lighting requirements in the City of Blythe Municipal Code.

In order to determine the impact of the proposed light fixtures at the project stie, a project-specific photometric plan was generated by West Coast Electric (**Appendix B**). Per the photometric plan, the

project will emit a maximum of 7.2 foot-candles along the property boundaries. The maximum foot-candles along the northern, western, southern, and eastern property boundaries are discussed below.

Per the photometric plan, the project will emit a maximum of 1.8 foot-candles along the northern property line. Along Hobsonway, the project will contribute a maximum of 5.8 foot-candles. This is anticipated at the main project entry point at the center of the northern boundary. The primary access point and emergency access points (at the northwestern and northeastern property corners) will include light fixtures to illuminate project entry point locations. This is typical of commercial properties. Along the western property boundary, the project will emit a maximum of 7.2 foot-candles. This maximum illumination will be located along the emergency access road. Along the southern property boundary, the project will emit a maximum of 1.1 foot-candles adjacent to the Interstate 10 freeway. Finally, along the eastern property boundary, the project will emit a maximum of 0.4 foot-candles.

According to the photometric plan, project light fixtures will consist of downward-oriented post-mounted and wall-mounted fixtures located throughout the project. The wall-mounted fixtures will provide lighting for building entry ways, sidewalks, and general exterior lighting. The post-mounted fixtures are proposed to be located in the parking lot areas and along the paved driveways. The downward-oriented fixtures are designed to not only provide light on the project site, but also to reduce the amount of light emitted towards adjacent properties. The light fixtures proposed at the project site will comply with the City of Blythe Municipal Code, which requires that lights to illuminate private property shall be arranged to reflect away from adjoining property or any public way. Additionally, light fixtures shall be arranged so as not to cause a nuisance either to highway traffic or to the living environment. The proposed project is compliant with the Municipal Code, and would have a less than significant impact.

Building materials such as corrugated metal panels are proposed to be utilized for the project exterior. The corrugated metal panels will be painted in neutral colors such as sandstone as the main exterior color, and brownstone for trim, patio, and door colors. The building color shall conform to a range of lighter tones to reduce heat gain and be compatible with the desert landscape, therefore, avoiding unnatural and bright building facades and preventing daytime glare. The proposed structures are expected to have natural and light finishes combined with earth-tones that do not have highly reflective properties or other conditions that would cause substantial daytime or nighttime glare. The proposed colors are non-reflective, and glare from project structures would be less than significant.

The use of solar panels is also proposed within the project. By nature, solar panels are designed to absorb as much of the solar spectrum as possible in order to convert sunlight to electricity. Glare from the solar panels will not be significant because they do not create a substantial amount of glint (a momentary flash or bright light) and glare (a reflection of bright light for a longer duration). Solar panels are constructed of dark-colored (blue or black) materials and are covered with anti-reflective

coatings, and are designed to absorb, rather than reflect, solar radiation. Therefore, impacts would be less than significant.

4.1.5 Cumulative Impacts

Cumulative impacts are those resulting from past, present, and reasonably foreseeable future actions, combined with the potential visual impacts of this project. Visual resources in Blythe at buildout of the General Plan were considered to determine the extent to which the project would impact the resources, consistent the CEQA Guideline 15130(b)(1)(B) approach of using a summary of planned growth projections in an adopted plan. General Plan and zoning policies and standards relating to aesthetic resources and lighting were also analyzed.

As determined in this analysis of project impacts to aesthetic resources, the project would not result in significant impacts to the existing views of scenic resources. The project's building heights and setbacks would be established to minimize impacts to scenic resources. Additionally, the project proposes commercial uses that are typical in the City of Blythe. Furthermore, the existing context of the surrounding area includes commercial properties east of the project.

Cumulative projects identified in **Table 4.0-1** and **Exhibit 4.0-1** of this Draft EIR include seven projects located throughout the City. Of the seven projects, six include cannabis developments primarily located within commercial land uses in the City. The cannabis projects propose commercial buildings varying from 2,450 square feet in size to 107,500 square feet. Buildings proposed for the cannabis projects would likely be similar in look to the proposed project. Finally, the cannabis projects are distributed throughout the City, primarily located north and south of Hobsonway on the western side of the City, and south of Interstate 10 on the eastern side of the City (see **Exhibit 4.0-1, *Cumulative Projects***). The remaining cumulative project proposes the development of a single family residential community located adjacent to an existing single family residential community. The single family residential project would develop 130 dwelling units that would be consistent in look to the existing residential community adjacent to it. Due to the distributed locations of the cumulative projects throughout the City of Blythe, sufficient viewpoints of the surrounding scenic vistas and visual resources remain within the City.

Therefore, cumulative impacts associated with this scenic resource will be less than significant, because its visibility will be preserved from other public and private vantage points within and surrounding the City. Cumulative visual impacts associated with the mountains, therefore, are expected to be less than significant.

Development of vacant areas throughout the City of Blythe will decrease the number of areas that provide largely unobstructed views of the scenic vistas viewed along public rights-of-ways. Typically, vacant lots, since they do not have buildings or associated structures, allow motorists and pedestrians to view the natural landscape without obstructions. Future development in the City would be

required to abide by the standards of the Municipal Code or future Specific Plans. Review of these projects for consistency with goals, policies and programs established in the General Plan will occur as projects are proposed. Two of the cumulative projects are proposed to be located on the properties west of the project. These are considerably smaller projects (less than 5 acres), but their individual buildings will be somewhat similar in size as the individual buildings for the proposed project. Additionally, since they propose operations similar to the project (commercial cannabis operations), they are also subject to CEQA review and site plan review by the City to they also comply with the Municipal Code. Build out of the cumulative projects are expected to have less than significant impacts on visual character due to the impositions of these regulations.

Cumulative impacts associated with light and glare will result from further development of vacant land as the City continues to build out. The same standards requiring limited lighting and directional and screened lighting included in the Municipal Code will be applied to future projects, as they are proposed. The implementation of these standards and requirements is designed specifically to minimize the impacts of light and glare on adjacent properties and throughout the City. Therefore, although lighting levels will increase as development occurs in the City, the cumulative impacts of light and glare are expected to be less than significant at General Plan build out.

4.1.6 Mitigation Measures

No significant impacts related aesthetics are identified, and therefore mitigation measures are not required.

4.1.7 Level of Significance after Mitigation

The proposed project would result in less than significant impacts to aesthetic resources, and no mitigation is required.

4.1.8 Resources

1. State Scenic Highways, Caltrans, website https://dot.ca.gov/programs/design/lap-landscape-architecture-and-community-livability/lap-liv-i-scenic-highways, accessed 2021.
2. Streets and Highways Code – SHC; Division 1. State Highways, Chapter 2. The State Highway System, Article 2.5 State Scenic Highways, California Legislative Information, https://leginfo.legislature.ca.gov/faces/codes_displayText.xhtml?lawCode=SHC&division=1.&title=&part=&chapter=2.&article=2.5., accessed 2021
3. Google Maps, Map data 2022, https://www.google.com/maps

4.2 Air Quality

4.2.1 Introduction

The purpose of this section is to discuss the existing air quality setting in the City of Blythe and Mojave Desert Air Basin and analyze the potential impacts resulting from implementation of the proposed project. The air quality principles, descriptions and supporting analysis rely on the relevant background research and information made available in various public regulatory and reference documents cited throughout this section. Reference documents include the Federal *Clean Air Act* (CAA); City of Blythe Code of Ordinances; Mojave Desert Air Quality Management District (MDAQMD) Rules and Regulations; MDAQMD CEQA and Federal Conformity Guidelines, February 2020; MDAQMD Attainment, Demonstration, and Maintenance Plans documentation; and the MDAQMD Cannabis Cultivation Forms and Procedures.

At the project-specific level, the analytical and quantitative findings are based on the Edelweiss Sustainable Farms Air Quality Impact Analysis (AQIA), prepared for the project by Urban Crossroads on April 29, 2022. The purpose of the AQIA was to evaluate the potential impacts to air quality associated with construction and operation of the proposed project, and in doing so, identify any necessary mitigation measures for complying with the thresholds established by MDAQMD. The AQIA relied on the most current version of the California Emissions Estimator Model™ (CalEEMod) Version 2020.4.0, which serves as an adopted platform to quantify construction emissions and operational emissions from land development projects. The software is designed to calculate criteria pollutants and greenhouse gas emissions using widely accepted methodologies from project-specific and accepted default data inputs. Sources of these methodologies and default data include, but are not limited to, the United States Environmental Protection Agency (USEPA) AP-42 emission factors, California Air Resources Board (CARB) vehicle emission models, studies commissioned by California agencies such as the California Energy Commission (CEC) and CalRecycle. The AQIA documentation referenced herein is provided in the Appendices of this Draft EIR (**Appendix C**).

4.2.2 Existing Conditions

Regional Air Basin Conditions

The project site is located in the City of Blythe and Palo Verde Valley region, which is a Riverside County portion of the Mojave Desert Air Basin (MDAB), under jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). The MDAB covers a large extent of land and is described as an assemblage of mountain ranges interspersed with long broad valleys. Many of the lower mountains within the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to

coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the MDAB. The MDAB is separated from the Southern California coastal and Central California valley regions by mountains (highest elevation is approximately 10,000 feet), whose passes form the main channels for these air masses. The Palo Verde Valley region, where the project is located, lies in the low desert, at the eastern end of a series of valleys.

During the summer, the MDAB is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified as dry-very hot desert, to indicate that at least three months have maximum average temperatures over 100.4° F. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific collide with rising heated air from desert areas, resulting in brief, high-intensity thunderstorms that can cause high winds and localized flash flooding.

Local Conditions

The project site conditions are primarily defined by agricultural uses and associated activities recently consisting of row crop cultivation on a level ground. Historically, the site has been subject to reoccurring ground disturbance as a function of the agricultural operations, including surface (furrow) irrigation system maintenance, soil management, crop harvesting, and off-road equipment circulation. In addition, PVID conducts routine maintenance operations and use of the existing dirt roads on the adjoining irrigation channels. The project site is absent of any permanent buildings or other occupied facilities.

Land to the north includes the east-west alignment of Hobsonway (formerly Highway 60) followed by cultivated farmland. Land to the east includes a primary irrigation channel (C Canal) operated by Palo Verde Irrigation District (PVID), followed by vacant land. Land to the south includes Interstate 10 Freeway, followed by farmland. Land to the west includes agricultural uses with at least one residential structure.

4.2.3 Regulatory Setting

Federal

Clean Air Act

The Federal Clean Air Act (CAA) is the law that defines EPA's responsibilities for protecting and improving the nation's air quality. It was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards (National Ambient Air Quality Standards (NAAQS)) for managing criteria air pollutants: O_3, CO, NO_x, SO_2, PM_{10}, $PM_{2.5}$, and lead, and specifies future dates for achieving compliance. The CAA also mandates the preparation, approval, and enactment of State Implementation Plans (SIPs) for local areas not meeting these standards. SIPs are a compilation of documents with analysis and pollution control measures that demonstrate how the standards will be met. The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most relevant to the proposed development include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants: O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

State

California Clean Air Act

The California Clean Air Act (CCAA) became effective on January 1, 1989, and mandated health-based air quality standards at the state level and delineated responsibilities and authority of the California Air Resources Board (CARB) and Air Quality Management Districts (AQMDs). CARB is responsible for enforcing state standards, which is achieved through State Implementation Plans (SIP), prepared to assist regional air quality management districts in meeting the federal and state ambient air quality standards in accordance with the deadlines specified in the Federal Clean Air Act (CAA) and emission reduction targets of the California Clean Air Act.

Regional and Local

Mojave Desert Air Quality Management District

Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over the desert portion of San Bernardino County and the easternmost portion of Riverside County, including the Palo Verde Valley and City of Blythe. The Palo Verde Valley portion of eastern Riverside County was annexed by the

MDAQMD from the South Coast Air Quality Management District (SCAQMD) effective July 1, 1994, pursuant to provisions of H&SC 41210(c) and MDAQMD Resolution 94-03. Geographically, the Palo Verde Valley region occupies the southeast corner of the MDAQMD jurisdiction with the greatest separation from the populated regions located to the west. As the air pollution control agency, MDAQMD has primary responsibility for regulating stationary sources of air pollution located within its jurisdictional boundaries, including the Mojave Desert Air Basin (MDAB). MDAQMD also implements air quality programs required by state and federal mandates, enforces rules and regulations based on air pollution laws and educates businesses and residents about their role in protecting air quality and the risks of air pollution. MDAQMD has prepared the *CEQA and Federal Conformity Guidelines* (February 2020) to support environmental analysis or review documents within its jurisdiction by providing background information and guidance on the analysis approach. These guidelines establish the emissions-based significant thresholds against which the project's short-term construction and long-term operation emission levels will be compared. The MDAQMD jurisdiction is also subject to the *Rules and Regulations of the Mojave Desert Air Quality Management District* (MDAQMD Rule Book), which includes the general provisions, permits, fees, prohibitions, and other requirements that must be undertaken by permit applicants for achieving compliance and project authorization.

Existing air quality is measured at six established MDAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. They are represented by as the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). The criteria air pollutants that are most relevant to current air quality planning and regulation in the MDAB include ozone (O3), carbon monoxide (CO), nitrogen dioxide (NO2), respirable particulate matter (PM10), fine particulate matter (PM2.5), sulfur dioxide (SO2), and lead (Pb), as described below:

Carbon Monoxide (CO) is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections. CO emissions are attributed to sources that burn fuel, such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating. Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure.

Sulfur Dioxide (SO_2) is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO2 oxidizes in the atmosphere, it forms SO4. Collectively, these pollutants are referred to as sulfur oxides (SOX). A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO2. In contrast, healthy individuals

do not exhibit similar acute responses even after exposure to higher concentrations of SO2.

Nitrogen Oxide (NO_X) includes Nitric oxide (NO) and Nitrogen dioxide (NO_2), which are the primary oxides of nitrogen, and combined are known as nitrogen oxides. These oxides are produced at high temperatures during combustion as byproducts of motor vehicles, power plants, and off-road equipment. NOx contributes to the formation of ozone serving as the primary receptor of ultraviolet light and initiating the photochemical reaction. Short-term exposure to nitrogen dioxide can result in airway constriction and diminished lung capacity and is highly toxic by inhalation. Populations living near roadways are more likely to experience the effects of nitrogen oxides due to elevated exposure to motor vehicle exhaust.

Ozone (O_3) is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant. Exposure to ozone can result in diminished breathing capacity, increased sensitivity to infections, and inflammation of the lung tissue. Children and people with pre-existing lung disease are most susceptible to the effects of ozone.

Particulate Matter (PM_{10} and $PM_{2.5}$) consists of fine suspended particles of ten microns or smaller in diameter, and are the byproducts of road dust, sand, diesel soot, windstorms, and the abrasion of tires and brakes. $PM_{2.5}$ are particles which are 2.5 microns or smaller (which is often referred to as fine particles). The elderly, children, and adults with pre-existing respiratory or cardiovascular disease are most susceptible to the effects of PM. Elevated PM10 and PM2.5 levels are also associated with an increase in mortality rates, respiratory infections, occurrences and severity of asthma attacks, and hospital admissions.

Volatile Organic Compounds (VOC) are also known as Reactive Organic Gas (ROG). This class of pollutants has no state or federal ambient air quality standards and is not classified as criteria pollutants; however, they are regulated because they are responsible for contributing to the formation of ozone. They also contribute to higher PM10 levels because they transform into organic aerosols when released into the atmosphere. Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several. VOCs pose a health threat when people are exposed to high concentrations. Benzene, for example, is a hydrogen component of VOC emissions known to be a carcinogen.

Lead (Pb) occurs in the atmosphere as particulate matter resulting from the manufacturing of batteries, paint, ink, and ammunition. Exposure to lead can result in anemia, kidney disease, gastrointestinal dysfunction, and neuromuscular and neurological disorders. Babies in utero, infants, and children are especially susceptible to health risks associated with exposure to lead by impacting the central nervous system and causing learning disorders.

Criteria Air Pollutant Designations

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O3, CO (except 8-hour Lake Tahoe), SO2 (1 and 24 hour), NO2, PM10, and PM2.5 are not to be exceeded. Attainment status for a pollutant means that the Air District meets the standards set by the United State EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards and must therefore develop measures toward compliance in the form of a State Implementation Plan (SIP)

Air quality in the MDAB has a nonattainment designation for ozone (O_3) and respirable particulate matter (PM10), as summarized in **Table 4.2-1**.

Table 4.2-1 Attainment Status of Criteria Pollutants in the MDAB

Criteria Pollutant	State Designation	Federal Designation
Ozone (O3) –1-Hour Standard	Nonattainment	N/A – Revoked Standard
Ozone (O3) – 8-Hour Standard	Nonattainment	Nonattainment
Respirable Particulate Matter (PM10)	Nonattainment	Nonattainment
Fine Particulate Matter (PM2.5)	Attainment	Unclassified/ Attainment
Carbon Monoxide (CO)	Attainment	Unclassified/ Attainment
Nitrogen Dioxide (NO2)	Attainment	Unclassified/ Attainment
Sulfur Dioxide (SO2)	Unclassified/ Attainment	Unclassified/ Attainment
Lead (Pb)	Attainment	Unclassified/ Attainment

Ozone

Based on the *US EPA Nonattainment Areas for Criteria Pollutants* (EPA Green Book) and California Air Resources Board (CARB) map documentation, western portions of MDAQMD and San Bernardino County have a non-attainment designation for ozone (8-hour standard). The nonattainment portions of MDAQMD are considered to be downwind of the Los Angeles basin, and to a lesser extent, downwind of the San Joaquin Valley. Prevailing winds are known to transport ozone and ozone precursors from both regions into and through the MDAB during the summer ozone season. These transport couplings have been officially recognized by CARB, such that local MDAQMD emissions alone would be considered in attainment but are exceedance of both the NAAQS and CAAQS for ozone due to the influence of this transported air pollution from upwind regions. The current attainment efforts have determined that the MDAQMD set of rules and regulations represents all feasible control measures for MDAQMD sources and that MDAQMD has put in place Reasonably Available Control Technology (RACT) requirements for all applicable sources (including gasoline dispensing vapor control), as well as a New Source Review program with a 25 ton per year major source level and a 1.3:1 offset ratio requirement. Therefore, the attainment effort and demonstrations have not resulted in additional control measures within MDAB,

but reasonably rely on reductions occurring in upwind regions, which contribute to the exceedance. The MDAQMD will experience additional future emission reductions resulting from existing and proposed Federal and State control measures affecting mobile and area sources. Moreover, it is worth noting that the Palo Verde Valley region, where the project is located, occupies the easternmost portion of the MDAQMD jurisdiction, which translates to the greatest separation from the upwind ozone sources that are known to affect the western portions of MDAB.

Particulate Matter (PM_{10})

Based on the *US EPA Nonattainment Areas for Criteria Pollutants* (EPA Green Book) and California Air Resources Board (CARB) map documentation, western portions of MDAQMD and San Bernardino County have a non-attainment designation for PM10 (particulate matter with an aerodynamic diameter of 10 microns or less). General sources of PM include combustion emissions from trucks and passenger cars, off-road equipment, industrial processes, residential wood burning, and forest and agricultural burning; fugitive dust from paved and unpaved roads, construction, mining and agricultural activities; and ammonia from sources such as livestock operations, fertilizer application, and motor vehicles. In general, combustion processes form fine particles, whereas emissions from dust sources tend to be predominantly coarse particles. In MDAQMD's jurisdiction, the most notable sources of PM tend to be primarily fugitive dust, which is generated from both local sources and by regionwide dust during moderate to high wind episodes. These regional episodes tend to be multi-district and sometimes interstate in scope. The MDAQMD has identified the local source of fugitive dust to be primarily unpaved road travel, construction and local disturbed areas of soil concentrating in the urban populated areas within the district.

In response to this condition, MDAQMD currently has three rules that specifically address PM10 emissions, with an emphasis on fugitive dust: Rule 401 (Visible Emissions); Rule 402 (Nuisance); and Rule 403 (Fugitive Dust). Rule 401 prohibits the discharge of any observable emission source or air contaminant for a period or periods aggregating more than three minutes in any one hour. Rule 402 prohibits the discharge of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property. Rule 403 is designed to reduce the amount of PM10 entrained in the ambient air from anthropogenic fugitive dust sources within MDAQMD by requiring actions to prevent, reduce, or mitigate fugitive dust.

MDAQMD Odor Control Requirements

MDAQMD's rule compliance and permit process regulates various aspects of commercial cannabis cultivation activities, including the necessary control devices required as part of a Cannabis Odor Compliance Plan to prevent any discharge of air contaminants capable of causing nuisance or annoyance to persons or to the public, and to prevent detectable cannabis odor at the facility property line. The

analysis provided on the topic of odors addresses the project's compliance with MDAQMD requirements including preparation and implementation of an odor control plan.

City of Blythe Code of Ordinances

Chapter 8.32 (Airborne Particles)

The maintenance of any real or personal property, whether improved or unimproved, in such a manner that dust, sand, soil or any other foreign material is caused to be blown or otherwise placed into the air or atmosphere, or spread or drift upon property or premises of the city or any other person, firm or corporation, in such a manner as to cause perceptible injury to property, or to so pollute the air or atmosphere as to sensibly impair enjoyment thereof, or to be a detriment to the public health or safety or the property of such others shall constitute a nuisance.

Chapter 17.28 (Hazards – Noise – Light and Glare – Air Pollution)

No use shall be established which causes or emits any dust, gas, smoke, fumes, odors, noise or vibrations which are or may be detrimental to other properties in the neighborhood or to the occupants thereof.

Chapter 5.10 (Commercial Cannabis Activity)

Section 5.10 (L) (Odor Control) in the City's Code of Ordinances requires that odor control devices and measures be implemented with commercial cannabis businesses to ensure that that odors from cannabis are not detectable off-site. Commercial cannabis facilities are required to provide a sufficient odor absorbing ventilation and exhaust system so that odor generated inside the commercial cannabis business that is distinctive to its operation is not detected outside of the facility, anywhere on adjacent property or public rights-of-way, on or about the exterior or interior common area walkways, hallways, breezeways, foyers, lobby areas, or any other areas available for use by common tenants or the visiting public, or within any other unit located inside the same building as the commercial cannabis business. The analysis provided on the topic of odors addresses the project's compliance with the requirements through an odor control plan.

4.2.4 Project Impact Analysis

Thresholds of Significance

The following thresholds or criteria are derived from Appendix G of the CEQA Guidelines and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064 of the CEQA Guidelines. For analysis purposes, buildout of the Edelweiss Sustainable Farm project would have a significant effect on air quality emissions if it is determined that the project will:

a. Conflict with or obstruct implementation of the applicable air quality plan?
b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?
c. Expose sensitive receptors to substantial pollutant concentrations?
d. Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Methodology

The MDAQMD CEQA and Federal Conformity Guidelines (February 2020) provide the emissions-based thresholds for criteria air pollutants to determine significance. This analysis relies on the findings of the *Edelweiss Sustainable Farms Air Quality Impact Analysis* (AQIA), completed by Urban Crossroads on April 29, 2022. The purpose of this study was to evaluate the potential impacts to air quality associated with construction and operation of the proposed project. The project parameters that served as input to the model consisted of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. As a conservative approach, the AQIA assumed that the project will operate 24-hours for seven days per week. The quantitative emissions methodology used the most current version of the California Emissions Estimator Model™ (CalEEMod) Version 2020.4.0.

The MDAQMD emissions-based thresholds are summarized in **Table 4.2-2**.

Table 4.2-2 MDAQMD Air Quality Significance Thresholds (Pounds/Day)

Criteria Pollutant	Daily Threshold (lbs/day)
CO	548 lbs/day
VOC	137 lbs/day
NO_x	137 lbs/day
SO_x	137 lbs/day
PM_{10}	82 lbs/day
$PM_{2.5}$	65 lbs/day

Project Impacts

a. Conflict with or obstruct implementation of the applicable air quality plan?

The combined policies and strategies found in the MDAQMD Rules & Regulations and the various air pollutant attainment plans collectively function as an air quality plan for the jurisdiction. MDAQMD is said to have complied with the procedures established by statutes in federal and state codes when developing its regulations. MDAQMD has also determined that its rules and regulations represent all feasible control measures toward attainment for MDAQMD sources. Attainment efforts reasonably rely on reductions occurring in upwind jurisdictions, which are known to influence the attainment status in MDAQMD. Moreover, MDAQMD is expected to benefit from additional future emission reductions

resulting from existing and proposed Federal and State control measures affecting mobile and area sources.

The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance with the indicators discussed below.

Consistency Criterion 1

Local land use plans and/or population projections: The City of Blythe General Plan designates the project site for General Commercial uses. The proposed project is consistent with the allowable uses and associated development standards set forth in the General Plan land use designation for the project site. Therefore, the project would conform to the local land use plans. Since the proposed development would not involve housing facilities, the project would not result in direct changes to the population and associated projections.

Consistency Criterion 2

All MDAQMD Rules and Regulations: The project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visible Emissions), 402 (Nuisance), and 403 (Fugitive Dust) and the associated permitting for permission to construct and operate equipment. The project would also be required to comply with Rule 1113 (Architectural Coatings), the purpose of which is to limit Volatile Organic Compounds (VOC) in architectural coatings.

Consistency Criterion 3

Demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards: As substantiated in **Tables 4.2-4** and **4.2-5** herein, project construction and operational-source emissions would not exceed applicable MDAQMD emissions-based significance thresholds. As such, the project would not have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality for on-going project operations. The project would conform to local land use plans, comply with all applicable MDAQMD Rules and Regulations, and would not exceed the applicable regional thresholds. Therefore, the Project would be considered to have a less than significant impact and is consistent with the AQMP.

b. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?

The Edelweiss Sustainable Farms AQIA methodology for calculating project-related construction-source (short-term) and operational-source (long-term) emissions relied on CalEEMod (Version 2020.4.0)

software based on the project parameters, consisting of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. As a conservative approach, the AQIA assumed that the project will operate 24-hours for seven days per week. In accordance with the MDAQMD CEQA and Federal Conformity Guidelines, the quantitative results were compared against the emissions-based significance thresholds included therein. The methodology and results of this analysis are summarized below.

Construction Emissions: Construction activities associated with the project are expected to result in short-term emissions of VOCs, NOX, CO, SOX, PM10, and PM2.5 related to temporary site preparation, grading, building construction, paving, and architectural coating, and construction worker commuting.

Fugitive dust is one of the primary considerations associated with site preparation and grading activities due to the necessary earthwork. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). However, as a requirement of MDAQMD Rule 403 (Fugitive Dust Control), prior to commencing earth-moving activity, the project proponent must prepare and submit a dust control plan that describes all applicable dust control measures, including compliant signage, perimeter fencing, soil stabilization by watering, and the use of a soil binder application (as applicable). The plan must demonstrate meeting the Rule 403 standards, including preventing suspended visible fugitive dust from any transport, handling, construction or storage activity, except during high winds. Moreover, the permit holders must take every reasonable precaution to minimize fugitive dust from excavation, grading, or clearing of land. Although the factor of Rule 403 compliance is a requirement, the dust control plan will be required as **Mitigation Measure AQ-1** to ensure that dust control generated from the project site during construction is less than significant. The AQIA relied on CalEEMod utilized to calculate fugitive dust emissions resulting from this phase of activity with the understanding that the site earthwork would be balanced (no soil import or export).

Construction Duration: For purposes of calculating project emissions, the AQIA modeling took into account a tentative construction schedule commencing in early 2022 and lasting through August 2023 as being representative of a "worst-case" analysis scenario. The AQIA determined that if construction activities occurred after the initially assumed start date, the modeling would remain valid and emission factors would be expected to decrease due to emission regulations becoming more stringent. Therefore, the construction durations displayed in **Table 4.2-3** primarily serve as factors for modeling and emissions analysis, rather than fixed dates for actual construction, which will occur at a subsequent date. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines.

Table 4.2-3 Construction Duration
(For Air Quality Modeling and Analysis Purposes)

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2022	01/14/2022	10
Grading	01/29/2022	03/04/2022	35
Building Construction	3/05/2022	08/04/2023	370
Paving	03/01/2023	08/04/2023	113
Architectural Coating	03/01/2023	08/04/2023	113

Construction Equipment: The AQIA relied on default construction equipment factors determined by CalEEMod based on the project land use, size, and duration. This included multiple crawler tractors, rubber-tired dozers, excavators, graders, scrapers, cranes, forklifts, generator sets, welders, pavers, paving equipment, rollers, and air compressors operating in 8-hour shifts and in variable capacities based on the phase of construction.

Table 4.2-4 Overall Construction Emissions Summary (Without Mitigation)

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2022	8.09	66.69	70.16	0.18	24.17	12.48
2023	119.20	38.91	60.63	0.15	10.20	4.01
Winter						
2022	7.97	67.13	66.09	0.17	24.17	12.48
2023	119.07	39.31	56.22	0.14	10.20	4.01
Maximum Daily Emissions	**119.20**	**67.13**	**70.16**	**0.18**	**24.17**	**12.48**
SCAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized on **4.2-4.** Under the assumed scenarios, emissions resulting from the project construction would not exceed criteria pollutant thresholds established by the MDAQMD.

Operational Emissions

Operational activities associated with the proposed project will result in emissions of VOCs, NOX, SOX, CO, PM10, and PM2.5 from Area Sources, Energy Sources, and Mobile Sources.

Area Source Emissions

Area source emissions include the following types of products and activities.

Architectural Coatings: Over a period of time the buildings that are part of this project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

Consumer Products: Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

Landscape Maintenance Equipment: Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

Energy Source Emissions

Combustion Emissions Associated with Natural Gas and Electricity: Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the MDAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Because natural gas is not available at the project site and will not be used, these emissions were excluded.

Mobile Source Emissions

The project related operational air quality emissions derive primarily from vehicle trips generated by the project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the Edelweiss Sustainable Farms Traffic Study were utilized in this analysis. The project is expected to generate a total of approximately 2,279 two-way vehicular trips per day. To determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose. Additionally, CalEEMod defaults were utilized for the vehicle fleet mix for the project.

The project proposes the use of emergency back-up generators to support each building. In an emergency situation, the back-up generators would supply approximately 30 percent of the demand load to maintain the necessary climate control. Generators typically include internal combustion engines (ICEs) greater than 50 horsepower (hp), which cannot be operated within the MDAQMD jurisdiction

without adequate registration through the California Air Resources Board (CARB) Portable Equipment Registration Program (PERP) or through an MDAQMD Permit to Operate. It is worth noting that the registration or permitting of portable emergency generators is attributed to the equipment itself, rather than to a land use project. Equipment must be registered or permitted in order to be rented, purchased, or leased for utilization. Under CARB PERP and MDAQMP Permit methods of compliance, equipment must meet the emission limits for oxides of nitrogen (NOx), carbon monoxide (CO), and volatile organic compounds (VOC), as well as other operating requirements. Equipment must also comply with MDAQMD Rule 1160 (Internal Combustion Engines). Therefore, the use of emergency back-up generators will not be a routine operation and the associated emissions are accounted for in the PERP registration or MDAQMD permit process that run with the actual equipment and that must be met before the equipment is acquired for site use.

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

As shown on **Table 4.2-5**, the project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of any criteria pollutant.

Table 4.2-5 Summary of Peak Operational Emissions

Source	Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Summer						
Area Source	15.12	5.10E-04	0.06	0.00	2.00E-04	2.00E-04
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	7.69	10.59	78.81	0.18	18.09	4.92
Project Daily Emissions	**22.81**	**10.59**	**78.87**	**0.18**	**18.09**	**4.92**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Area Source	15.12	5.10E-04	0.06	0.00	2.00E-04	2.00E-04
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	6.59	11.22	69.25	0.17	18.09	4.92
Project Daily Emissions	**21.71**	**11.22**	**69.30**	**0.17**	**18.10**	**4.92**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

As shown in **Tables 4.2-4** and **4.2-5**, the project will not exceed criteria pollutant emissions thresholds as a result of construction and operation of the proposed project. The air quality standards and regulatory framework stem from the Clean Air Act, which identified the primary standards to provide public health protection, including protecting the health of "sensitive" populations such as asthmatics, children, and the elderly. Ambient air quality standards, their attainment and maintenance were based on criteria to

protect public health. Secondary standards provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Given that the project's emission levels during construction and operation will be below the established MDAQMD thresholds, the project will attain consistency with the objective of protecting public health and welfare. Moreover, this consistency with the emission thresholds will also prevent any cumulatively considerable net increases of ozone, ozone precursors, and particulate matter, for which attainment is being pursued under the existing MDAQMD rules and regulations. Less than significant impacts are anticipated.

c. Expose sensitive receptors to substantial pollutant concentrations

A sensitive receptor is a person or group in the population considered particularly susceptible (i.e., more susceptible than the population at large) to health effects due to exposure to an air contaminant. Under the MDAQMD CEQA and Federal Conformity Guidelines, residences, schools, daycare centers, playgrounds and medical facilities are considered sensitive receptor land uses. The proposed project occurs in a General Commercial land use designation with a history of row crop cultivation. Surrounding areas are primarily a combination of cultivation fields, vacant land and public roads. The adjoining property to the west primarily includes agricultural uses and one residential structure within a General Commercial land use designation. As per the MDAQMD's Guidelines, the following project types located within a specified distance to an existing or planned sensitive receptor land use must be evaluated to determine exposure of substantial pollutant concentrations to sensitive receptors:

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

Based on the AQIA analysis, the proposed cannabis cultivation and processing facility does not quality as one of these project types defined by MDAQMD and does not exceed the applicable short-term construction or long-term operation regional emission thresholds.

Furthermore, the MDAQMD cannabis cultivation permit process requires a location analysis to identify the closest residence, business, and K-12 school. The closest residence is the existing single-family structure located on the adjoining General Commercial parcel to the west, separated from the project limits by a distance of less than 50 feet. The nearest business is the existing commercial building located approximately 240 feet to the northeast, being east of C Canal and north of Hobsonway. The nearest K-12 school to the project is Twin Palms Continuation High School, located approximately 3,600 feet to the northeast. According to the MDAQMD permit process, if the proposed equipment operates within 1,000 feet of a school site and operation would result in the emission of hazardous air pollutants, a public notice is required at the expense of the applicant. Considering that the project site is not located within the threshold distance for K-12 schools, further analysis and notification process is not required.

Therefore, given that the short-term construction or long-term operation emissions will not exceed the MDAQMD Significant Emission Thresholds for criteria pollutants, less than significant impacts are expected pertaining to the exposure of sensitive receptors to substantial pollutant concentrations.

d. Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?

This type of project has the potential to generate potential temporary and intermittent odors associated with construction equipment exhaust and the application of asphalt and architectural coatings. Odors resulting from activities, such as asphalt installation, would be detectable in localized active areas and quickly dispersed as distance from the construction site increases.

As an operation, the proposed project will not include the types of facilities or land uses commonly known to generate odors, such as agricultural activities (livestock and farming), feedlots, wastewater treatment plants, sanitary landfills, composting/green waste facilities, recycling facilities, petroleum refineries, chemical manufacturing plants, painting/coating operations, rendering plants, or food packaging facilities. However, the project will include indoor cannabis cultivation and processing activities, which are commonly known to generate odor emissions and are therefore regulated via required controls at the City and City and Air District (MDAQMD) level.

Chapter 5.10 (L) (Commercial Cannabis Activity) in the City's Code of Ordinances requires that odor control devices and measures be implemented with commercial cannabis businesses to ensure that odors from cannabis are not detectable off-site. Specifically, facilities are required to provide a sufficient odor absorbing ventilation and exhaust system so that odor generated inside the commercial cannabis business that is distinctive to its operation is not detected outside of the facility, anywhere on adjacent property or public rights-of-way, on or about the exterior or interior common area walkways, hallways, breezeways, foyers, lobby areas, or any other areas available for use by common tenants or the visiting public, or within any other unit located inside the same building as the commercial cannabis business. The Code of Ordinances presents two types of odor control methods or an approved equivalent that must be installed and maintained for this purpose.

1. An exhaust air filtration system with odor control that prevents internal odors from being emitted externally;
2. An air system that creates negative air pressure between the commercial cannabis business's interior and exterior, so that the odors generated inside the commercial cannabis business are not detectable on the outside of the commercial cannabis business

Moreover, under the Section 5.10.310 (Operating Requirements for Cultivation Facilities), cannabis cultivation permit applicants are required to submit a "plan for addressing odor and other public nuisances which may derive from the cultivation site".

Odor Control Project Design Features:

The proposed development will involve implementation of an odor control plan in compliance with the operating activity requirements outlined in Chapter 5.10 (Commercial Cannabis Activity) of the City's Code of Ordinances. Similarly, MDAQMD requires a Cannabis Odor Compliance Plan to be filed for every licensed cultivation operation within its jurisdiction.

To comply with the City and MDAQMD requirements, the project will include an odor control system with ventilation and filtration devices specifically sized and installed in each building to prevent internal odors from being emitted externally. The odor control plan elements will be designed and integrated with the architectural and electrical design plans for each building and will be subject to review and approval by the City. This is required by **Mitigation Measure AQ-2.**

The required design factors of the odor control plan will distinguish the extent (floor area) and configuration of odor generating areas of the building, such as those involving cultivation, drying, curing, trimming, and distribution. Examples of non-odor-generating areas include administration offices, hallways, break rooms and security rooms. The ventilation rates will be based on the room classification, floor areas, and expected occupancy. The above-noted conditions will be used to properly locate the filtered exhaust system, pressure exhaust fans, and emergency exhaust devices as part of a unified plan for each building. Air from designated areas will be captured by the system intake and into the activated carbon filters. The filtered air will subsequently be conveyed from the building interior to an exterior air dilution system consisting of a damper and mixing box and a dilution fan. During the life of the project, maintenance and operation of the filtration system will require adhering to a filter replacement schedule that lists the filter tags, locations, installation dates, replacement duration, and any other elements deemed necessary to maintain system effectiveness.

In addition to the building filtration system, the building design will also adhere to the California building code and energy code requirements applicable to exterior walls; exterior wall insulation; exterior wall openings; exterior windows and doors; and architectural trim. Manufactured exterior doors are expected to be installed with the appropriate caulking, gaskets and/or weather stripping.

The proposed system must also be approved by MDAQMD prior to implementation. Under MDAQMD regulations, the proposed odor control mechanism is categorized as a replaceable/rechargeable carbon canister. The application process with MDAQMD requires identifying the project owner, nature of operation, site drawing, operation equipment information, and detailed specifications of the odor control equipment. Information on the type of device, quantity, manufacturer, model, dimensions, and capacity must also be included for review. Failure to comply with the District rules will result in an enforcement action, with a minimum civil penalty of $5,000 per day of negligent non-compliance. Moreover, the proposed odor compliance plans will be subject to inspections by MDAQMD at least annually, as is the case for all permitted facilities within the air district jurisdiction.

In addition to demonstrating compliance with the City's Odor Control regulations, the project proponent is expected to abide by MDAQMD's rule compliance and permit process, including, but not limited to a

permit to construct (Rule 201), permit to operate (Rule 203), permit conditions, as applicable (Rule 204), and prohibition of nuisance, as applicable (Rule 402) related to the equipment and facilities involved with the Cannabis Cultivation, Extraction, and Refinement/Purification Permit Application process. The permitting process would also require a California Business & Professions Code Division 10 Compliance Plan (Cannabis Odor Compliance Plan) as required by MDAQMD Rule 302 (J)(5). MDAQMD requires a Cannabis Odor Compliance Plan to be filed for every licensed cultivation operation. Therefore, the application process will warrant identifying an odor control system and associated specifications for MDAQMD review and approval. Under Rule 204, the control devices must be installed, operated, and maintained in strict accordance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Authorized equipment must be maintained and kept in good operating condition at all times. This requirement is included as **Mitigation Measure AQ-2.** In addition, the City imposes an adaptive management requirement for greater odor control if needed based on monitoring.

In summary, the MDAQMD approval process will ensure that authorization will only be granted after fulfilling the permit requirements and conditions held to the agency standard that no operation can result in discharge from any source whatsoever such quantities of odor which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public (Rule 402).

The odor control plan will comply with the layered requirements and verification processes established by the City and MDAQMD to ensure that facility operation does not result in detectable odors or other emissions capable of affecting a substantial number of people. Therefore, less than significant impacts with the implementation of **Mitigation Measure AQ-2** are anticipated.

4.2.5 Cumulative Impacts

The MDAQMD relies on the SCAQMD guidance for determining cumulative impacts. The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby or regional projects.

Individual projects that do not generate operational or construction emissions that exceed the MDAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Conversely, individual project-related construction and operational emissions that exceed MDAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the project will not exceed the applicable MDAQMD regional threshold for construction and operational-source emissions. MDAQMD has determined that the existing Rules and Regulations in place are the best available methods toward compliance. The project does not propose a deviation from such

permitting process or those requirements and will not result in a cumulatively significant impact for construction or operational activity.

4.2.6 Mitigation Measures

AQ-1 The project shall implement a Fugitive Dust Abatement Plan to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. The Fugitive Dust Abatement Plan requires the implementation of best management practices (BMPs) such as the use of perimeter fencing, applying adhesive dust suppressant, or watering the project site. The project property shall implement the BMPs for on- and off-site improvements outlined within their project-specific Fugitive Dust Abatement Plan during construction of the project site. Additionally, each phase of construction will develop BMPs to protect previous phase occupants.

AQ-2 To comply with the City and MDAQMD requirements, the project will include an odor control system with ventilation and filtration devices specifically sized and installed in each building to prevent internal odors from being emitted externally. MDAQMD requires a Cannabis Odor Compliance Plan to be filed for every licensed cultivation operation. Therefore, the application process will include identifying an odor control system and associated specifications for MDAQMD review and approval. Under Rule 204, the control devices must be installed, operated, and maintained in strict compliance with those recommendations of the manufacturer/supplier and/or sound engineering principles which produce the minimum emissions of air contaminants. Authorized equipment must be maintained and kept in good operating condition at all times. The odor control plan elements shall be designed and integrated with the architectural and electrical design plans for each building and shall be subject to review and approval by the City.

4.2.7 Level of Significance After Mitigation

With implementation of **Mitigation Measure AQ-1** and **Mitigation Measure AQ-2,** impacts associated with air quality would be reduced to less than significant levels.

4.2.8 Resources

1. Edelweiss Sustainable Farms Air Quality Impact Analysis (AQIA), prepared by Urban Crossroads April 29, 2022
2. MDAQMD California Business & Professions Code, Division 10 operation facility cannabis odor compliance plan form
3. MDAQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, February 2020

4. MDAQMD Frequently Asked Questions about Cannabis, Permitting and the Cannabis Odor Compliance Form, 2019
5. Rules and Regulations of the Mojave Desert Air Quality Management District (MDAQMD Rule Book)

4.3 Biological Resources

4.3.1 Introduction

Descriptions and analysis in this section are based on information contained in the *General Biological Resources Assessment* prepared by James W. Cornett, Ecological Consultants (December 2021), the *Biological Resources Assessment Memo* prepared by James W. Cornett, Ecological Consultants (March 2022), the *City of Blythe General Plan 2025*, and the *City of Blythe General Plan Final Program Environmental Impact Report* (EIR). This section discusses the biological resources that may be present on the project site or in the vicinity and assesses impacts on these resources from the development associated with implementation of the Edelweiss Sustainable Farm project ("project"). The *General Biological Resources Assessment* ("biological report"), and the *Biological Resources Assessment Memo* ("Biological Memo") are included in the Appendices of this Draft EIR as **Appendix D.1** and **D.2**.

4.3.2 Existing Conditions

Physical Conditions

Topography and Soils

The project site is located within the City of Blythe, in the Palo Verde Valley, on the eastern side of Riverside County. Surrounding land uses include residential development and agriculture to the west, north and east, and Interstate 10 to the south. The terrain in most of the project area is relatively level due to long-term agricultural operations, except for the existing drainage channels in the north and east of the site, the PVID C Canal east of the easternmost drainage channel of the project, and a private irrigation ditch along the western boundary used for periodic flooding of the adjacent property. Approximately 26 acres of the project site is presently in use for agricultural row crops. This area has been tilled and harvested since at least 1948, based on historical aerial imagery. The project site lies approximately 262 feet above sea level. Soils are slightly alkaline and consist of fine sand and silt.

Vegetation

The project site has no native plant communities. It has been an agricultural field for several decades. Elements of a severely disturbed Saltbush Scrub Community were present as were elements of the Cattail Series. Native plants associated with the Saltbush Scrub Community included quailbrush, iodine bush, arrow weed, bush seepweed, and mesquite. Variations of this plant community occupy thousands of square miles of desert lands in California. Dozens of non-native weed species have invaded the site including the shrub tamarisk, Russian thistle, horseweed, nettleleaf, goosefoot silverleaf nightshade, tumble pigweed, wild oat, Chilean chess, red brome, and Bermuda grass. Cattail is confined to the

margins of the irrigation channels. The irrigation ditch along the western boundary of the site is occasionally used to flood irrigate the adjacent agricultural land to the west, and also occasionally collects water where it abuts Interstate 10. Due to a lack of maintenance of this private irrigation ditch, a number of invasive and predominantly non-native tree species including the Mexican fan palm, desert fan palm, date palm, and Freemont's cottonwood have established and grown along the southern portion of this irrigation ditch.

Wildlife

Common wildlife species observed within the project site during the field surveys include common raven, mourning dove, great-tailed grackle, brewers blackbird, house finch and house sparrow. Special status animal species observed within the boundary of the project site include the western burrowing owl.

Jurisdictional Waters

There are no naturally occurring springs on the project site. An irrigation canal forms the eastern boundary. Irrigation channels also form the northern and western boundaries of the site. Irrigation water occasionally flows from north to the south in the channel that forms the western boundary of the site. As a result, there is an artificial oasis located in the southwest corner of the site. No blue-line stream corridors (streams or dry washes) occur in the project area.

4.3.3 Regulatory Setting

Federal, State, and local regulations pertaining to the biological resources are discussed below.

Federal

Endangered Species Act

The Federal Endangered Species Act (FESA) of 1973 provides a program for the conservation and protection of endangered and threatened plants and animals and the habitats in which they are found. Section 7 of the ESA directs federal agencies to use their legal authorities to carry out conservation programs for listed species. It also requires these agencies to ensure that any actions they fund, authorize, or carry out are not likely to jeopardize the survival of any endangered or threatened species, or to destroy or adversely modify its designated critical habitat (if any) (USFWS 2020).

Additional protection is authorized by section 9 of the ESA, which makes it illegal to take, import, export, or engage in interstate or international commerce of listed animals except by permit for certain conservation purposes. "Take" is defined by the ESA as to harm, harass, wound, trap, collect, kill or the attempt to engage in such activity.

Habitat Conservation Plans

Habitat Conservation Plans (HCPs) under section 10(a)(1)(B) of the ESA provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. HCPs are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates or have been proposed for listing. Conserving species before they are in danger of extinction or are likely to become so can also provide early benefits and prevent the need for listing (USFWS 2020).

The Federal Migratory Bird Act

The Migratory Bird Treaty Act of 1918 (MBTA) governs the obligation of the United States under international treaties and conventions for the protection of migratory birds. The MBTA governs the taking, killing, possession, transportation, and importation of migratory birds, their eggs, parts and nests. The MBTA prohibits the take, possession, import, export, transport, selling, purchase, barter, or offering for sale, purchase or barter, any migratory birds, their eggs, parts, and nests, except as authorized under a valid permit by the Department of Interior U.S. Fish and Wildlife Service.

Clean Water Act

The Clean Water Act (CWA) was established in 1972 as the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the EPA has implemented pollution control programs such as setting wastewater standards for industries. The EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

It is unlawful under the CWA to discharge any pollutant from a point source, which is a discrete conveyance such as a pipe or man-made ditch, into navigable waters unless a permit is obtained. The National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Compliance monitoring under the NPDES Program encompasses a range of techniques in order to address the most significant problems and to promote compliance among the regulated community.

State

California Endangered Species Act

The California Endangered Species Act (CESA) enacted in 1970 and subsequently amended, conserves and protects plant and animal species at risk of extinction. The California Department of Fish and Wildlife (CDFW) has the responsibility for maintaining a list of threatened and endangered species (California Fish and Game Code Section 2070). CDFW also maintains a list of “candidate species,” which are species

formally noticed as being under review for addition to either the list of endangered species or the list of threatened species. In addition, CDFW maintains lists of "species of special concern," which serve as "watch lists." Pursuant to the requirements of the CESA, an agency reviewing a proposed project within its jurisdiction must determine whether any state-listed endangered or threatened species could be present on a project site and determine whether the proposed project could have a potentially significant impact on such species. In addition, CDFW encourages informal consultation on any proposed project that may affect a candidate species.

California Fish and Game Code

Under Sections 3503, 3503.5, and 3511 of the California Fish and Game Code (CFGC), it is unlawful to take, possess or cause destruction of birds, nests, and eggs. Fully protected birds may not be taken or possessed without a specific permit. Section 3505.3 protects all birds of prey and their eggs and nests against take, possession, or destruction of nests or eggs. Section 4150 of the California Fish and Game Code prohibits take or possession of all nongame mammals or parts thereof.

Native Plant Protection Act

The Native Plant Protection Act (NPPA) enacted in 1977 and implemented by the California Department of Fish and Wildlife (CDFW), prohibits the killing or possession of California rare, threatened, or endangered plant species without authorization or permit by CDFW. All state department and governing agencies are required to use their authority to enforce conservation of rare or endangered plant species.

Regional and Local

Habit Conservation Plans (HCPs)

HCPs under Section 10(a)(1)(B) of the ESA provide for partnerships with non-federal parties to conserve the ecosystems upon which listed species depend, ultimately contributing to their recovery. HCPs are planning documents required as part of an application for an incidental take permit. They describe the anticipated effects of the proposed taking; how those impacts will be minimized or mitigated; and how the HCP is to be funded. HCPs can apply to both listed and non-listed species, including those that are candidates for or have been proposed for listing.

City of Blythe General Plan

The City of Blythe General Plan (2007), conservation strategy focuses on habitat conservation as the most effective way to protect individual special status species, minimize impacts on sensitive biological resources, and preserve plant and animal diversity.

Based on anticipated results, fieldwork and other studies should be undertaken as part of the General Plan. A habitat "scoring system" should then be devised to rank sensitive habitats in the Planning Area.

This information will then be used to classify certain habitats into either Resource Conservation or Resource Management areas. The purpose of each classification is explained below.

Resource Conservation Areas (RCAs) contain the most sensitive and valuable habitat that requires protection and would be conserved. RCAs provide opportunities for various non-development oriented uses. They may be used for limited passive recreation, educational purposes, as sites for scientific study, or as locations for off-site mitigation banking when on-site habitat preservation for development projects prove infeasible. Mitigation could include enhancement or restoration components, expansion or existing RCAs through land purchase, or creation of new RCAs altogether.

Resource Management Areas (RMAs) generally contains some resources that merit long term preservation, but further study is necessary before a precise delineation of acreage to be preserved can take place. RMAs include areas of highly sensitive habitats that may be appropriate for on-site management , or for the incorporation into an existing RCA, if one is adjacent. This determination would occur during review of development proposals for sites with RMAs

Both the Resource Conservation Area and the Resource Management Areas are intended to be of sufficient size to ensure the long-term viability of the habitats and species included.

4.3.4 Project Impact Analysis

Thresholds of Significance

The thresholds used to evaluate potential impacts to biological resources are derived from Appendix G of the CEQA Guidelines. The significance determination is based on the recommended criteria set forth in Section 15064.5 of the CEQA Guidelines. For analysis purposes, development of the proposed project would have a significant effect on biological resources if it is determined that the project would:

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?
b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife Service?
c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?
d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

e. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?
f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Methodology

Methods used for the Biological Resources Assessment (referred to as "biology report" herein), included a literature review and a field survey. The biology report has been prepared in compliance with the California Environmental Quality Act (CEQA).

Field Surveys

General Biological Surveys

James W. Cornett Ecological Consultants conducted a general field survey within the project site on October 25, 26, 27, 28, and 29, 2021. Night surveys were conducted on the evenings of October 27 and 28, 2021. No surveys were conducted beyond project site boundaries due to the presence of private properties that lie to the east, west, and north of the site. Interstate 10 forms the southern boundary of the project and was considered a significant obstacle to the movement of wildlife on and off the site to the south. However, binocular surveys were conducted to the east, west and north of the project site in anticipation of observing burrowing owls and other migratory species. Survey intensity adhered to western burrowing owls survey protocol established by the California Burrowing Owl Consortium (2012) and accepted by the CDFW. Vertebrate and invertebrate surveys were conducted simultaneously with plant surveys. In addition, thirty live -animal traps (which capture animals unharmed) for large and small mammals were set on site for twenty-four-hour periods on October 27, and 28, 2021. No sensitive mammal species were observed during these surveys.

Literature Review

A literature review was conducted prior to the field work to assist in determining the biological resources that might exist within the general area, and to determine the possible occurrence of proposed and officially listed species. Records, collections and/or staff of the University of California at Riverside Herbarium, the Coachella Valley Association of Governments and the Boyd Deep Canyon Desert Research Center were consulted for more specific information as to occurrence. The California Natural Diversity Database was conducted and yielded no known occurrences of special status species.

Special-Status Species

Legal protection for special-interest species varies widely, from the comprehensive protection extended to listed threatened/endangered species, to no legal interest at present. The CDFW, U.S. Fish and Wildlife Service (USFWS), local agencies, and special-interest groups, such as the CNPS, publish watch lists of

declining species. Species on watch lists can be included as part of the special-interest species assessment. The burrowing owl is the only sensitive and protected species observed on the project site. The site is surrounded by earthen levees which owls often use to construct their burrows. For this reason, the site is considered suitable habitat. No sensitive mammalian species were observed or are expected in the completely disturbed landscape of the project site.

Special-Status Species Summary

Plants

The project has no native plant communities. It has been an agricultural field for several decades. Elements of a severely disturbed Saltbush Scrub Community were present as were elements of the Cattail Series. Native plants associated with the Saltbush Scrub Community included quailbrush (*Atriplex lentiformis*), iodine bush (*Allenrolfea occidentalis*), arrow weed (*Pluchea sericea*), bush seepweed (*Suaeda moquinii*), and mesquite (*Prosopis glandulosa*). Variations of this plant community occupy thousands of square miles of desert lands in California.

Dozens of non-native weed species have invaded the site including the shrub tamarisk (*Tamarix ramosissima*), Russian thistle (*Salsola tragus*), horseweed (*Conyza canadensis*), nettle leaf goosefoot (*Chenopodium murale*), silverleaf nightshade (*Solanum elaeagnifolium*), tumble pigweed (*Amaranthus albus*), wild oat (*Averna fatua*), Chilean chess (*Bromus berteroanus*), red brome (Bromus rubens), and Bermuda grass (*Cynodon dactylon*).

Cattail, *Typha latifolia*, and was confined to the margins of irrigation canals. The occasionally functional canal that forms the western boundary of the project site collects water where it abuts Interstate 10. The collected water has allowed the growth of a number of tree species including the Mexican fan palm (*Washingtonia robusta*), desert fan palm (*Washingtonia filifera*), date palm (*Phoenix dactylifera*) and Fremont's cottonwood. Together, they form an artificial oasis subject to the vagaries of canal use.

The Inventory of Rare and Endangered Plants of California, published by the California Native Plant Society (2001), the *CNDDB Special Plant List* (2004) and the *Endangered, Threatened, and Rare Plants of California* (2021) list a single plant species that could, conceivably, occur within or adjacent to the project site boundaries: the desert unicorn plant, *Proboscidea althaeifolia*. However, no individuals or evidence of this species were found. As the dried skeletons of the plant are quite distinctive and persist for months after the plant has expired, it was concluded that it does not occur on or near the project site. California bestows a Rare Plant Rank of 4.3 for the species because of its limited distribution in the state.

Invertebrates

Encountered invertebrates included the honeybee (Apis mellifera), eleodes beetle (Eleodes armata), harvester ant (Pogonomyrmex californicus) and southern dogface butterfly (Zerene cesonia). No special status insects or other invertebrates were found or are expected within the project boundaries.

Amphibians

Although no amphibians were encountered during field surveys, several toad species use irrigation canals to disperse into agricultural environments. Species known to be associated with irrigation networks in the greater Blythe area include the Great Plains toad (*Anaxyrus cognatus*), and Woodlouse's toad (*Anaxyrus woodhousii*). Neither of these species are considered sensitive by state or federal governments. A third amphibian known from the greater Blythe area which is considered a Species of Special Concern is Couch's spadefoot toad (*Scaphiopus couchii*), However, Couch's spadefoot is not normally associated with irrigation canal networks and is not expected to occur on or near the project site.

Reptiles

Four reptile species were detected on site: the desert spiny lizard (*Sceloporus magister*), side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*) and gopher snake (*Pituophis melanoleucus*). Effort was made to locate sign of the officially threatened desert tortoise (*Goperhus agassizi*). However, no evidence of any kind was found, and no direct observations were made. It is therefore concluded that this species does not occur within the project site and immediate vicinity. No sensitive reptile species were detected during the field surveys, and none are expected.

Birds

Birds seen within the project boundaries included the great-tailed grackle (*Quiscalus quiscula*), Brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), and the introduced house sparrow (*Passer domesticus*). One observation of a prairie falcon (*Falco mexicanus*) was recorded on October 26, 2021. No nesting habitat (cliffs) for this species occurs in or near the project site.

The western burrowing owl (*Athene cunicularia hypugaea*), a California Department of Fish & Game Species of Special Concern and a federally protected species under the Migratory Bird Act, was seen four times (October 25 and 26; November 15 and 18). However, no owl burrows were found on, or immediately adjacent to, the project site.

The Yuma clapper rail (*Rallus longirostris yumanensis*) is known to inhabit freshwater marsh environments where cattails are common. Though cattails were recorded within the site boundaries, the dense emergent freshwater marsh vegetation and ponds required by this species were not found within or near the project site. Clapper rails were not seen, and their distinct calls were not heard during any of the field days is spite of intensive searching. This species is officially listed as endangered by the federal government and threatened by the state government.

Mammals

Detected mammals included the house mouse (*Mus musculus*), desert cottontail (*Sylvilagus audubonii),* and coyote (*Canis latrans*). No sensitive mammalian species were observed or are expected in the completely disturbed landscape of the project site.

Biological Memo

On March 5, 2022, James W. Cornett provided a written response letter clarifying items in question by the City of Blythe. The Biological Memo, included as **Appendix D.2**, clarifies the burrowing owl mitigation measure, and the artificial "oasis" of invasive and non-native trees discussed in the Biological Report. The burrowing owl mitigation is discussed in discussions a, and d, and is included as **Mitigation Measure BIO-1.** Within the Biological Memo, Mr. Cornett states that there is an artificial "oasis", defined by an assortment of predominantly invasive and non-native trees, at the southwest corner of the project site resulting from lack of maintenance of a private irrigation ditch.. Cornett does not recommend preserving these trees because they have no biological value and could potentially attract animals to an unsafe location next to the I-10 freeway. He does not recommend conducting a breeding bird survey at the location because (1) he did not observe nests from the previous breeding season and (2) the cluster of trees are located immediately adjacent to a busy freeway that, in his experience, would preclude most raptors from breeding at the location. There are numerous other, safer and less disturbed tree clusters in the area.

Project Impact

a. Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service

The project-specific biology surveys and records check found no sensitive plant species that would be adversely impacted by the proposed development of the project site. The site has no native plant communities due to the agricultural use for the last several decades.

The burrowing owl is the only sensitive and protected species observed on the project site. However, no owl burrows were found on, or immediately adjacent to the project site. No other mammals that are identified as a candidate or sensitive by any local, state, or government agency, were encountered or showed substantial evidence of occupied habitat on the proposed project site. Impacts to species identified as candidate, sensitive, or special status species would be less than significant with the implementation of **Mitigation Measure BIO-1**.

b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife Service

There are no jurisdictional waters regulated pursuant to the Federal Clean Water Act (CWA) by the U.S. Army Corps of Engineers (USACE) or the Regional Water Quality Control Board (RWQCB), and no lakes, rivers, or streambeds regulated pursuant to the California Fish and Game Code by the CDFW are present within the limits of the proposed project. Since significant wash vegetation, riparian vegetation, or other sensitive natural communities (identified in local or regional plans, policies, and regulations, or by the CDFW or US Fish and Wildlife Service) does not occur at the project site, impacts of project development will be less than significant.

The artificial growth of palm and tamarisk trees found in the southwestern corner of the project site consists of a combination of native and non-native vegetation that is a result of the collection of excess irrigation water due to leaks in the ditch as well as the collection of occasional nuisance water draining from the I-10 freeway. This vegetation was determined to have no significant habitat value because no listed or sensitive plant, bird, mammal, amphibian, or reptile species, or bird nests were found in the trees and the site does not have significant value to wildlife based on observations and available information. Additionally, the vegetation has the potential to lure bird and mammal species into extremely close proximity to a busy freeway where collisions with fast-moving vehicles are very likely to occur over time. This vegetation is also subject to the vagaries of canal use and would cease to exist if the excess canal water were no longer present. Finally, most of the tree species in the oasis are non-native species, including the Mexican fan palm and date palm which are known to be invasive and usually encouraged to be removed by ecologists (see Biological Memo, **Appendix D.2**). For these reasons, there is no recommendation to preserve these trees, which are expected to be removed in connection with completing deferred maintenance of the private ditch. In an effort to upgrade the existing onsite PVID irrigation canal system, the project applicant has agreed to assist PVID in repairing and modernizing the irrigation system which has resulted in excess and wasted canal water along the western boundary. The upgrade to PVID's irrigation facilities and the private ditch along the site's western boundary will result in the elimination of the irrigation leaks. This will prohibit the occurrence of non-natural vegetation growth. As a part of the PVID irrigation facility maintenance upgrades, the vegetation will be removed. This removal would be required with or without the project and will have no significant adverse environmental effects. Therefore, the project will have no impacts on jurisdictional waters, lakes, streambeds, or riparian vegetation.

c. Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means

The site does not contain, nor is it adjacent to, federally protected wetlands, marshes or other drainage features. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey (USGS) maps for the project site nor are there botanical indicators of such corridors. As a result, implementation of the project would not result in the direct removal, filling or other hydrological interruption to federally protected wetlands. Therefore, the project will have no impacts on federally protected wetlands.

d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery site

There is no evidence of migratory wildlife corridors or native wildlife nursery sites on the project site or adjacent properties. The proposed project is not anticipated to have significant impacts related to habitat fragmentation and regional wildlife movement. An intensive effort was made to locate the burrowing owl, a species protected under the MBTA.

Although burrowing owl burrows were not observed onsite during the field investigation, the site provides suitable habitat for the species and the owls can take up residence on the site at any time. In addition, burrowing owls were observed on or around the project site during field surveys, as noted above. Development of the site while burrowing owls are present would have a potentially significant impact on this species. Therefore, mitigation is required to reduce the impact to less than significant levels. Mitigation in the form of a pre-construction burrowing owl survey shall be required using an accepted protocol (as determined by CDFW). This mitigation is included as **BIO-1** and would assure impacts are reduced to less than significant levels.

e/f. Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance, or conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan

The project has no native plant communities. It has been an agricultural field for several decades. Elements of a severely disturbed Saltbush Scrub Community were present as were elements of the Cattail Series. Cattail, *Typha latifolia*, and was confined to the margins of irrigation canals. The occasionally functional irrigation ditch that forms the western boundary of the project site collects water where it abuts Interstate 10. The collected water has allowed the growth of a number of tree species including the Mexican fan palm (Washingtonia robusta), desert fan palm (Washingtonia filifera), date palm (Phoenix dactylifera) and Fremont's cottonwood. The removal of this vegetation and trees, as described above, will not conflict with any local policy relating to these species, because the City does not have a tree preservation policy or ordinance that protects any of these species. There are no other local, regional, or state habitat conservation plans currently in place, and these trees were found to have

no biological value. Therefore, the project will have no impacts on local policies or ordinances protecting biological resources, or with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

4.3.5 Cumulative Impacts

The build out of the City of Blythe pursuant to its adopted General Plan has the potential to impact biological resources by reducing native habitat areas and directly affecting fauna. Continued urban growth and development in the City may be expected to result in displacement and loss of habitat for wildlife species occurring on currently undeveloped or sparsely developed lands. Where the native habitat is still present in the City, it may be impacted by increased vehicle travel, alteration of soils, vegetation removal, and habitat degradation associated with new development. When considered in combination with other cumulative development within the City, there is potential for adverse cumulative effects to biological resources. Environmental protection laws and regulations have been applied with increasing rigor since the early 1970s and include the California Endangered Species Act, Federal Endangered Species Act, and the Clean Water Act, as described in the Regulatory Setting earlier in this EIR chapter.

The proposed cannabis cultivation and processing project and other future cannabis projects within the City would be required to comply with local, state, and federal laws and policies and all applicable permitting requirements of the regulatory and oversight agencies intended to address potential impacts on biological resources. Regulations and requirements implemented by the California Department of Fish and Game, U.S. Fish and Wildlife Service, and U.S. Army Corps of Engineers will be enforced by the City. The requirements established by these agencies are designated to protect species, water bodies, and habitats from negative impacts associated with development.

Moreover, the City of Blythe requires field work and other special studies to be undertaken as part of the General Plan to determine if habitats are part of a Resource Conservation Area (RCA) or Resource Management Area (RMA). The studies provide an assessment of the potential impacts, and recommend mitigation measures, if necessary. The proposed project site is not located in either of these conservation areas. Therefore, with adherence to policies and programs as identified in this section, all new development will assist in minimizing cumulative impacts in regard to biological resources. Cumulative impacts are expected to be less than significant.

4.3.6 Mitigation Measures

BIO-1: A burrowing owl clearance survey shall be performed by a qualified biologist not more than 14 days prior to any site disturbance (grubbing, grading, and construction). The pre-construction survey is required to use accepted protocol (as determined CDFW). Prior to construction, a qualified biologist will survey the construction area and an area up to 500 feet outside the project limits for burrows that could be used by burrowing owls. If an active burrow is located, (1) earth

disturbance must be immediately delayed for two weeks. If earth disturbance was scheduled to commence during the breeding season of the burrowing owl (February 1 to August 31), grading/grubbing must be delayed until September 1 or until another clearance survey finds that every owl nestling has fledged (permanently left the nesting burrow). (2) Resident non-breeding owls (owls occupying burrows between September 1 and January 31) may be passively forced from their burrows by exclusion gates that allow the owls to leave the burrow but not reenter. Prior to exclusion, at least three artificial burrows must be created with 250 feet of the existing burrow. Since all the land surrounding the project is private property, the project proponent must obtain in writing the landowner's approval before constructing the artificial burrows. A qualified biologist would lead and coordinate this endeavor with the California Department of Fish and Wildlife. If the burrow is unoccupied, the burrow will be made inaccessible to owls, and construction may proceed.

4.3.7 Level of Significance after Mitigation Measure

With the implementation of **Mitigation Measure BIO-1** impacts to biological resources are reduced to less than significant levels.

4.3.8 Resources

1. General Biological Resources Assessment, James W. Cornett Ecological Consultants, December 2021.
2. Biological Resources Assessment Memo, James W. Cornett Ecological Consultants, March 2022.
3. Environmental protection Agency, https://www.epa.gov/laws-regulations/summary-endangered-species-act, accessed 2022
4. U.S. Fish and Wildlife Service, May 2020 https://www.fws.gov/endangered/what-we-do/hcp-overview.html, accessed 2022
5. Blythe 2025 General Plan, Chapter 6.4 Biological Resources and Habitat Conservation, accessed 2022

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4.4 Cultural Resources

4.4.1 Introduction

Descriptions and analysis in this section are based on information contained in the *Historical/Archaeological Resources Survey Report* prepared by CRM Tech, Inc. (January 2022), and the City of Blythe *Open Space and Conservation Element*. This section discusses the cultural resources that may be present in the project site or in the vicinity and assesses impacts on these resources from the development associated with implementation of the proposed project. The cultural resources report is included in the Appendices of this Draft EIR (**Appendix E,** *Cultural Report*).

4.4.2 Existing Conditions

Current Natural Setting

The City of Blythe comprises approximately 27-square miles of incorporated area, a limited portion of which is agricultural. The City's Sphere of Influence surrounds the incorporated City limits and comprises approximately 29,200 acres.

The project area is located on the western outskirts of the City of Blythe, which lies in the heart of the Palo Verde Valley, a narrow inland valley along the Colorado River and the California-Arizona border that is known for its agricultural production. It is bounded by Interstate Highway 10 on the south, Hobsonway on the north, and C Canal on the east. An unpaved access road and a row of trees separate the property from the adjacent parcel to the west. The nearby area to the west of the project location is dominated by agricultural pursuits, and the land uses gradually shifts to suburban and commercial to the east.

The project area consists entirely of leveled and irrigated farmland that is currently used to grow alfalfa. The ground surface has been extensively disturbed by past grade adjustment, ongoing agricultural use and, along the edges, the construction of the adjacent canal and roadways. Elevations on the property range approximately between 260 to 265 feet above mean sea level. The surface soils are composed primarily of fine silty and clayey sand. In addition to the alfalfa crops in the field, the vegetation observed in the project area also includes tumbleweed and other small grasses and shrubs along the perimeters.

Cultural Setting

Prehistoric Context

The Palo Verde Valley was traditionally much more closely associated with Arizona and New Mexico to the east, than the rest of California to the west. Although the beginning and ending dates of different

cultural horizons vary regionally, the general framework of the prehistory of Riverside County can be divided into three primary periods:

- Paleoindian Period (ca. 12,500-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.
- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

Ethnohistoric Context

The native population along the Lower Colorado River prior to European contact belonged to a broad language group known as the Yuman peoples. The Palo Verde Valley area was part of the traditional homeland of the Halchidhoma and/or Kohuana, two of the Yuman subgroups, but was later also utilized by Chemehuevi groups. To the north of the Palo Verde Valley, around present-day Parker, lived the Mohaves, and to the south, around Yuma, were the Quechans. Archaeologically, the antiquity of the Yuman tribes remains in question, although most anthropologists agree that they have occupied the Colorado River region for at least 1,000 years.

Unlike the native people living father to the west, the Yumans practiced agriculture, as their neighhbors to the east and south, and are reported to have practiced flood irrigation of crops. The Yuman cultures also engaged in frequent warfare and migrations, to such a degree that it is difficult to reconstruct tribal territorial boundaries. In 1604-1605, the Spanish explorer Juan de Oñate encountered the Halchidhoma much farther south of the Palo Verde Valley, near the Gila River. A century later, Francisco Garcés, another Spanish explorer, reported that the group had moved to the Parker area, nearly 100 miles to the north. By the 1830's, the Halchidomas had been driven from the river and absorbed by the Maricopa's.

Today, the nearest federally recognized Native American group to the project site is the Colorado River Indian Tribes, which claim some 3,500 members of Mohave, Chemehuevi, Hopi, and Navajo heritage.

Cultural presence of these native people is demonstrated through the ongoing practice of bird singing, peon playing, funeral ceremonies, and other forms of ancient traditions.

Historic Context

Although Spanish explorers visited the general vicinity of the project area as early as the mid-1770s, this portion of the Lower Colorado Valley received little attention from the non-Native people until the discovery of gold placers near La Paz in the early 1860s ushered in a miniature gold rush in the vicinity. The placers were largely exhausted by 1863, but La Paz managed to stay alive for three more years as a shipping port until the Colorado River shifted its course westward in 1866, leaving the former mining community landlocked. The shipping business moved to Ehrenberg, a new port along the river six miles to the south, and La Paz became a ghost town.

The gold rush, though short lived, gave rise to a number of competing stage coach lines between Los Angeles and Ehrenberg that operated along an ancient Indian trading route known as the Cocomaricopa Trail. Among the Anglo-Americans, the trail was better known as the Bradshaw Trail after it was "discovered" in 1862 by William D. Bradshaw. Although they serve as a lifeline to the La Paz gold fields, by the late 1870s the stagecoach services on the Bradshaw Trail were gradually discontinued, especially after the completion of the Southern Pacific Railroad from Los Angeles to Yuma in 1876-1877.

Around that time, a large-scale land development scheme in the Palo Verde Valley began to sow the seeds of today's City of Blythe. In 1875, Thomas H. Blythe, an English-born San Francisco millionaire, and his partners bought 40,000 acres of government land in the area and began to construct irrigation canals in order to develop their vast holding for agricultural purposes. At the heart of the scheme was a townsite that Blythe named "Blythe City" in compliment to himself.

Due to delays caused by litigation after his sudden death in 1883, the town plat of Blythe City was not filed with Riverside County authorities until 1908. The name of the town was soon shortened to Blythe, and in 1916, by a popular vote, citizens of Blythe chose to incorporate their small town as the sixth city in Riverside County. By 1912, the area was home to 12,000 acres of irrigated farm land, and the Palo Verde Irrigation District was formed in 1923. By 1963, the District has constructed 295 miles of canals serving the 86,000 acres of irrigated on farmland that dominated the local region at the time. This agricultural character has been largely maintained to the present day except that it was ultimately expanded to a total of 104,500 acres on the Valley floor and up to 16,000 acres on the adjacent Palo Verde Mesa.

4.4.3 Regulatory Setting

Federal

National Historic Preservation Act

The National Historic Preservation Act (NHPA) (54 USC 300101 et seq.) instituted a multifaceted program, administered by the Secretary of the Interior, to encourage sound preservation policies of the nation's cultural resources at the federal, State, and local levels. The NHPA authorized the expansion and maintenance of the National Register of Historic Places (NRHP), established the position of State Historic Preservation Officer, and provided for the designation of State Review Boards. The NHPA also set up a mechanism to certify local governments to carry out the goals of the NHPA and created the Advisory Council on Historic Preservation (ACHP).

Section 106 of the NHPA (54 USC 306108) states that federal agencies with direct or indirect jurisdiction over federally funded, assisted, or licensed undertakings must take into account the effect of the undertaking on any historic property that is included in or eligible in the NRHP. After an undertaking is identified, federal agency stakeholders must consult by notifying the appropriate consulting parties. Consultation is between the federal agency, the State Historic Preservation Officer (SHPO) or Tribal Historic Preservation Officer (THPO), and other consulting parties including but not limited to the ACHP, certified local governments, and members of the general public with an economic, social or cultural interest in the project.

National Register of Historic Places

The National Register of Historic Places (NRHP) was established by the NHPA in 1966 as "an authoritative guide to be used by federal, state, and local governments, private groups and citizens to identify the Nation's cultural resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR part 60.2). The NRHP recognizes properties that are significant at the national, state, and local levels. To be eligible for listing in the NRHP, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must also possess integrity of location, design, setting, materials, workmanship, feeling, and association.

A property is eligible for the NRHP if it is significant under one or more of the following criteria:

- **Criterion A:** It is associated with events that have made a significant contribution to the broad patterns of our history.
- **Criterion B:** It is associated with the lives of persons who are significant in our past.
- **Criterion C:** It embodies the distinctive characteristics of a type, period, or method of construction, or represents the work of a master, or possesses high artistic values, or represents a significant and distinguishable entity whose components may lack individual distinction.
- **Criterion D:** It has yielded, or may be likely to yield, information important to prehistory or history. Ordinarily cemeteries, birthplaces, or graves of historic figures; properties owned by religious institutions or used for religious purposes; structures that have been moved from their original locations; reconstructed historic buildings; and properties that are primarily commemorative in nature are not considered eligible for the NRHP unless they satisfy certain

conditions. In general, a resource must be 50 years of age to be considered for the NRHP unless it satisfies a standard of exceptional importance.

State

California Register of Historical Resources

Created in 1992 and implemented in 1998, the California Register of Historical Resources (CRHR) is "an authoritative guide in California to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" Public Resources Code (PRC) (Sections 21083.2 and 21084.1). Certain properties, including those listed in or formally determined eligible for listing in the NRHP and California Historical Landmarks numbered 770 and higher, are automatically included in the CRHR. Other properties recognized under the California Points of Historical Interest program, identified as significant in historical surveys, or designated by local landmark programs, may be nominated for inclusion in the CRHR. According to PRC Section 5024.1 (c), a resource, either an individual property or a contributor to a historic district, may be listed in the CRHR if the State Historical Resources Commission determines that it meets one or more of the following criteria, which are modeled on NRHP criteria:

- **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
- **Criterion 2:** It is associated with the lives of persons important in our past.
- **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
- **Criterion 4:** It has yielded, or may be likely to yield, information important in history or prehistory.

California Environmental Quality Act

CEQA also requires lead agencies to determine if a project would have a significant effect in the environment, including significant effects on historical or archaeological resources. Under PRC Section 21084.1, a project that may cause a substantial adverse change to the significance of a historical resource is a project that may have a significant effect on the environment. CEQA guidelines recognize that historical resources include:

- A resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the CRHR;

- A resource included in a local register of historical resources, as defined in PRC Section 5020.1(k), or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and
- Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California.

If a lead agency determines that an archaeological site is a historical resource, then the resource under CEQA must be protected. If a project may cause a substantial adverse change to the resource and avoidance is not feasible, the lead agency must identify potentially feasible measures to lessen the impact to less than significant levels.

If an archaeological site does not meet the historical resource criteria contained in the State CEQA Guidelines, and it is not deemed a unique archaeological resource in accordance with PRC § 21083.2 and CEQA Guidelines § 15064.5, no further action would be required.

California Health and Safety Code

The California Native American Graves Protection and Repatriation Act of 2001 is intended to provide a seamless and consistent state policy to ensure that all California Indian human remains, and cultural items be treated with dignity and respect. The intent of the legislature shall also do the following:

- Apply the state's repatriation policy consistently with the provisions of the Native American Graves Protection and Repatriation Act (25 U.S.C. Sec. 3001 et seq.), which was enacted in 1990.
- Facilitate the implementation of the provisions of the federal Native American Graves Protection and Repatriation Act with respect to publicly funded agencies and museums in California.
- Encourage voluntary disclosure and return of remains and cultural items by an agency or museum.
- Provide a mechanism whereby lineal descendants and culturally affiliated California Indian tribes that file repatriation claims for human remains and cultural items under the Native American Graves Protection and Repatriation Act (25 U.S.C. Sec. 3001 et seq.) or under this chapter with California state agencies and museums may request assistance from the commission in ensuring that state agencies and museums are responding to those claims in a timely manner and in facilitating the resolution of disputes regarding those claims.
- Provide a mechanism whereby California tribes that are not federally recognized may file claims with agencies and museums for repatriation of human remains and cultural items.

Regional and Local

City of Blythe General Plan

The City of Blythe General Plan (2007), includes the following goals, and implementing policies:

25. Policy: *Protect archaeologic, historic, and paleontologic resources for their aesthetic, scientific, educational, and cultural value.*

Implementation: *Require a records search for any development project proposed in areas of high archaeological sensitivity to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources.*

Implementation: *Require that sponsors of projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by State law, are found, require preparation of an archaeologic resource mitigation plan; monitor the project to ensure that mitigation measures are implemented.*

More specifically, project sponsors will be required to adhere to the following, which will be implemented as an environmental mitigation measure or condition of project approval:

- *In the event that any cultural resources are discovered during clearing, grading or construction, project operations shall cease until a qualified archaeologist has evaluated the situation. Following the evaluation, the project sponsor shall implement recommendations provided by the archaeologist, in consultation with the City, that are consistent with State law.*
- *If human skeleton remains are encountered during construction of a project, the County Coroner shall be notified. If the remains are Native American, the coroner has 24-hours to notify the Native American Heritage Commission.*
- *Any cultural resources found on the proposed project site will be recorded or described in a professional report and submitted to the University of California at Riverside.*

4.4.4 Project Impact Analysis

Thresholds of Significance

The thresholds used to evaluate potential impacts to cultural resources are derived from Appendix G of the CEQA Guidelines. The significance determination is based on the recommended criteria set forth in Section 15064.5 of the CEQA Guidelines. For analysis purposes, development of the proposed project would have a significant effect on cultural resources if it is determined that the project would:

a. Cause a substantial adverse change in the significance of a historical resource pursuant to 15064.5?
b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to 15064.5?
c. Disturb any human remains, including those interred outside of formal cemeteries.

Methodology

CRM Tech, Inc. ("CRM Tech") conducted a Historical/Archaeological Resources Survey Report ("Cultural Report") which included a records search, historical background research, contacted Native American representatives, and carried out an intensive-level field survey of the entire project area, in order to identify cultural resources in the project area. The methods and results of the project's cultural resources reports are provided below.

Records Search

CRM Tech completed the records search at the Eastern Information Center (EIC), University of California, Riverside, on July 7, 2021. During the records search, CRM Tech examined maps and records on file at the EIC for previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

Historical Research

Historical background research for the Cultural Report was conducted by CRM Tech. Sources consulted during the research included published literature in local and regional history, the U.S, General Land Office (GLO) land survey plat maps dated 1856 and 1874, U.S. Geological Survey (USGS) topographic maps dated 1942-1975, and aerial photographs taken in 1948-2020. The historic maps are accessible at the websites of the Bureau of Land Management (BLM) and the USGS. The aerial photographs are available from the Nationwide Environmental Title Research (NETR) Online website, and through the Google Earth software.

Field Survey

On September 10, 2021 CRM Tech carried out the intensive-level field survey of the project area. Dictated by variations in the density of vegetation cover and, in the level of ground visibility, the survey utilized a combination of reconnaissance-level and intensive level field procedures. The intensive level survey, covering mainly the western, northern and eastern edges of the property, was conducted by walking a series of parallel transects at five-meter intervals.

Most of the interior portion of the property was surveyed at reconnaissance level by walking along the roads across alfalfa fields and inspecting ground surface wherever it is exposed, aided by an aerial drone flying over and photographing the areas covered by the crops. In this way, the entire project area was surveyed systematically for any evidence of human activities dating to the prehistoric or historic period. In light of the extent of past disturbance to the ground surface, the levels of ground visibility and survey effort were deemed adequate for the purpose of the project specific historical and archaeological report.

Native American Participation

On July 7, 2021, CRM Tech submitted a written request to the State of California's Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Following the NAHC's recommendations and previously established consultation protocol, CRM Tech further contacted a total of 13 Native American representatives in the region in writing on July 30, 2021, for additional information on potential Native American cultural resources in the project vicinity. In an e-mail reply on July 30, 2021, Jill McCormick stated that the Quechan Tribe of Fort Yuma Reservation has no comments regarding this project. To date, no other tribes responded to CRM Tech's requests for comments.

City of Blythe initiated Tribal consultation, as required by AB 52. The consultation period started on October 21, 2021 and ended on January 19, 2022. The City sent ten letters to local Tribal representatives that have requested consultation on new development projects. Of the ten notices, only the Agua Caliente Band of Cahuilla site is not within their Traditional Use Area and deferred to other Tribes in the area (**Appendix E**). The City did not receive any requests for additional consultation.

Previous Studies in the Vicinity

According to EIC records, the project area had not been surveyed systematically for cultural resources prior to this study, and no cultural resources had been recorded within the project boundaries. However, EIC records further indicate that two linear surveys were previously completed along the eastern and southern edge of the project boundaries, focusing on the right-of-way of C Canal and Interstate 10, respectively. During the survey along the C Canal, completed in 2001, the canal was recorded into the California Historical Resources Inventory as Site 33-011044.

Lying outside but adjacent to the current project boundary, C Canal was described at the time as being 12 meters in width and lined with dirt, flanked by earthen levees on both sides. The 2001 survey was conducted for a project that would not impact the canal so no further information was provided in the site records or the accompanying report, nor was site 33-011044 evaluated for historic significance. No other cultural resources were previously recorded within the scope of the records search.

Project Impact

a. Would the project cause a substantial adverse change in the significance of a historical resource as pursuant to section §15064.5?

Cultural resources include properties designated as California Historical Landmarks, Points of Historic Interest, or Riverside County Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

Historical sources consulted for this study suggest that development in the project vicinity in historic times followed a typical pattern for rural towns and communities established along transportation corridors across southern California. In the 1850s-1870s, when the U.S. government completed the first systematic land surveys in the Palo Verde Valley, the only man-made features reported in the project vicinity were a sparse web of wagon roads. Most notable among these was the main road to San Bernardino, a part of the historic Cocomaricopa-Bradshaw Trail, which traversed approximately one mile south of the project location. During the 1870s Thomas H. Blythe began to acquire large tracts of land in the area and build an irrigation system for the development of an agrarian settlement.

By the 1940s, most of the major irrigation canals in use around the City of Blythe were known to be present along their present-day alignments, including the segment of C Canal along the eastern project boundary. To the north of the project area, Hobson Way served at the time as a part of U.S. Route 60/70, the original Ocean-to-Ocean Highway from southern California to Virginia and North Carolina. It remained in that function until the construction of Interstate Highway 10 to the south during the 1960s.

In 1940, at least one building appeared to be present at the project location. By 1948, two buildings were known to be located in the eastern portion of the project area, evidently a farmhouse and a barn, accompanied by a cluster of trees and an unpaved road running north-south across the parcel. Between 1970 and 1994, however, all of these features were removed, leaving no identifiable remnants in the landscape. Since then, the entire project area has been used as an agricultural field.

The field survey encountered no cultural resources within the project boundaries. Outside but adjacent to the eastern project boundary, C Canal was observed in the same general condition as recorded in 2001. The only feature associated with the canal lying within the project boundaries is a portion of the earthen levee along the western bank of the canal. Both the canal and the levee show clear signs of frequent upgrading and maintenance in the modern era, and as result neither of them demonstrates any distinctively historical characteristics. On the western side of the levee, a diversion ditch that is partially lined with concrete runs parallel to the main canal that was noted during the field survey. A minor irrigation feature of unclear age, the diversion ditch has little potential for historical significance. Therefore, it requires no further study.

Per the project specific Historical and Archaeological Resources report, no potential historical resources were identified within the project area throughout the course of the study, but the segment of C Canal adjacent to eastern project boundary was previously recorded as Site 33-011044. This segment of the canal is known to have followed the same alignment since at least the 1940s. As a working component

of the modern irrigation infrastructure, however, the nondescript earthen canal demonstrates no distinctively historical characteristics due to frequent upgrading and maintenance in recent decades and lack of sufficient historical integrity. Moreover, the proposed project will not impact the current characteristics of the canal and Site 33-011044 requires no further consideration. No impacts to historical resources are expected.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Archaeological resources are described as cultural resources, such as structures or objects that provide evidence of past human activity. They are important for scientific, historic, and/or religious reasons to cultures, communities, groups or individuals. As previously discussed, the project site had not been surveyed for cultural resources prior to the current project-specific report, and no cultural resources had been recorded within the project boundaries. EIC records indicate that two linear surveys were previously completed along the eastern and southern project boundaries, focusing on the rights-of-way of C Canal and Interstate 10. C Canal is outside but adjacent to the current project boundary. The canal was recorded into the California Historical Resources Inventory as Site 33-011044. No further information was provided in the site records or the accompanying report, nor was Site 33-011044 evaluated for historic significance. No other cultural resources were previously recorded within the scope of the records search. The project site is completely leveled and irrigated farmland that is currently used to grown alfalfa. The current ground surface has been substantially disturbed by past grade, adjustments and ongoing agricultural uses. The project site is not in an area of high archaeological sensitivity and there is no likelihood of discovery of archeological resources, and therefore, the project is in compliance with the City's General Plan Policy*: Protect archaeologic, historic, and paleontologic resources for their aesthetic, scientific, educational, and cultural value and the following Implementation:*

Implementation: *Require a records search for any development project proposed in areas of high archaeological sensitivity to determine whether the site contains known prehistoric or historic cultural resources and/or to determine the potential for discovery of additional cultural resources.*

Implementation: *Require that sponsors of projects on sites where probable cause for discovery of archaeological resources (as indicated by records search and where resources have been discovered in the vicinity of the project) retain a consulting archaeologist to survey the project site. If unique resources, as defined by State law, are found, require preparation of an archaeologic resource mitigation plan; monitor the project to ensure that mitigation measures are implemented.*

Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. In that event, the project Applicant and its contractors would be required to

adhere to all City and State procedures, including CEQA Guidelines Section 15064.5, regarding stoppage of work, handling of uncovered resources, and notification of proper authorities to ensure that the project would not have an adverse effect on such resources. Since these are enforced by the city and state, they are not considered mitigation measures, and will be implemented as regulatory requirements. Therefore, no impacts to archaeological resources are expected.

c. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

As described above, the project site has undergone extensive ground disturbance and is currently used to grow alfalfa. No historical or archaeological resources were found on the site, and none have been recorded. Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. Therefore, pursuant to the California Health and Safety Code Section 7050.5, and the CEQA Guidelines Section 15064.5, in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. If the coroner determines the remains to be Native American or has reason to believe that they are those of Native American, the coroner shall contact the Native American Heritage Commission within 24-hours. Compliance with the California Health and Safety Code will ensure that proper actions shall be taken in the event of a discovery or recognition of any human remains during project construction activities. Additionally, General Plan Policy 25 states:

- *In the event that any cultural resources are discovered during clearing, grading or construction, project operations shall cease until a qualified archaeologist has evaluated the situation. Following the evaluation, the project sponsor shall implement recommendations provided by the archaeologist, in consultation with the City, that are consistent with State law.*
- *If human skeleton remains are encountered during construction of a project, the County Coroner shall be notified. If the remains are Native American, the coroner has 24-hours to notify the Native American Heritage Commission.*
- *Any cultural resources found on the proposed project site will be recorded or described in a professional report and submitted to the University of California at Riverside.*

General Plan Policy 25 is considered a standard condition for development projects within the City, therefore, mitigation is not required. The implementation of the regulatory requirements at the project site will ensure project impacts to cultural resources and human remains are less than significant levels.

4.4.5 Cumulative Impacts

Build out of the General Plan area, including lands of the proposed project, has the potential to cumulatively impact cultural resources. Development within the project site, however, does not have

the potential to significantly impact cultural resources because of the extensive site disturbance and past and current agricultural operations. Development of other projects within the City and surrounding area would also have the potential to result in impacts to cultural resources. These projects will be subject to the same standard requirements, mitigation measures (as applicable), and compliance with federal and State law as the proposed project. Although continued development has the potential to cumulatively impact these resources, the continued application of City policies, General Plan policies and programs, federal and State law all will assure that cumulative impacts associated with cultural resources will be less than significant.

4.4.6 Mitigation Measures

Mitigation Measures are not required.

4.4.7 Level of Significance After Mitigation

The topic of Cultural Resources does not involve significant impacts requiring mitigation.

4.4.8 Resources

1. Blythe 2025 General Plan, Chapter 6.4 Biological Resources and Habitat Conservation, accessed 2022
2. Historical/Archaeological Resources Survey Report Cannabis Cultivation Project, CRM Tech, January 2022.

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4.5 Energy Resources

4.5.1 Introduction

This section describes the existing energy resources setting and potential impacts from implementation of the proposed project.

Appendix G and Appendix F of the CEQA Guidelines requires that an environmental impact report (EIR) discuss the potential energy impacts of proposed projects, with particular emphasis on avoiding or reducing inefficient, wasteful, and unnecessary consumption of energy to ensure that energy implications are considered in project-related decision-making processes. As such, this section analyzes the energy impacts of the proposed project. Specifically, this section summarizes the existing conditions in the project area, discusses the regulatory framework, and discloses estimated energy use during the construction and operational phases of the proposed project.

Information for this section was obtained from the *Edelweiss Sustainable Farms Greenhouse Gas Analysis*, April 2022 (**Appendix I**) and the *Edelweiss Sustainable Farms Traffic Study* and *VMT Analysis* (**Appendix M.1** and **M.2**). Calculations within the project's *Greenhouse Gas Analysis* (GHGA) were provided by CalEEMod Version 2020.4.0 (also included in **Appendix I**). Additional information regarding project-specific electrical facilities and consumption were provided by SoCal West Coast Electric in their Engineering Package Submittal to Southern California Edison (**Appendix F.1**) and Southern California Edison's Will Serve Letter (**Appendix F.2**). Documents relevant to the analysis of energy resources include the *Blythe General Plan*, and *General Plan EIR*. Sources used in the preparation are included in **Chapter 8.0, *References*,** at the end of this Draft EIR.

Section 4.2, *Air Quality*, **Section 4.7, *Greenhouse Gas Emission***, **Section 4.12, *Transportation,*** and **Section 4.14*, Utilities and Service Systems***, of this Draft EIR provide further discussion regarding the project's estimated energy use and infrastructure, as well as any associated environmental impacts. This portion of the Draft EIR primarily concentrates on energy consumption via electricity and mobility-related petroleum (gasoline and diesel fuel).

4.5.2 Existing Conditions

The proposed project currently occupies approximately 34 acres of land previously used for agricultural operations. Energy sources are made available to the City of Blythe by State and federally regulated public utilities. Major energy providers include Southern California Edison (SCE), and the Southern California Gas Company (The Gas Company or SoCalGas). Electricity and natural gas are the primary sources of energy in the City of Blythe.

Title 24 of the California Administrative Code sets efficiency standards for new construction, regulating energy consumed for heating, cooling, ventilation, water heating, and lighting. These building efficiency standards are enforced through the City's building permit process.

Electricity

State

The California Energy Commission (CEC) is the state's primary energy policy and planning agency and plays a critical role in implementing and creating policies and programs to create a low-carbon economy. According to the CEC's Energy Consumption Database, the State of California consumed approximately 279,510 gigawatt hours (GWh) of electricity in the most recent available year, 2020. Electricity demand in California is projected to rise to approximately 354,209 GWh (high energy demand) in 2030.

Electricity usage in California for different land uses varies substantially by the type(s) of uses in a building, type(s) of construction materials used in a building, and the efficiency of all electricity consuming devices within a building. Due to the State's energy efficiency standards and efficiency and conservation programs, California's per capita electricity use has remained stable for more than 30 years, while the national average has steadily increased. The State produces approximately 82 percent of its electricity and imports the remaining 18 percent. The California Independent System Operator (ISO) governs the transmission of electricity from power plants to utilities.

Regional and Local

Southern California Edison

SCE is one of the nation's largest electric utilities, providing electricity service to more than 15 million people in a 50,000 square-mile area of central, coastal and Southern California. SCE serves residents in Fresno, Imperial, Inyo, Kern Kings, Los Angeles, Madera, Mono, Orange, Riverside, San Bernardino, Santa Barbara, Tuolumne, Tulare and Ventura Counties. According to the CEC Energy Consumption Database, approximately 104,406 GWh was consumed in SCE's service area in 2018**.**

SCE is regulated by the California Public Utilities Commission (CPUC) and the Federal Energy Regulatory Commission (FERC). SCE receives electric power from a variety of sources. According to the Edison International 2019 Sustainability Report, SCE delivered an estimated 48 percent carbon-free electricity to customers. This is an improvement from the 46 percent renewable energy portfolio that SCE achieved in 2018. Electricity distribution lines in the project area are located above and underground. Each year, SCE allocates capital funds for the purposes of converting overhead electric distribution lines. Under provisions of Rule 20A established by the CPUC, the City may designate major streets for underground overhead lines.

In addition, SCE provides a variety of energy conservation programs to City residents and businesses. These programs include:

- Rebates, incentives and saving tips including a Summer Discount Plan, Mobile Home Upgrade Program, Budget Assistant and Time-of-Use Plans.
- Incentives for using electric vehicles including the Clean Fuel Reward Program and the Charge Ready Home Installation rebate.
- Energy Management Center introduces new energy management products, programs, rebates and tools.

City of Blythe General Plan

The City of Blythe has committed to reducing its consumption of electricity through a number of polices listed in the General Plan, including the following in the Open Space and Conservation Element regarding energy resources:

25. Policy: Conserve scarce or nonrenewable energy resources.

26. Policy: Promote energy efficiency in new subdivisions and in building design and encourage use of alternative building materials.

Project Electricity

Electric utilities for the site will be provided by SCE. The project will be required to connect to the existing electricity infrastructure north of Hobsonway in order to provide power to the site. Construction for the connection would occur in the existing right-of-way (see **Section 4.14, *Utilities and Service Systems***). The project proposes using a total of two (2), 12.47 kilovolt (KV) primary metered electrical services. The proposed buildings would have a connected load of approximately 28.9 Megawatt (MW) with a load diversity of 75 percent, meaning that the project will operate at its nominal or maximum load level 75 percent of the time that it is connected and turned on (not all loads will run at full capacity at the same time).

Petroleum

State

There are more than 27 million registered vehicles in California, and those vehicles consumed an estimated 18.5 billion gallons of petroleum and diesel in 2014, according to the CEC. Gasoline and other vehicle fuels are commercially provided commodities and would be available to the project via commercial outlets.

According to CEC, transportation accounts for nearly 37 percent of California's total energy consumption. Petroleum-based fuels account for approximately 92 percent of California's transportation energy

sources. Technological advances, market trends, consumer behavior, and government policies could result in significant changes to fuel consumption by type and in total. Various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and GHG emissions, and reduce vehicle miles traveled (VMT), at the federal and State levels. Technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

Regional and Local

The Southern California Association of Governments (SCAG) region encompasses six counties (Imperial, Los Angeles, Orange, Riverside, San Bernardino and Ventura) and 191 cities in an area covering more than 38,000 square miles. The agency develops long-range regional transportation plans including sustainable communities strategy and growth forecast components, regional transportation improvement programs, regional housing needs allocations and a portion of the South Coast Air Quality management plans. The agency projects that the SCAG area would consume approximately 7 billion gallons of total petroleum fuel annually in 2045.

Project Petroleum

The project proposes a cannabis facility consisting of 12 buildings, paved drive aisles and parking spaces, retention basins, and landscaping throughout. It is anticipated that the project will have approximately 534 employees at buildout of the project. This amounts to a service population (SP) of 534, according to the *Vehicle Miles Traveled (VMT) Analysis,* provided by Urban Crossroads (**Appendix M.2**). The VMT Analysis also determined that the project would result in 26.47 VMT per employee per day. Based on the calculations provided by Urban Crossroads for the air quality and greenhouse gas reports, annual vehicle miles traveled generated by the project would be 8,497,354 VMT.

Project access will be provided by the paved public roadway immediately north of the site, Hobsonway. Hobsonway traverses the City of Blythe and provides east-west access through the City. The project's internal circulation system will consist of a series of internal paved driveways.

4.5.3 Regulatory Setting

Federal

Clean Power Plan

In June 2014, the Environmental Protection Agency (EPA) proposed the Clean Power Plan (CPP), the first-ever carbon pollution standards for existing power plants that puts the US on the path toward a 30 percent reduction in carbon pollution from the power sector by 2030. Power plants are the largest single source of carbon pollution, accounting for about one-third of all domestic greenhouse gas emissions.

The CPP sets standards for carbon pollution from power plants, just as the US has set limits on power plant emissions of arsenic, mercury, sulfur dioxide, nitrogen oxides, and soot.

Climate Action Plan

On June 25, 2013, President Obama announced the Climate Action Plan (CAP), a national plan for tackling climate change. The CAP is divided into three sections and outlines the steps to cut carbon pollution in the United States, including standards for both new and existing power plants, action to prepare the U.S. for the impacts of climate change, and plans to lead international efforts to address global climate change.

Federal Regulation and the Clean Air Act

On December 7, 2009, the EPA issued an Endangerment Finding under Section 202(a) of the Clean Air Act, opening the door to federal regulation of GHGs. The Endangerment Finding noted that GHGs threaten public health and welfare and are subject to regulation under the Clean Air Act. To date, the EPA has not promulgated regulations on GHG emissions, but it has begun to develop them.

Corporate Average Fuel Economy Standards

First established by the U.S. Congress in 1975, the Corporate Average Fuel Economy (CAFE) Standards reduce energy consumption by increasing the fuel economy of passenger cars and light trucks. The National Highway Traffic Safety Administration (NHTSA) and the U.S. Environmental Protection Agency (USEPA) jointly administer the CAFE standards. The U.S. Congress has specified that CAFE standards must be set at the "maximum feasible level" with consideration given for: (1) technological feasibility; (2) economic practicality; (3) effect of other standards on fuel economy; and (4) need for the nation to conserve energy.

Federal Energy Regulatory Commission

The Federal Energy Regulatory Commission (FERC) is an independent agency that regulates the transmission and sale of electricity, natural gas, and oil in interstate commerce, licensing of hydroelectric projects, and oversight of related environmental matters. The setting and enforcing of interstate transmission sales is also regulated by FERC.

Federal Energy Policy and Conservation Act

In 1975, Congress enacted the Federal Energy Policy and Conservation Act to serve the nation's energy demands and promote feasibly attainable conservation methods. This act established the first fuel economy standards for on-road motor vehicles in the United States. Pursuant to the act, the National Highway Traffic Safety Administration is responsible for establishing additional vehicle standards. In 2012, new fuel economy standards were approved for model year 2017 passenger cars and light trucks

at 54.5 miles per gallon. Fuel economy is determined based on each manufacturer's average fuel economy for the fleet of vehicles available for sale in the United States.

Intermodal Surface Transportation Efficiency Act of 1991

The Intermodal Surface Transportation Efficiency Acts of 1991 (ISTEA) promoted the development of intermodal transportation systems to maximize mobility, as well as address national and local interests in air quality and energy. ISTEA contained factors that metropolitan planning organizations (MPOS) were to address in development transportation plans and programs, including some energy-related factors. To meet the new ISTEA requirements, MPOs adopted explicit policies defining the social, economic, energy, and environmental values guiding transportation decisions.

The Transportation Equity Act for the 21st Century

The Transportation Equity Act for the 21st Century (TEA-21) was signed into law in 1998 and builds on the initiatives established in the ISTEA legislation, discussed above. TEA-21 authorizes highway, highway safety, transit, and other efficient surface transportation programs. TEA-21 continues the program structure established for highways and transit under ISTEA, such as flexibility in the use of funds, emphasis on measures to improve the environment, and focus on a strong planning process as the foundation of informed transportation decisions. TEA-21 also provides for investment in research and its application to maximize the performance of the transportation system through, for example, deployment of Intelligent Transportation Systems, to help improve operations and management of transportation systems and vehicle safety.

Energy Policy Act of 2005

The Energy Policy Act of 2005 addresses energy production in the United States, including (1) energy efficiency; (2) renewable energy; (3) oil and gas; (4) coal; (5) tribal energy; (6) nuclear matters and security; (7) vehicles and motor fuels, including ethanol; (8) hydrogen; (9) electricity; (10) energy tax incentives; (11) hydropower and geothermal energy; and (12) climate change technology. The act includes provisions such as increasing the amount of biofuel that must be mixed with gasoline sold in the United States and loan guarantees for entities that develop or use innovative technologies that avoid the by-production of greenhouse gases (GHGs).

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, the EISA includes other provisions related to energy efficiency:

- Renewable Fuel Standard (RFS) (Section 202)
- Appliance and Lighting Efficiency Standard (Sections 301-325)

- Building Energy Efficiency (Sections 411-441)

This federal legislation requires ever-increasing levels of renewable fuels to replace petroleum. The USEPA is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel. The RFS program regulations were developed in collaboration with refiners, renewable fuel producers, and many other stakeholders.

The RFS program was created under the Environmental Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the Act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, and RFS program was expanded in several key ways that lay the foundation for achieving the significant reduction of GHG emissions from the use of renewable fuels, for reducing imported petroleum, and encouraging the development and expansion of the nation's renewable fuel sector. The updated program is referred to as RFS2 and includes the following:

- Expanded RFS program to include diesel, in addition to gasoline.
- Increased volume of renewable fuel required to by blended into transportation fuel from nine billion gallons in 2008 to 36 billion by 2022.
- New categories of renewable fuel and separate volume requirements for each one.
- Requirement that the USEPA apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, promoting research for alternative energy, additional research in carbon capture, international energy programs, and the creation of "green" jobs.

Leadership in Energy and Environmental Design

The U.S. Green Building Council (USGBC) is committed to transforming the way buildings are designed, constructed, and operated through the Leadership in Energy and Environmental Design (LEED) certification program. LEED acts as a certification program for buildings and communities to guide their design, construction, operations and maintenance toward sustainability. LEED is based on prerequisites and credits that a project meets in order to achieve a certification level of Certified, Silver, Gold, or Platinum.

State

California Code of Regulations Title 13, Section 2449(d)(3) and 2485

The California Air Resources Board (CARB) is responsible for enforcing California Code of Regulations (CCR) Title 13 Sections 2449(d)(3) and 2485, which limit idling from both on-road and off-road diesel-powered equipment.

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Located in CCR Title 24, Part 6 and commonly referred to as "Title 24", these energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The goal of Title 24 energy standards is the reduction of energy use. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. The 2019 Title 24 Standards were approved and adopted by the California Building Standards Commission in December 2018, with the effective date beginning January 1, 2020. This standard require new homes to include at least 50 percent of kitchen lighting to be LED, compact fluorescent or similar high efficiency fixtures, double pane windows, cool roofs, and other design techniques to reduce heat loss.

Title 24 also includes Part 11, known as California's Green Building Standards (CALGreen). The CALGreen standard took effect in January 2011 and instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential, and State-owned buildings, as well as schools and hospitals. The 2019 CALGreen standards became effective on January 1, 2020. Part 11 establishes design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

Appliance Efficiency Regulations (Title 20)

CCR, Title 20 regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment.

Energy Action Plan II

The California Energy Commission (CEC), California Power Authority, and California Public Utilities Commission (CPUC) adopted an Energy Action Plan (EAP) to establish goals for California's energy future and a means to achieve these goals. EAP II supports and expands on the commitment of State agencies to cooperate and reflect on the energy actions since original EAP adoption. EAP II includes a coordinated implementation plan for state energy policies that have been articulated through Executive Orders, instructions to agencies, public positions, and appointees' statements; CEC's integrated Energy Policy Report; CPUC and CEC processes; agencies' policy forums; and legislative direction.

Integrated Energy Policy Report

The CEC is responsible for preparing Integrated Energy Policy Reports, which identify emerging trends related to energy supply, demand, conservation, public health and safety, and the maintenance of a healthy economy. The CEC's 2019 Integrated Energy Policy Report covers a broad range of topics, including decarbonizing buildings, integrating renewables, energy efficiency, energy equity, integrating renewable energy, and the California Energy Demand Forecast, in an effort to leverage California's clean electricity system to decarbonize, or remove carbon from other portions of the state's energy system. The Integrated Energy Policy Report discusses the State's policy goal of becoming 100 percent zero-carbon by 2045.

Renewable Portfolio Standards

As most recently amended by SB 350, the Renewable Portfolio Standard requires an annual increase in renewable energy generation by utility providers equivalent to at least 33 percent by 2020 and 50 percent by 2050 (Interim Renewable Portfolio Standards targets are also set between 2020 and 2030).

State Vehicle Standards

The CARB Advanced Clean Cars program for passenger vehicles and light trucks serves to reduce petroleum consumption by increasing the operating efficiencies of vehicles and accelerating the penetration of plug-in hybrid and zero-emission vehicles in California. CARB has also adopted regulations that enhance the operating efficiencies of various types of construction equipment. While such regulations primarily are adopted to reduce air pollution, co-benefits in the form of reduced petroleum consumption are common.

Pavley Fuel Efficiency Standards (AB 1493)

AB 1493 was required by CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. AB 1493 is intended to reduce GHGs from new cars by 34 percent from 2016 levels by 2025. The new rules are intended to clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric vehicles (EV), newly emerging plug-in hybrid EVs, and hydrogen fuel cell vehicles.

Sustainable Communities Strategy

The Sustainable Communities and Climate Protection Act of 2008, or Senate Bill 375, coordinates land use planning, regional transportation plans, and funding priorities to help California meet its GHG emissions reduction mandates. As specifically codified in Government Code Section 65080, SB 375 requires the MPO relevant to the project area (in this case, the Southern California Association of Governments) to include a Sustainable Communities Strategy (SCS) in its Regional Transportation Plan (RTP). While the main focus of the SCS is to plan for growth that will ultimately reduce GHG emission,

the strategy is also a part of a bigger effort to address many other development issues within the general vicinity, including transit and vehicle miles traveled (VMT).

California Assembly Bill 32 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006. AB 32 requires that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction will be accomplished through an enforceable statewide cap on GHG emissions that will be phased in starting in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources.

In November 2007, CARB completed its estimates of 1990 GHG levels. Net emission 1990 levels were estimated at 427 million metric tons (MMT). Accordingly, 427 million $MTCO_2e$ equivalent was established as the emissions limit for 2020.

Senate Bill 32

Senate Bill 32 (SB 32) was enacted in 2016, a decade after AB 32. SB 32 extended the horizon year of the state's codified GHG reduction planning targets from 2020 to 2030, requiring California to reduce its GHG emissions to 40 percent below 1990 levels by 2030. SB 32 allows CARB to enact further regulations to reduce emissions.

Senate Bill 375

Senate Bill 375 (SB 375) directs CARB to set regional targets for reducing greenhouse gas emissions. The law establishes a "bottom-up" approach to ensure that cities and counties are involved in the development of regional plans to achieve those targets. SB 375 builds on the existing framework of regional planning to tie together the regional allocation of housing needs and regional transportation planning in an effort to reduce greenhouse gas emissions from motor vehicle trips.

SB 375 sets up a collaborative process between MPOs and the Air Resources Board to establish GHG emissions targets for each region in the state. SB 375 requires each MPO to include a "Sustainable Communities Strategy" (SCS) in the regional transportation plan that demonstrates how the region will meet the GHG emission targets. The Senate Bill requires that decisions relating to the allocation of transportation funding be consistent with the SCS. SB 375 also creates CEQA streamlining incentives for projects that are consistent with the regional SCS.

Low Carbon Fuel Standard

Applicability of the Low Carbon Fuel Standard applies to any transportation fuel that is sold, supplied, or offered for sale in California, and to any person who, as a fuel reporting entity is responsible for reporting a transportation fuel in a calendar year. Requires carbon content of fuel sold in California to be less than 10 percent by 2020.

Statewide Retail Provider Emissions Performance Standards (SB 1368)

Requires energy generators to achieve performance standards for GHG emissions.

Water Conservation in Landscaping Act (AB 1881)

AB 1881 requires local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. New development projects that include landscape areas of 500 square feet to implement more efficient irrigation systems; incentives for graywater use; improvements in stormwater capture; limiting the portion of landscapes that can be planted with high water use plants; and includes reporting requirements for local agencies.

Regional and Local

Blythe Municipal Code

The City's Municipal Code includes provisions that encourage the use of non-renewable energy and of energy efficient appliances and building design standards. This is indicated in Chapter 15.58 of the Municipal Code. Chapter 15.58, California Energy Code, adopts the State's Energy Code (Title 24 Part 6) and requires that new development implement energy efficiency building practices.

Blythe General Plan

Circulation

The Circulation Element of the General Plan provides goals and policies for Blythe, in order for the City to create a balanced transportation system that serves bicyclists and pedestrians as well as motor vehicles. The General Plan provides for new routes in particular developed portions of the City and expansion of capacity and efficiency of the existing system. The General Plan also provides ways to reduce auto-dependence in the core of the City by facilitating use of alternative modes of travel. Policies established in the Circulation Element of the General Plan that are applicable to the proposed project include:

1. Develop a system of sidewalks and bikeways that promote safe walking and bicycle riding for transportation and recreation.

14. Promote safe and efficient vehicle circulation.

16. Make efficient use of existing transportation facilities, and, through the arrangement of land uses, improved alternative modes, and provision of more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle miles traveled.

23. Provide adequate circulation and off-street parking and loading facilities for trucks and facilitate intermodal goods delivery.

Open Space and Conservation

The Open Space and Conservation Element of the Blythe General Plan is intended to preserve and enhance the natural environment and ensure that long-term growth does not adversely affect environmental resources. This Element summarizes the key general plan policies that support the City's goals for air quality, biological resources, water resources, open space, agricultural resources, mineral resources, cultural resources, and energy resources.

In this Element's discussion of air quality in the City, the General Plan establishes implementation plans to reduce the impact of General Plan buildout on air quality. One implementation plan states that all new construction shall comply with the energy efficiencies mandated by Title 24 construction requirements. New facilities will be substantially more energy efficient than the facilities they replace or existing units, even at higher densities.

Regarding energy resources, the Open Space and Conservation Element notes that the City's electricity provider's (SCE) infrastructure includes high voltage transmission lines that traverse the City providing power to the City and surrounding area and that the load planning and forecasting conducted by SCE estimate the demand for electric service within the City's planning area to serve future and anticipated growth. Power is acquired from outside sources, and facilities are designed before the need is present. Per the General Plan, the City of Blythe does not foresee any difficulties in obtaining adequate power from SCE for meeting demands to provide electricity to the City for future growth.

At the time the Blythe General Plan was written, mass production of solar energy was not considered economically feasible in the City, however, passive and active solar energy systems are economically feasible at the utility level. Wind and geothermal energy sources are contributors to the regional electrical grid system.

Regarding energy resources, the Open Space and Conservation Element establishes the following guiding policies for the City:

25. Policy: Conserve scarce or nonrenewable energy resources.
26. Policy: Promote energy efficiency in new subdivisions and in building design and encourage use of alternative building materials.

4.5.4 Project Impact Analysis

Thresholds of Significance

The significance criteria used to evaluate the project impacts on energy are based on Appendix G of the CEQA Guidelines (14 CCR 15064). According to Appendix G, a significant impact would occur if development of the project would do any of the following:

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Methodology

The project would be required to comply with all mandates imposed by the State of California and the Mojave Desert Air Quality Management District (MDAQMD). Those that are applicable to the project and that would assist in the reduction of energy consumption, and thus, greenhouse gas emissions include:

- Global Warming Solutions Act of 2006 (Assembly Bill 32)
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (Senate Bill 375)
- Pavley Fuel Efficiency Standards (AB 1493), which establish fuel efficiency ratings for new vehicles
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction.
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances.
- Title 17 California Code of Regulations (Low Carbon Fuel Standard [FCFS]). Requires carbon content of fuel sold in California to be less than 10 percent by 2020.
- California Water Conservation in Landscaping Act of 2006 (AB 1881), which requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscaping.
- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions.
- Renewable Portfolio Standards (SB 1078 – also referred to as RPS), which requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent by 2010 and 33 percent by 2020.
- California Global Warming Solutions Act of 2006 (SB 32), which requires the state to reduce statewide emissions to 40 percent below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15.

The project's estimated annual consumption of electricity was provided by SoCal West Coast Electric Company, who was contracted to prepare the required SCE engineering package (**Appendix F.1**). The SCE engineering package included the project information sheet, site plan and SCE equipment locations, building and project electrical load summary, phasing plan, and preliminary planning drawings.

The analysis in this section is also derived from the project-specific *Greenhouse Gas Analysis* (referred to as "GHG Analysis" herein) and the California Estimator Model (CalEEMod) Version 2020.4.0 Modeling

Data, provided by Urban Crossroads, Inc. CalEEMod is a Statewide land use emissions computer model designed to provide a uniform platform to quantify potential criteria pollutant and greenhouse gas (GHG) emissions associated with both construction and operations from land use projects. Fuel consumption by construction equipment was calculated based on the equipment mix and usage factors provided in the CalEEMod construction output files. Fuel consumption from construction worker and vendor trucks was calculated using the trip rates and distances provided in the CalEEMod construction output files. Total vehicle miles traveled (VMT) was then calculated for each type of construction-related trip and divided by the corresponding miles per gallon factor using the USEPA's Greenhouse Gas Equivalency Calculator. The GHG Analysis is included as **Appendix I** and discussed in **Section 4.7, *Greenhouse Gas Emissions,*** of this Draft EIR. Daily Trip Generation and VMT used in the analysis were also based on the inputs from the *Edelweiss Sustainable Farms Traffic Study* and the *VMT Analysis*, both provided by Urban Crossroads, Inc. (**Appendix M.1** and **M.2**). Based on the VMT, gasoline and diesel consumption rates were calculated for project operation.

The project is anticipated to begin operations in 2023. Project-related construction of the site is categorized in the GHG Analysis to occur in the following order: Site Preparation; Grading; Building Construction; Paving; and Architectural Coating. For purposes of calculating project emissions, the modeling in the GHG Analysis took into account a tentative construction schedule commencing in early 2022 and lasting through August 2023 as being representative of a "worst-case" analysis scenario. The modelling determined that if construction activities occurred after the initially assumed start date, the modeling would remain valid and emission factors would be expected to decrease due to emission regulations becoming more stringent. Therefore, the construction durations displayed in **Table 4.5-1** primarily serve as factors for modeling and emissions analysis, rather than fixed dates for actual construction, which will occur at a subsequent date. Should construction occur over any longer period of time, reduced overall emissions would be expected because emissions regulations are expected to become more stringent over time. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required by CEQA Guidelines.

Table 4.5-1 Edelweiss Sustainable Farms Construction Duration
(For Modeling and Analysis Purposes)

Phase	Start Date	End Date	Days
Site Preparation	01/01/2022	01/14/2022	10
Grading	01/29/2022	03/04/2022	35
Building Construction	03/05/2022	08/04/2023	370
Paving	03/01/2023	08/04/2023	113
Architectural Coating	03/01/2023	08/04/2023	113

Source: Table 3-1: Construction Duration, Hobosonway Cannabis Greenhouse Gas Analysis, Urban Crossroads, December 2021.

In order to determine the project's impacts on petroleum demand, Urban Crossroads ran multiple CalEEMod models which included:

- Annual Construction Emissions
- Proposed Project Operational Emissions

The Proposed Project Operational model includes the operation of the project at total project buildout.

The project will be required to submit to the appropriate agencies discussed in this section for review and approval of on-site design for circulation, building standards and utility installation to ensure compliance with Title 24 requirements. The project will be subject to the 2019 version of Title 24, which became effective on January 1, 2020. The CEC anticipates that compliance with Title 24 standards will result in residential buildings using approximately 53 percent less energy and nonresidential buildings using approximately 30 percent less. Implementation of energy conservation measures discussed in this and other sections of this Draft EIR will therefore help to reduce the impacts on energy resources.

Project-related energy consumption, via electricity and petroleum, is analyzed below in the discussion of project impacts.

Project Design Features

Approval of the proposed project will be conditioned on the project including the following project design features, in compliance with Title 24 Park 6 energy efficiency standards and CALGreen standards:

- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (5.303.3.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush (5.303.3.2.1). The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (5.303.3.2.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (5.303.3.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (5.303.3.3.2).
    - Faucets and fountains. Nonresidential lavatory faucets shall have a maximum flow rate of note more than 0.5 gallons per minute at 60 psi (5.303.3.4.1). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (5.303.3.4.2). Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute (5.303.3.4.3). Metering faucets shall not deliver more than 0.20 gallons per cycle (5.303.3.4.4). Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle (5.303.3.4.5).

- Outdoor potable water use in landscaped areas. Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent (5.304.1).
- Installation of High Efficiency Lighting
- 7,000 square feet of solar panels on each building, 1 watt per square foot
- The project also proposes the use of emergency back-up generators for each building. The back-up generators would generate 30 percent of demand load to keep the climate control (only) at a minimum. The continued climate control from the back-up generators will sustain plant survival during a power outage.

The project's compliance with California Regulations and Building Codes such as Title 20 and 24 of the California Code of Regulations (CCR), including Appliance Efficiency Regulations, Energy Efficiency Standards for Residential and Nonresidential Buildings, and Green Building Standards Code (CALGreen) will lower energy consumption and GHG emissions. Because these features/attributes are integral to the project, and/or are regulatory requirements, they are not considered to be mitigation measures. However, per the GHG Analysis, in order to produce a conservative analysis no numeric credit has been taken for their implementation of the above project features.

The project as proposed with exceed Title 24 regulations and the implementation of the PDFs listed above at the project site would reduce operational electricity use by approximately 5 percent. This is analyzed in greater detail in the subsequent discussions.

In addition to the energy-saving project design features, the proposed project would incorporate the following strategies to reduce automobile trips and the distance traveled per service population, to reduce VMTs, and thus, petroleum fuel consumed. Because these features/attributes are integral to the project, and/or are regulatory requirements, they are not considered to be mitigation measures. Per the VMT Analysis, the following VMT reduction strategies may be considered for the project:

- Designated Employee Transportation Coordinator (ETC)
    - Role of the ETC is to provide education and point of contact for commute related questions and commuter benefits.
- Bicycle End-Trip Facilities
    - On-site secure bike parking, storage lockers, showers
- Carpool and Vanpool Ride-Match Services
    - Waze Carpool and other carpool/vanpool ride-matching services
- Preferential Carpool Parking
    - Provide designated carpool parking spaces that encourage the use of carpooling instead of single occupancy driving.
- Compressed Work Weeks

- Provide for compressed work weeks such as a 4/10 work schedule reducing the need for commuting by one day per week.

Please consult GHG Analysis (**Appendix I**), **Section 4.7, *Greenhouse Gas Emissions,* Section 4.12, *Transportation***, and the VMT Analysis (**Appendix M.2**) of this Draft EIR for a complete list of the proposed project design features and strategies. Implementation of energy conservation measures discussed in this and other sections of this Draft EIR will help to reduce the impacts on energy resources.

Project Impacts

a. Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation

As discussed previously, the project site currently operates as agricultural land. Electricity will be provided to the project site by Southern California Edison (SCE).

Construction

During construction of the proposed project, energy resources would be consumed in the form of electricity and petroleum. As discussed below, construction activities, including the construction of new buildings and facilities, typically do not involve the consumption of natural gas. Electricity consumed is associated with the conveyance of water used for dust control, and on a limited basis, powering lights, electronic equipment, or other construction activities necessitating electrical power. Petroleum-based fuels are associated with the use of off-road construction vehicles and equipment on the project site, and construction worker travel to and from the site.

Electricity

During construction of the proposed project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, and electronic equipment. Electricity consumed for onsite construction trailers, which are used by managerial staff during the hours of construction activities and other construction activities necessitating electrical power would be provided by SCE. As displayed in **Table 4.5-2**, a total of approximately 1,988.2 kWh of electricity is anticipated to be consumed during construction. This is based on the water for dust control, which is calculated from the total days of grading, the acreage disturbed on the project site along with water usage factor per day and a water supply electricity intensity factor. This is further explained in **Table 4.5-2, *Summary of Electricity Use During Construction***, which outlines the amount of electricity consumed during construction, as determined by the CalEEMod calculations.

Table 4.5-2 Summary of Electricity Use During Construction

Construction Phase	Days Grading	Acres Graded Per Day	Total Acres Graded	Electricity Consumed (kWh)
Site Preparation	10	3.384	33.84	994.1
Grading	35	0.97	33.84	994.1
			Total Electricity Consumed	**1,988.2**

Note: Electricity Consumed is determined by: Days Grading x Acres (acres disturbed during grading) x 3,020 gallons per acre per day (Air and Waste Management Association, 1992) x 0.009727 kWh/gallons (CalEEMod default for Mojave Desert Air Basin)].

The electricity demand at any given time would vary throughout the construction period based on construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 0.037 percent of the project's estimated annual operational demand, which, as discussed below, would be within the supply and infrastructure service capabilities of SCE. The percentage is derived by taking the total amount of electricity usage during construction (1,988.2 kWh) and dividing that number by the total amount of electricity during operation (5,365,988 kWh) to obtain 0.037 percent.

Transportation Energy

Petroleum would be consumed throughout construction of the project. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, while VMT associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty equipment used for project construction would rely on diesel fuel. Construction workers would travel to and from the project site throughout the duration of construction. It is assumed that construction workers would travel to and from the project property in gasoline-powered passenger vehicles. There are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or use of equipment that would not conform to current emissions standards (and related fuel efficiencies).

Heavy-duty construction equipment of various types would be used during each phase of construction of the project. CalEEMod was used to estimate construction equipment usage. Fuel consumption from construction equipment was estimated by converting the total CO2 emissions from each construction phase (i.e., site preparation, grading, building construction, paving, and architectural coating) to gallons using the conversion factors shown in the tables provided.

Table 4.5-3, *Construction Worker Gasoline Demand*, illustrates the demand of gasoline fuel for construction worker trips to and from the site during each construction phase, and phase of development. Construction worker gasoline demand during each phase of development equals a total of 101,019 gallons of gasoline fuel.

Table 4.5-3 Construction Worker Gasoline Demand

Phase	Const. Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
1	**Site Prep.**	10	18	16.8	3,024	899.4	8.89*	101.2
	Grading	35	20	16.8	11,760	3,497.5	8.89	393.4
	Building Const.	370	457	16.8	2,840,712	835,411	8.89	93,972
	Paving	113	15	16.8	28,476	8,243.1	8.89	927.2
	Arch. Coating	113	91	16.8	172,754.4	50,008	8.89	5,625.2
Total Construction Gasoline Demand								**101,019**

*https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Table 4.5-4, *Construction Vendor Diesel Demand*, illustrates the demand of diesel fuel for construction vendor trips to and from the site during each construction phase, and phase of development. These trips are associated with the delivery of construction materials during the building construction phase. Construction vendor demand during each phase of development equals a total of 56,226.6 gallons of diesel fuel.

Table 4.5-4 Construction Vendor Diesel Demand

Phase	Const. Phase	Days	Trips	Miles	VMT	KgCO2e	Kg/CO2/Gallon	Gallons
1	**Site Prep.**	10	0	0	0	0	10.18*	0
	Grading	35	0	0	0	0	10.18	0
	Building Const.	370	179	6.60	437,118	572,387.4	10.18	56,226.6
	Paving	113	0	0	0	0	10.18	0
	Arch. Coating	113	0	0	0	0	10.18	0
Total Construction Diesel Demand								**56,226.6**

*https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Table 4.5-6, *Construction Equipment Diesel Fuel Demand*, displays the demand of diesel fuel for construction vehicles on-site during the various construction phases. Construction equipment diesel demands for each phase of project development equals a total of 69,603.4 gallons of diesel fuel.

Table 4.5-5 Construction Equipment Diesel Demand

Phase	Const. Phase	Days	Equipment Units	KgCO2e	Kg/CO2/Gallon	Gallons
1	**Site Prep.**	10	7	16,856.3	10.18*	1,655.8
	Grading	35	8	96,136.8	10.18	9,443.7
	Building Const.	370	9	462,238.7	10.18	45,406.6
	Paving	113	6	114,066.6	10.18	11,205
	Arch. Coating	113	1	19,263.3	10.18	1,892.3
Total Construction Equipment Diesel Demand						**69,603.4**

*https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references
https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator

Overall, the project is estimated to consume approximately 101,019 gallons of gasoline and 125,830 gallons of diesel fuel during the project's construction phases. In total, the project will consume approximately 226,849 gallons of petroleum between years 2022 to 2023. Petroleum use is necessary to operate construction equipment.

Construction Energy Consumption Conclusion

As shown in **Table 4.5-6*, Summary of Energy Use During Construction***, a total of 1,988.2 kilowatt-hours (kWh) of electricity, 125,830 gallons of diesel fuel, and 101,019 gallons of gasoline are estimated to be consumed in total during the construction of the project. Construction of the project is anticipated to be complete in 2023 (see **Table 4.5-1, *Edelweiss Sustainable Farms Construction Duration)***.

Table 4.5-6 Summary of Energy Use During Construction

Fuel Type	Units	Total Project Energy Use
Electricity	kWh	1,988.2
Diesel	Gallons	125,830
Gasoline	Gallons	101,019

Notes: Electricity for the project is total construction usage. Mobile gasoline and diesel usage were calculated using the figures provided in the CalEEMod model.

The energy used during the construction of the project would be limited to the development of the project and would not require long-term petroleum use. Additionally, there are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or use of equipment that would not conform to current emissions standards (and related fuel efficiencies). Overall, project construction would not consume petroleum in a wasteful or inefficient manner and impacts will be less than significant.

Operation

Electricity

The project will be required to connect to the existing Southern California Edison electric facilities (power lines) located north of the project site, along Hobsonway. Construction of the project's electrical connection would occur in the existing right-of-way. SoCal West Coast Electric provided information regarding project-specific electricity consumption during operation of the cannabis cultivation site. According to SoCal West Coast Electric, the project buildings are expected to have a connected load of approximately 28.9 MW (peak capacity) with a load diversity of 75 percent. However, it could be assumed that the actual operational demand or usage (i.e., average load over time with seasonal and operational savings) would be 60 percent of peak capacity and further reduced by 5 percent by electricity generated from the rooftop solar panels. Overall, the project is anticipated to consume 139,284 MWh annually. The project would incorporate several project design features (PDFs) directed at minimizing energy use. These measures include installing 7,000 square feet of photovoltaic (PV) systems on each of

the buildings, where each square foot equals one watt. The project will also apply energy efficient design building shells and building components, such as windows, roof systems, electrical lighting systems, and heating, ventilating and air conditioning systems to meet Building Code standards in effect at the time development occurs, estimated to result in at least 30 percent increase in energy-efficiency.

Additional project design features include:

- Installation of water-efficient plumbing fixtures
- Use of drought-tolerant plants in landscape design
- Outdoor potable water uses in landscaped areas.

These project design features were not accounted for in the CalEEMod calculations, however, their implementation would result in reduced electricity consumption.

The SCE planning area used approximately 3,959.5 gigawatt hours (GWh) of electricity in the commercial sector in 2020. According to the CEC's Demand Analysis Office, SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh (which equates to 129,000,000 MWh) annually by 2030. Based on the project's estimated annual electrical consumption of 139,284 MWh, the project would account for approximately 0.11 percent of SCE's total estimated demand in 2030.

In addition to the listed PDFs, the project will be required to connect to the existing off-site SCE electrical infrastructure to provide electricity to the site. Existing overhead distribution power poles are located north of the project, on the north side of Hobsonway, and along the western project boundary. Coordination with SCE will allow the project to extend electrical facilities to serve the site, under the developmental conditions of service, including requiring the project to bear all costs associated with construction of the utility work, and to comply with as all requirements of the utility provider during each phase of project development. Development of new electrical infrastructure will be required as part of the project after the development of the first building. The project will be required to build a circuit bank at an existing substation for the operation of buildings 2 through 12. The purpose of the circuit bank is to provide electricity to the project only. The facility will be designed and constructed to the design standards of and in coordination with SCE. The proposed improvements (i.e., circuit bank) must be approved by SCE to ensure the design standards are met, and will be limited to improvements within existing SCE facilities and disturbed rights-of-way. The project's connection to SCE's infrastructure will not result in a significant increase in energy demand because energy codes established by the State and implemented by SCE will be applied to the project to reduce energy consumption and increase energy efficiency. On May 3, 2022, SCE provided a will serve letter stating that SCE will serve the project's electrical requirements per the CPUC and FERC tariffs. The will serve letter is included as **Appendix F.2** in this DEIR.

SCE also analyzes their existing facilities and capacity to support the population and future growth within the service area in order to ensure reliable service. Additionally, SCE continues to invest in alternative and renewable energy sources and storage of renewable energy, to provide alternative energy to the service area. Based on the project's implementation of PDFs and SCE's review of the project, with the project's connection to the SCE infrastructure, it is anticipated that SCE's existing and planned electricity capacity and electricity supplies would be sufficient to support the project's demand and would not result in a significant increase in energy demand.

While the project would result in a long-term increase in demand for electricity over existing project site use, the project would be required to comply with Title 24 and CALGreen requirements related to energy efficiency. Compliance with energy efficiency codes and regulations will be required during the operation of the project. Implementing rooftop solar and energy-efficient design features will both generate electricity onsite, and reduce electricity consumption, respectively. Further, submittal, review, and approval of project plans through the City and SCE would ensure future electricity demand will comply with all applicable requirements, and will not exceed SCE's service capacity. Impacts will be less than significant.

Transportation Energy

The consumption and use of petroleum-based fuels related to vehicular travel to and from the project site are anticipated during operation of the project. The GHG Analysis calculated the project's estimated annual VMT using CalEEMod. CalEEMod calculated the annual project VMT at project buildout. Project operational VMTs within each land use are depicted in the table below.

Table 4.5-7 Proposed Project Operational VMT

	Annual VMT
Land Use	**Project Buildout**
General Office Building	767,474
Manufacturing	7,729,880
Parking Lot	--
Total Annual VMT	**8,497,354**

Note: Project Buildout is the cumulative annual VMT value assuming total project buildout.

Per the CalEEMod calculations, the average daily trip (ADT) rate will total 2,278.75 on the weekdays, 2,278.75 on Saturdays, and 2,278.75 on Sundays. CalEEMod assumes 92.5 percent of VMT burns gasoline, while the remaining 7.5 percent burn diesel. Project operation would have an annual gasoline demand of 276,045.4 gallons and an annual diesel demand of 19,545.8 gallons, as displayed in **Table 4.5-11, *Proposed Project Operational Annual Petroleum*.** The ADT rate was provided by CalEEMod, which provides estimates for emissions. The ADT utilized in this ***Energy Resources*** section may vary from the ADTs calculated in the project-specific Traffic Study (**Appendix M.1**), which utilizes RIVTAM modeling for

ADT and VMTs. RIVTAM considers interaction between different land uses based on socio-economic data such as population, households, and employment, where CalEEMod uses average daily trips, which is used when calculating annual emissions from a project. Additionally, CalEEMod provides mobile emission values (KgCO2e) which is used to calculate gallons, therefore, CalEEMod VMT values were utilized.

Table 4.5-8 Proposed Project Operational Annual Petroleum

	Annual VMT	KgCO2e	Kg/CO2/Gallon	Annual Gallons
Gasoline	7,860,052.45	2,454,043.7	8.89	276,045.4
Diesel	637,301.55	198,976.5	10.18	19,545.8
			Total Annual Petroleum	**295,591.2**

Based on the CalEEMod calculations provided for the project, operation of the project will generate 8,497,354 VMTs annually. Annually, the project would consume approximately 295,591.2 gallons of petroleum. By comparison, the Southern California Association of Governments (SCAG) projects that the SCAG area would consume approximately 7 billion gallons of total petroleum fuel annually in 2045. Furthermore, California consumes approximately 26 billion gallons of petroleum per year. The anticipated increase in consumption associated with one year of the project operation is 0.004 percent of petroleum use in the SCAG area, and 0.0011 percent of the Statewide use.

Over the lifetime of the project, the fuel efficiency of vehicles in use is expected to increase, as older vehicles are replaced with newer more efficient models. Therefore, it is expected that the amount of petroleum consumed due to the vehicle trips to and from the project site during operation would decrease over time. California's Senate Bill 350 was established in 2015 to reduce petroleum use by 50 percent by the year 2030, compared to 2015 consumption. This is achieved through advancement of technology, which includes the use of plug-in hybrid and zero emission vehicles in California. With the foregoing, operation of the project is expected to use decreasing amounts of petroleum over time.

In addition, the following VMT reduction strategies will be considered for the project to meet Blythe General Plan Policy 3 which requires developments to provide adequate bicycle parking facilities:

- Designated Employee Transportation Coordinator (ETC)
    - Role of the ETC is to provide education and point of contact for commute related questions and commuter benefits.
- Bicycle End-Trip Facilities
    - On-site secure bike parking, storage lockers, showers
- Carpool and Vanpool Ride-Match Services
    - Waze Carpool and other carpool/vanpool ride-matching services
- Preferential Carpool Parking
    - Provide designated carpool parking spaces that encourage the use of carpooling instead of single occupancy driving.

- Compressed Work Weeks
    - Provide for compressed work weeks such as a 4/10 work schedule reducing the need for commuting by one day per week.

Providing incentives for carpooling and employees riding their bicycles will allow employees to reduce the number of vehicles driving each day and to participate in other forms of transportation, lowering vehicle miles traveled created by the project.

The project would implement other General Plan policies that require developments to consider safe and efficient vehicular and pedestrian travel, as well as promoting alternative modes of transportation in order to reduce vehicle miles traveled (VMT):

1. Develop a system of sidewalks and bikeways that promote safe walking and bicycle riding for transportation and recreation.

14. Promote safe and efficient vehicle circulation.

16. Make efficient use of existing transportation facilities, and, through the arrangement of land uses, improved alternative modes, and provision of more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle miles traveled.

23. Provide adequate circulation and off-street parking and loading facilities for trucks and facilitate intermodal goods delivery.

Additionally, Policy 12 of the Air Quality Element encourages mixed-use and pedestrian-oriented development and circulation systems that promote use of alternatives to the automobile for transportation, including bicycles and bus transit, along with carpooling.

The project will also construct a bus stop at the northwest side of the property as required by the Palo Verde Transit Agency (PVTA). The bus stop is proposed to be constructed during phase 3 of the project, or when warranted by PVTA. The development of the bus stop north of the project site would provide alternative transportation options for project employees, therefore, reducing the number of vehicles on the road. Therefore, the project will comply with the applicable policies within the Circulation Element of the Blythe General Plan.

In addition, the implementation of a multi-modal transportation system, the Environmental Protection Agency (EPA) and the California Air Resources Board (CARB) require increased vehicle fuel efficiency standards to reduce vehicle emissions. Increased fuel efficiency also means that less fuel energy is required per mile traveled. Although the project will result in a direct increase in VMTs, the project will not interfere with increased full efficiency standards and will not result in wasteful, inefficient, or unnecessary consumption of transportation energy resources during operation. Impacts will be less than significant.

Operational Energy Consumption

No adverse effects to nonrenewable energy resources are anticipated with the development of the proposed project. Furthermore, the project would not result in the use of excessive amounts of fuel or electricity and would not result in the need to develop additional sources of energy. As shown in **Table 4.5-9, *Summary of Annual Energy Use During Operation***, the project's new energy demand would be approximately 139,284 MWh of electricity per year and 295,591 gallons of petroleum fuel per year. The project's buildout outputs are displayed in the table below.

Table 4.5-9 Summary of Annual Energy Use During Operation

Source	Units	Project Buildout
Electricity Total	MWh/yr	139,284
Petroleum Total	Gallons	295,591.2

Notes: MWh/year = Megawatt-hours per year; Electricity for the project is total operational usage. Mobile gasoline and diesel usage were calculated using the figures provided in the CalEEMod calculations.

Conclusion

The project will design building shells and building components, such as windows, roof systems and electrical and lighting systems to meet Building Code standards in effect at the time development occurs. These design features would result in at least 30 percent less energy used for non-residential buildings. These measures will ensure project-related operational energy use is reduced by implementing building shells and components that comply with building code standards.

The project would increase demand for energy in the project area and in the service areas of SCE. The proposed project would also increase the petroleum demand during construction and operation of the site. However, based on the findings described above, project construction and operation are not anticipated to result in potentially significant impacts due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation. Impacts will be less than significant.

b. Conflict with or obstruct a state or local plan for renewable energy or energy efficiency

Consistency Analysis

Title 24

Title 24's Building Energy Efficiency Standards, is designed to reduce wasteful and unnecessary energy consumption in newly constructed and existing buildings. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. In December 2018, the California Energy Commission (CEC) adopted the 2019 Building and Energy Efficiency Standards with the effective date beginning January 1, 2020.

Title 24 also includes Part 11, known as California's Green Building Standards (CALGreen), which instituted mandatory minimum environmental performance standards for all ground-up new construction of commercial, low-rise residential, and State-owned buildings, as well as schools and hospitals. The 2019 CALGreen standards became effective on January 1, 2020.

The project will be required to meet or exceed the standards of the most recent Title 24 standards, consistent with the City's adoption of that Code. In addition, the proposed project will install water-efficient plumbing fixtures, water-efficient irrigation systems with smart sensor controls for common area landscape irrigation, and use drought-tolerant plants in landscape design, as well as install photovoltaic (PV) systems, Energy Star appliances. The conformance with Title 24 and installation and use of these fixtures will reduce wasteful and unnecessary energy consumption for the proposed project.

Blythe General Plan

Open Space and Conservation

The Open Space and Conservation Element of the Blythe General Plan is intended to preserve and enhance the natural environment and ensure that long-term growth does not adversely affect environmental resources. This Element summarizes the key general plan policies that support the City's goals for air quality, biological resources, water resources, open space, agricultural resources, mineral resources, cultural resources, and energy resources.

Regarding energy resources, the Open Space and Conservation Element establishes the following guiding policies for the City:

25. Policy: Conserve scarce or nonrenewable energy resources.

26. Policy: Promote energy efficiency in new subdivisions and in building design and encourage use of alternative building materials.

The project is not anticipated to result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources during construction or operation. Additionally, the policies related to energy resources will be implemented in project development through the use of solar panels on each building, and complying with relevant state standards (i.e., Title 24).

With the implementation of the regulatory requirements and design features, the project is compliant with Policies 25 and 26 of the Open Space and Conservation Element of the Blythe General Plan, which requires the conservation of energy resources, and the promotion of energy efficient building design.

Circulation

As previously stated in discussion a) above, the project would implement applicable polices established in the Blythe General Plan. These policies require developments to consider safe and efficient vehicular

and pedestrian travel, as well as promoting alternative modes of transportation in order to reduce vehicle miles traveled (VMT). The policies include:

2. Develop a system of sidewalks and bikeways that promote safe walking and bicycle riding for transportation and recreation.

14. Promote safe and efficient vehicle circulation.

16. Make efficient use of existing transportation facilities, and, through the arrangement of land uses, improved alternative modes, and provision of more direct routes for pedestrians and bicyclists, strive to reduce the total vehicle miles traveled.

23. Provide adequate circulation and off-street parking and loading facilities for trucks and facilitate intermodal goods delivery.

The project will provide transportation facilities for motorists, cyclists, and pedestrians throughout the site. The project also proposes safe vehicular and pedestrian circulation for the future employees. The project also proposes potential VMT reduction strategies, such as having a designated employee transportation coordinator (ETC), bicycle end-trip facilities, carpool and vanpool ride-matching services, preferential carpool parking, and compressed work weeks. Therefore, the project will comply with the applicable policies within the Circulation Element of the Blythe General Plan.

4.5.5 Cumulative Impacts

The cumulative analysis for the project site considers the geographic context of SCE's service area as well as the Mojave Desert Air Basin boundary. Growth within these geographies, partially attributable to the State's emphasis on housing development, is anticipated to increase the demand for electricity and transportation energy, as well as the need for energy infrastructure, such as new or expanded facilities.

Electricity

Buildout of the project, related projects, and additional forecasted growth in SCE's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. SCE's planning area consumed approximately 3,959.5 GWh of electricity in 2020. According to the CEC's Demand Analysis Office, SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh (which is 129,000,000 MWh) annually by 2030. Based on the project's estimated annual electrical consumption of 139,284 MWh, the project would account for approximately 0.11 percent of SCE's total estimated demand in 2030.

The proposed project and other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate energy design features, as required. Increased efficiency, both in construction materials and fixture design, will apply not only to the proposed project, but to all

projects developed within the service areas of local energy providers and fuel suppliers. Therefore, the project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.

Buildout of the Blythe General Plan would result in increased demand for electricity in SCE's service area. SCE is committed to helping the state reduce greenhouse gas emissions by integrating more renewables while helping balance cost and reliability with the efficient traditional sources. SCE has adequate policies, programs, and projects in place to provide energy to their users, including the proposed project, for the foreseeable future. The SCE website provides a list of infrastructure projects proposed within the service area in order for the provider to continue providing electricity to the service area. There are currently four infrastructure projects within Riverside County.

Per SCE's 2021 Circuit Reliability Review for the City of Blythe, SCE plans to strengthen and modernize the electrical grid by updating underground cables, poles, switches, and transformers; connecting renewables, installing new substations, and updating line; updating the grid for new technology impacts; and supporting energy storage, electric vehicles and renewable energy. In doing this, SCE's goal is to support safe, reliable, affordable and clean energy for the service area.

In order to achieve the State's goal of 100 percent carbon neutrality, SCE prepared the Pathway 2045 planning document in November 2019. Pathway 2045 provides key steps California must take to reach carbon neutrality, such as decarbonizing the electric sector, electrify transportation and buildings, use low carbon fuels, and sink remaining carbon. To meet evolving customer needs and improve the customer experience, SCE continues to develop new customer-facing programs to promote clean energy and energy efficiency offerings for all of its customer classes.

The SCE planning area used approximately 3,959.5 gigawatt hours (GWh) of electricity in the commercial sector in 2020. According to the CEC's Demand Analysis Office, SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh (which is 129,000,000 MWh) annually by 2030. Based on the project's estimated annual electrical consumption of 139,284 MWh, the project would account for approximately 0.11 percent of SCE's total estimated demand in 2030. On May 3, 2022, SCE provided a will serve letter stating that SCE will serve the project's electrical requirements per the CPUC and FERC tariffs (**Appendix F.2**). Although the demand for electricity will continue to increase with build out of projects throughout the City, SCE's planning, along with compliance with applicable energy reduction requirements, assures that the impacts associated with these cumulative projects will not be cumulatively considerable.

The proposed connection to SCE's existing electrical facility will provide electricity to the project site only and will not facilitate additional development beyond that otherwise allowed under the General Plan. Additionally, SCE has established a rate structure that accommodates growth through the extension of facilities and implements energy reducing strategies and renewable energy alternatives that would be available to future developments as technologies advance. Buildout of the General Plan area is expected

to occur over time. Therefore, SCE's expansion plans will be adjusted to accommodate future growth in the service area. Although build out of the City and growth within SCE's service area will increase demand for electrical services, state regulations for energy use and energy efficiency, the implementation of renewable resources as technologies develop and SCE's analysis of existing facilities and new facilities to provide reliable service and SCE's rate structure will assure that cumulative impacts are not considerable.

Transportation Energy

Buildout of the project, related projects, and additional forecasted growth would cumulatively increase the demand for transportation related fuel in the State and region. The project's estimated petroleum-based fuel usage during operation would be approximately 295,591.2 gallons of petroleum fuel per year. By comparison, the Southern California Association of Governments (SCAG) projects that the SCAG area would consume approximately 7 billion gallons of total petroleum fuel annually in 2045. Furthermore, California consumes approximately 26 billion gallons of petroleum per year. The anticipated increase in consumption associated with one year of the project operation is 0.004 percent of petroleum use in the SCAG area, and 0.0011 percent of the Statewide use.

Additionally, as described previously, petroleum accounts for 90 percent of California's transportation energy sources; however, over the last decade the State has implemented several policies, rules, and regulations to improve vehicle efficiency, increase the development and use of alternative fuels, reduce air pollutants and GHGs from the transportation sector, and reduce VMT, which would reduce demand on petroleum fuels. According to the CEC, total gasoline per capita has declined by 6 percent since 2008, and the CEC predicts that the demand for gasoline will continue to decline over the next 10 years and that there will be an increase in the use of alternative fuels, such as natural gas, biofuels, and electricity. As with the project, other future development projects would be expected to reduce VMT by encouraging the use of alternative modes of transportation and other design features that promote VMT reductions. Therefore, the project's contribution to cumulative impacts related to petroleum fuel would not be cumulatively considerable and, thus, would be less than significant.

Conclusion

Based on the analysis provided above, the project's contribution to cumulative impacts related to energy consumption (i.e., electricity and petroleum-based fuel) would not result in a cumulatively considerable impact related to the wasteful, inefficient, and unnecessary consumption of energy during construction or operation.

4.5.6 Mitigation Measures

No mitigation measures are necessary. However, project design features would minimize project impacts associated with energy use.

4.5.7 Level of Significance After Mitigation

Compliance with existing State, regional, and City regulations, plans, and programs, in addition to the incorporation of the use of energy efficient building materials and design features, would ensure that project impacts related to energy resources would be less than significant. The energy used during the construction of the project would be limited to the development of the project and would not require long-term petroleum use. Additionally, there are no unusual project characteristics or construction processes that would require the use of equipment that would be more energy intensive than is used for comparable activities, or use of equipment that would not conform to current emissions standards (and related fuel efficiencies). Impacts associated with energy resources are less than significant.

4.5.8 Resources

1. Edelweiss Sustainable Farms Greenhouse Gas Analysis, Urban Crossroads, Inc., April 2022
2. Edelweiss Sustainable Farms Traffic Study, Urban Crossroads, Inc., February 2022
3. Edelweiss Sustainable Farms VMT Analysis, Urban Crossroads, Inc., February 2022
4. CARB, EMFAC2017 Web Database, accessed January 2022, available at https://arb.ca.gov/emfac/
5. California Energy Demand 2018-2030 Revised Forecast, California Energy Commission, Demand Analysis Office, February 2018, accessed January 2022.
6. Corporate Average Fuel Economy, National Highway Traffic Safety Administration, available at https://www.nhtsa.gov/laws-regulations/corporate-average-fuel-economy, accessed January 2022.
7. California Energy Commission (CEC), California Energy Consumption Database, "Electricity Consumption by Planning Area", accessed January 2022 http://www.ecdms.energy.ca.gov/elecbyplan.aspx
8. Connect SoCal Final Addendum #2 to the Program Environmental Impact Report, Southern California Association of Governments, November 2021, https://scag.ca.gov/sites/main/files/file-attachments/final-addendum-02-peir-110421.pdf?1636047701, accessed April 2022.
9. Greenhouse Gas Equivalencies Calculator – Calculations and References, Environmental Protection Agency, https://www.epa.gov/energy/greenhouse-gases-equivalencies-calculator-calculations-and-references, accessed January 2022.
10. Integrated Resource Plan, Southern California Edison, September 2020, https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M346/K291/346291781.PDF, accessed January 2022.

11. SCE Circuit Reliability Report, Blythe California, Southern California Edison, 2021, https://edisonintl.sharepoint.com/teams/Public/Misc/Shared%20Documents/Forms/PublicView.aspx?id=%2Fteams%2FPublic%2FMisc%2FShared%20Documents%2Fdocuments%2FReliability%2FBlythe%2Epdf&parent=%2Fteams%2FPublic%2FMisc%2FShared%20Documents%2Fdocuments%2FReliability&p=true, accessed February 2022.

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4.6 Geology and Soils

4.6.1 Introduction

This section describes the existing setting and proposed improvements to the project site that could result in the placement of habitable structures in an area of known geologic hazards. This section is based on the information contained in the *Geotechnical Investigation* ("Geotechnical Investigation"), prepared by Sladden Engineering, Inc. in 2021; the *Paleontological Resources Assessment*, prepared by CRM Tech, in 2022; the *City of Blythe General Plan 2025*, and *City of Blythe General Plan Final Program Environmental Impact Report* (EIR)*, Chapter 3.5*; *City of Blythe 2020 Urban Water Management Plan Final Draft,* 2021*;* and the 2010, Geologic map of California, Version 2.0 (California Geological Survey 150th Anniversary Edition), Department of Conservation, California Geological Survey. The project's Geotechnical Investigation is included in the EIR in **Appendix G**, and the Paleontological Resources Assessment is included in **Appendix H**.

Prior to the preparation of the Draft EIR, an Initial Study was prepared in advance of the NOP for this Draft EIR, and is included in **Appendix A**. Following the screening criterion related to geology and soils in the NOP, threshold topic "e" does not require additional analysis in this Draft EIR.

> *Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater.*

The proposed project will connect to the City's wastewater collection system and does include use of any septic tanks or alternative disposal systems, and this threshold does not apply to the project. Other thresholds specific to geology and soils are addressed in detail in this chapter.

4.6.2 Existing Conditions

The project site is located within the City of Blythe, in the Palo Verde Valley, on the eastern side of Riverside County. The Palo Verde Valley is located within the western portion of the Sonoran Desert section (Mojave Desert), which is divided by the Colorado River. The dominant feature within the Blythe planning area is the north-trending depression known as the Colorado River Trough, formed by flooding of the Colorado River, regional faulting, downwarping, and sediment filling. The Palo Verde Valley is bordered by the Palo Verde Mesa to the west, the Big Maria Mountains to the north, and the Dome Rock Mountain to the east.

The Palo Verde Valley is located within the Mojave Desert Physiographic Province, which is a wedge-shaped province that is generally bounded by the Garlock Fault to the north and the San Andreas Fault system to the south. The Mojave Desert Province is characterized as a broad interior region of isolated mountain ranges separated by desert plains.

The Palo Verde Valley area of the Mojave Desert Province generally consists of a northeast-southwest trending valley comprised of Quaternary-age sediments generally consisting of alluvium (Qa). These sediments blanket the entire site and surrounding area and are generally found throughout the low-lying portions of the Palo Verde Valley. The mountainous areas bounding the Palo Verde Valley are comprised of various lithologic units including Tertiary age aphanites, Cretaceous-age granitoids, Paleozonic-age metamorphites and number other formal units (Geotechnical Investigation, 2021).

Seismicity and Faulting

The City of Blythe does not have active or potentially active faults within the boundaries of the City or the surrounding Palo Verde Valley. However, the region is within the influence area of several fault systems to the west that are considered to be active or potentially active.

Faulting

According to the Blythe General Plan EIR, there are 13 regional faults within a 100-mile radius of the City. However, there are no special study zones established by the State Geologist under the Alquist-Priolo Earthquake Fault Zoning Act of 1972 in the Palo Verde Valley Area. The closest fault recorded in the General Plan EIR is the East Highland Canal fault, which is approximately 59 miles west-southwest from the City. The faults and their distances from the City are indicated in the table below.

Table 4.6-1 Earthquake Faults within 100-miles of the City

Fault Name or Seismic Zone[1]	Distance from City	Direction
Imperial Valley Faults		
East Highland Canal	59 miles	WSW
Algodones	60 miles	SSW
Brawley Seismic Zone	68 miles	WSW
Brawley	73 miles	SW
Imperial	75 miles	SW
Cerro Prieto	94 miles	SW
San Andreas Fault System		
San Andreas – Coachella Valley	71 miles	WSW
San Andreas – San Gorgonio	99 miles	W
San Andreas – Whole S. California	71 miles	WSW
Mojave Faults		
Blue Cut	84 miles	WNW
Bullion Mountain Mesquite Lk.	85 miles	WNW
Pinto Mountain	89 miles	WNW
Ludlow	94 miles	WNW

1. Source: Table 3.5-2, Earthquake Faults within 200-miles of the Proposed Project Site, Blythe General Plan EIR, 2007.

Seismicity

Southern California is subject to seismic hazards of varying degrees depending on the proximity, degree of activity, and capability of nearby faults. These hazards can be primary (i.e., directly related to the energy release of an earthquake such as surface rupture and ground shaking) or secondary (i.e., related to the effect of earthquake energy on the physical world, which can cause phenomena such as liquefaction and ground lurching).

Earthquakes release seismic energy that is measured in terms of intensity and magnitude. Several factors determine the intensity of ground shaking, including the earthquake's magnitude, distance from the epicenter, and soil and rock composition. A variety of logarithmic scales have been used by seismologists to measure earthquakes. The most common measure of seismic intensity is the Modern Mercalli Intensity (MMI) scale, which measures damage from partial or total collapse of masonry structures to severe damage or devastation of underground infrastructure, bridges, overpasses, or other improvements. The Richter Scale measures earthquake magnitude as a function of amplitude of ground motion at distance from the epicenter, based on a scale from one to ten.

Below is a table of the closest known active faults to the project property as determined in the Geotechnical Investigation (**Appendix G**).

Table 4.6-2 Closest Known Active Faults

Fault Name	Distance	Maximum Event
Brawley Seismic Zone	65.2 miles	6.4
Elmore Ranch	65.6 miles	6.6
San Andreas – Southern	66 miles	7.2
San Andreas – Coachella	66 miles	7.2

The project is not located near any coastal areas; therefore, it is not prone to seismic-related tsunami hazards. A seiche is primarily defined by free or standing wave oscillations on the surface of water, the causes of which may be wind, atmospheric changes, or seismic activity. See **Section 4.9**, ***Hydrology and Water Quality***, for further analysis of secondary seismic hazards, such as tsunami and seiche, at the project site.

Rupture

Surface rupture occurs when movement on a fault breaks through to the surface. Fault rupture typically follows preexisting faults, since they are zones of weakness. Rupture may occur suddenly during an earthquake or slowly in the form of fault creep. Sudden displacements are more damaging to structures because they are accompanied by shaking. However, not all earthquakes result in surface rupture.

Landslides

As a result of seismic ground shaking, secondary effects such as slope failures, rockfalls and landslides may occur in the City, especially throughout elevated areas. According to the Blythe General Plan EIR, the majority of the City is located on level terrain, therefore, risks of landslides are negligible. However, slope failure may occur along the Colorado River, terraces of the Mesa, and along the Palo Verde Irrigation District (PVID) canal/drain banks. Unstable geologic and soils conditions and areas that contain steep slopes over 25 percent grade present developmental constraints that could pose a risk to building safety.

Topography

The terrain in most of the project area is relatively level due to past agricultural operations, with the exception of the existing drainage channels north and west of the site, and the PVID C Canal east of the project. Approximately 26 acres of the project site consists of agricultural row crops. This area has been tilled and harvested since at least 1948, based on historical aerial imagery. The western portion of the site is characterized by a row of mature trees consisting of palms and tamarisk, which have been watered by agricultural runoff water (please also see **Section 4.3**, ***Biological Resources***). Elevations on the property range approximately between 260 to 265 feet above mean sea level. The property is generally 5 to 8 feet below the grade of the Interstate 10 freeway.

Soils

Historic tectonic activity, recent and historical alluvial depositions associated with the Colorado River, and local mountain erosion patterns contribute to the geology in the region. As previously stated, soils in the City of Blythe generally consist of alluvium (Qa) which are sediment deposits that result from millennium of Colorado River flooding.

The subsurface soil conditions of the project property were analyzed by Sladden Engineering, Inc. during an onsite field investigation. Per the project-specific Geotechnical Investigation, Sladden Engineering, Inc. explored the subsurface conditions by completing six exploratory boreholes throughout the site at depths between approximately 3 and 21 feet below ground surface (bgs). Fill/disturbed soil was encountered to a depth of approximately two feet bgs. Underlying and artificial fill/disturbed soil and extending to the maximum depths explored, native alluvium consisting primarily of silty clay (CL), clayey sand (SC), and sand (SP) was encountered at the project site. See Section 4.6.4, *Methodology*, of this ***Geology and Soils*** Section for further discussion of the project-specific Geotechnical Investigation conducted at the site.

Erosion

Climate, topography, soil and rock types, and vegetation are all factors that influence erosion, runoff, and sedimentation. According to the Blythe General Plan EIR, soil erosion typically results from concentration runoff on unprotected slopes, along unlined river channels, or from wind erosion of tilled

agricultural land or other exposed surfaces. The primary sources of dust and blowing sand are surrounding desert lands, tilled agricultural lands and the eroded sands of the McCoy wash and other washes to the west and southwest. Dust and fine silt from these sources are carried by the winds and deposited on other fields and in urban areas (Blythe General Plan EIR, 2007).

Ground Subsidence

Ground subsidence is the gradual settling or sinking of the ground surface with little or no horizontal movement. It is caused by both human activities (i.e., groundwater extraction) and natural activities (i.e., earthquakes) and can cause regional damage. According to the Blythe General Plan EIR, the City's water supply is provided by groundwater. Subsidence can result from groundwater extraction leading to settlement of the overlying ground. In the Palo Verde Valley, groundwater is constantly replenished as a result of irrigation of tens of thousands or acres of agricultural lands with hundreds of thousands of acre-feet of Colorado River water, and the City's wells do not result in a reduction of the water table. The potential for subsidence in the City is considered moderate to low based on current hydrological conditions present in the valley. Seasonal fluctuations in groundwater levels can be more than 6 feet in some locations around the Valley, however, no evidence of subsidence has been reported.

Collapse

Soil collapse, also referred to as hydrocompaction, typically occurs in recently deposited sediments that accumulated in an arid or semi-arid environment. Sediments prone to collapse are commonly associated with alluvial fan and debris flow sediments deposited during flash floods. These deposits are typically dry and contain minute pores and voids. The soil particles may be partially supported by clay, silt or carbonate bonds. When saturated, collapsible soils undergo a rearrangement of their grains and a loss of cementation, resulting in substantial and rapid settlement under relatively light loads. An increase in surface water infiltration, such as from irrigation, or a rise in the groundwater table, combined with the weight of a building or structure, can initiate rapid settlement and cause foundations and walls to crack. Typically, differential settlement of structures occurs when landscaping is heavily irrigated in close proximity to the structure's foundation.

Paleontological Resources

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the localities where fossils were collected as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, which is typically regarded as older than approximately 12,000 years, the generally accepted temporal boundary marking at the end of the last late Pleistocene (circa 2.6 million to 12,000 years B.P.) glaciation and the beginning of the current Holocene epoch (circa 12,000 years B.P. to the present).

Common fossil remains include marine shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf assemblages; and petrified wood. Fossil traces, another type of paleontological resource, include internal and external molds (impressions) and casts created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

Paleontological resources are considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or interaction between paleobotanical and paleozoological biotas;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

The City of Blythe lies in the heart of the Palo Verde Valley, a narrow inland valley along the Colorado River and the California-Arizona border. The region is a part of the southwestern rim of the Mojave Desert geomorphic province. The mountains in the Mojave Desert geomorphic province are geologically complex in origin. The Big and Little Maria, Riverside, and McCoy Mountains consist of Proteerozoic gneiss and granite of the tectonically stable North American Craton overlain by Paleozoic to early Jurassic metasedimentary rocks (marble, schist, and quartzite), similar to units on the Colorado Plateau to the east. These strata are overlain by metamorphosed Jurassic volcanic rocks intruded by Plutonic rocks of the same timeframe, part of an expansive arc of magmatic geology in the greater region.

The McCoy Mountains specifically, northwest of the project area, are the namesake of a regionally dominant formation: the McCoy Mountain Formation. The formation consists of six members of very

thick, weakly metamorphosed siltstone, sandstone, mudstone, and conglomerate of Jurassic or Cretaceous origin. It underlies the project area itself and is described as a thick intrusive-extrusive volcanic terrane with local nonconformities and disconformities dating to late Triassic or early Jurassic lying atop the North American Craton.

Miocene sedimentary and volcanic rock accumulated in the basin and tectonic activity deformed these strata along low-angle detachment faults. The geology of the basin upon which the project area sits is late Miocene to Holocene in origin and includes limestone and fine-grained clastic sediments in the oldest layers representing estuarine or marine paleoenvironments and alluvium from local mountain ranges and the Colorado River floodplain in the youngest layers.

4.6.3 Regulatory Setting

Federal

National Pollutant Discharge Elimination System

The National Pollutant Discharge Elimination System (NPDES) was created in 1972 in the Clean Water Act to address water pollution by regulating point sources that discharge pollutants into waters of the United States. The regulations provide those discharges of storm water to waters of the United States from construction projects that encompass five or more acres of soil disturbance are effectively prohibited unless the discharge is in compliance with an NPDES Permit. Regulations (Phase II Rule) that became final on December 8, 1999, lowered the permitting threshold from five acres to one acre.

The NPDES Program has been delegated to the State of California for implementation through the State Water Resources Control Board (SWRCB) and its Regional Water Quality Control Boards. The SWRCB administers the NPDES permit program regulating storm water for construction activities, known as the General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, also known as the Construction General Permit. The main compliance requirement of NPDES permits is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) for construction projects, addressing on-site pollutants and establishing appropriate storm water best management practices (BMPs) during grading and construction as well as post-construction BMPs (please see **Section 4.9**, ***Hydrology and Water Quality***).

State

Alquist-Priolo Earthquake Fault Zoning Act

The Alquist-Priolo Earthquake Fault Zoning Act was enacted in 1972 to prohibit the location of developments and structures for human occupancy across the trace of active faults. To assist with this, the State Geologist delineates appropriately wide earthquake fault zones (Alquist-Priolo Zones) to

encompass potentially and recently active traces, which are submitted to city and county agencies to be incorporated into their land use planning and construction policies. A trace is a line on the earth's surface defining a fault, and an active fault is defined as one that has ruptured in the last 11,000 years. The minimum distance a structure for human occupancy can be placed from an active fault is generally fifty feet.

Seismic Hazard Mapping Act

The Seismic Hazards Mapping Act (SHMA) of 1990 directs the Department of Conservation, California Geological Survey to identify and map areas prone to earthquake hazards of liquefaction, earthquake-induced landslides and amplified ground shaking. The purpose of the SHMA is to reduce the threat to public safety and to minimize the loss of life and property by identifying and mitigating these seismic hazards.

The SHMA requires the State Geologist to establish regulatory zones (Zones of Required Investigation) and to issue appropriate maps (Seismic Hazard Zone maps). These maps are distributed to all affected cities, counties, and state agencies for their use in planning and controlling construction and development.

California Code of Regulations, Title 24 (California Building Standard Code)

The California Building Standards Commission operates within the Department of General Services and is charged with the responsibility to administer the process of approving and adopting building standards for publication in the California Building Standards Code (Cal. Code Regs., Title 24). These regulations include provisions for site work, demolition, and construction, which include excavation and grading, as well as provisions for foundations, retaining walls, and expansive and compressible soils. The California Building Code (CBC) also provides guidelines for building design to protect occupants from seismic hazards.

The City of Blythe Building Department uses the 2019 CBC in the plan check process and in field inspections. The City's Building Department will use the latest CBC in effect at the time of application for building permits within the project site as applications within each development phase are submitted.

Regional and Local

Mojave Desert Air Quality Management District

Mojave Desert Air Quality Management District (MDAQMD) is the regulatory agency responsible for improving air quality within portions of the Mojave Desert Air Basin, which encompasses desert portions of Kern, Los Angeles, Riverside, and San Bernardino counties. MDAQMD is responsible for controlling emissions primarily from stationary sources of air pollution, including grading and construction sites. The main source of pollution from grading and construction activities is fugitive dust, which is particulate

matter that is suspended in the air by direct or indirect human activities. Mojave Desert AQMD Rule 403 was adopted (recently amended in 2020) with the purpose of reducing the amount of fugitive dust entrained as a result of human activities. Rule 403 applies to any activity capable of generating fugitive dust.

Rule 403 – Fugitive Dust Control

The purpose of this rule is to reduce the amount of PM10 entrained in the ambient air from anthropogenic fugitive dust sources within the District by requiring actions to prevent, reduce, or mitigate Fugitive Dust. Rule 403 requires the implementation of best available dust control measures (BACM) during active operations capable of generating fugitive dust. This rule also requires active operations to notify the Mojave Desert AQMD by submitting specific forms. A project or facility with a Disturbed Surface Area of at least twenty acres (including Mining, Stone, Asphalt, and Clay Facilities); Residential Construction/Demolition Activity with a Disturbed Surface Area of at least ten (10) acres; Non-residential Construction/Demolition Activity with a Disturbed Surface Area of at least five (5) acres; Moving, depositing, or relocating more than 2,500 cubic yards per day of Bulk Materials on at least three days; Solar Projects capable of generating at least one megawatt of electrical energy or covering at least one acre; Heavily-Traveled unpaved roads used for industrial activity; and Any other project or facility where visible fugitive dust beyond the property line of the emissions source causes injury, detriment, nuisance, or annoyance to any considerable number of persons or the general public, or so designated by the Air Pollution Control Officer (APCO). The project will be subject to Rule 403.

Blythe Municipal Code

Title 15 – Buildings and Construction

Building, construction, and grading activities for the project would be subject to Title 15 of the Blythe Municipal Code, which governs the conditions, construction, and maintenance of all property, buildings, and structures within the City. Title 15 is based on the 2019 CBC, which sets minimum design and standards for construction of buildings and structures that must also meet minimum seismic design standards.

City of Blythe General Plan

Adopted on March 2007, the City of Blythe General Plan Safety Element assesses the physical characteristics of the planning area and the community's overall safety. This element relates to the need to protect the community from unreasonable risks from seismically induced hazards, including surface rupture, groundshaking, ground failure, seiching, dam failure, subsidence, and other geologic risks.

4.6.4 Project Impact Analysis

Thresholds of Significance

The following standards and criteria have been drawn from Appendix G: Environmental Checklist Form of the CEQA Guidelines. Development of the proposed project on the project site would have a significant effect on soils and geology if it is determined that the project will:

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
    i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?
    ii. Strong seismic ground shaking?
    iii. Seismic-related ground failure, including liquefaction?
    iv. Landslides?
b. Result in substantial soil erosion or the loss of topsoil?
c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?
d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property?
e. Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?
f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

As noted, threshold topic “e”, involving septic tanks or alternative wastewater disposal systems, is not analyzed since it is not applicable to this proposed project.

Methodology

Geotechnical Investigation

A Geotechnical Investigation was prepared for the project site by Sladden Engineering, in June 2021. The purpose of the Geotechnical Investigation was to explore the subsurface conditions at the site to provide recommendations for foundation design and site preparation relative to the development of the project. Sladden conducted a field exploration program, laboratory testing, and engineering analyses. Specifically, the site characterizations consisted of the following tasks:

- Site reconnaissance to assess the existing surface conditions on and adjacent to the site.

- Drilling six (6) exploratory boreholes to depths between approximately 3 and 20 feet below ground surface (bgs) in order to characterize the subsurface soil conditions. Representative samples of the soil were classified in the field and retained for laboratory testing and engineering analyses.
- Digging five exploratory trenches to depths of approximately five feet bgs in order to evaluate the subsurface soil conditions.
- The performance of laboratory testing on selected samples to evaluate their engineering characteristics.
- The review of available geologic literature and the discussion of potential geologic hazards.
- The performance of engineering analyses to develop recommendations for foundation design and site preparation.

Additional conclusions and determinations provided in this Geology and Soils section were derived from State resources and public agency (County and City) documentation. Agency maps illustrating regional and local fault lines and zones, susceptibility to liquefaction, areas susceptible to rockfalls and landslides, and areas of paleontological sensitivity were consulted to analyze the potential impacts of geology and soils present at the project site.

Paleontological Resources Assessment

A project-specific Paleontological Resources Assessment (referred to as "Paleontological Report" herein) was provided by CRM Tech in January 2022 (**Appendix H**). The Paleontological Report was conducted to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA. In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources, CRM Tech initiated records searches at the appropriate repositories, conducted a literature review, and carried out a systematic field survey of the project area. The methods and results of the project's Paleontological Report are provided below.

- Records searches provided by the Western Science Center (WSC) in Hemet, California. The WSC maintains files of regional paleontological localities as well as supporting maps and documents.
    - The records search by the WSC identified no known paleontological localities within the project area but did find numerous localities within similar geological contexts in the region.
- Literature review of the project site, including primarily topographic, geologic, and soil maps of the Blythe area, published geologic literature pertaining to the project location, the Riverside County General Plan and Geographic Information System, satellite and aerial images available at the Nationwide Environmental Title Research (NETR) Online website, and through the Google Earth software, and other materials in the CRM Tech library, including unpublished reports produced during similar surveys in the vicinity.

  - The surface geology in the project area was mapped as Qal, namely Holocene alluvium.
  - Another source identifies it as Qr, or Holocene alluvium of the modern Colorado River flood plain, and describes it as unconsolidated sand, silt, and mud largely converted to farmland.
  - A third source show the surface geology of the project area to be Qcb1, which they define as Oldest alluvial deposits dating to the early Holocene.
  - Riverside County paleontological sensitivity maps classified the project location as "Low Sensitivity".
- Field survey of the project area carried out on September 10, 2021. Dictated by variations in the density of vegetation cover and, consequently, in the level of ground visibility, the survey utilized a combination of reconnaissance-level and intensive-level field procedures. The intensive-level survey, covering mainly the western, northern, and eastern edges of the property, was conducted by walking a series of parallel transects at five-meter (approximately 15-foot) intervals.
  - Most of the interior portion of the property was surveyed at reconnaissance level by walking along roads across the alfalfa fields and inspecting ground surface wherever it is exposed, aided by an aerial drone flying over and photographing the areas covered by the crops. In this way, the entire project area was surveyed systematically to determine the soil types, to verify the geological formations, and to look for any indications of paleontological remains.
  - The field survey of the project area encountered no surface manifestation of any paleontological remains. However, in light of the extensive ground disturbance that has occurred on the property in the past, an accurate assessment of the paleontological sensitivity of the native soils is difficult to ascertain.

The Riverside County paleontological sensitivity map classifies the project location as "Low Potential".

- High Sensitivity A is defined as "sedimentary rock units with high potential for containing significant non-renewable paleontological resources… based on geologic formations or mapped rock units that are known to contain or have the correct age and depositional conditions to contain significant paleontological resources. These include rocks of Silurian or Devonian age and younger that have potential to contain remains of fossil fish, and Mesozoic and Cenozoic rocks that contain fossilized body elements and trace fossils such as tracks, nests and eggs".
- Undetermined Potential is defined as areas underlain by sedimentary units for which insufficient literature is available to make a determination of paleontological sensitivity.
- Low Potential is defined as "lands for which previous field surveys and documentation demonstrate as having a low potential for containing significant paleontological resources subject to adverse impacts".

According to the County, "surface geology, such as soils, are not always indicative of subsurface geology or the potential for paleontological resources. For instance, an area mapped as soil type 'Qal' may

actually be a thin surficial layer of non-fossiliferous sediment which covers fossil-rich Pleistocene sediments".

Project Impacts

a. Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:

i. Rupture of a known fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault

Based on the most recent Alquist-Priolo Earthquake Zoning Map, issued by the State Geologist, the closest Alquist-Priolo Earthquake Fault Zone to the project site is located approximately 63 miles southwest of the subject property, associated with the San Andreas Fault Zone. The project site is not located on an active fault or within an Alquist-Priolo Earthquake Fault Zone.

According to the Geotechnical Investigation (**Appendix G**), no signs of active surface fault rupture or secondary seismic effects (lateral spreading, lurching, etc.) were identified on-site during the field investigation.

There are no known active faults near or at the project site, and the project is not located in an Alquist-Priolo Earthquake Fault Zone. Therefore, there will be no impact associated with fault rupture on-site.

ii. Strong seismic ground shaking

Regional faults, including the San Andreas fault zone, have the potential to generate moderate to severe ground shaking in the Southern California. Factors that determine the effect of ground motion and the degree of structural damage that may occur include intensity of the earthquake, distance between epicenter and site, soil and bedrock composition, depth to groundwater, presence of ridge tops, and building design and other criteria.

The project site is located approximately 63 miles northeast of the closest active fault zone, the San Andreas Fault. The Geotechnical Investigation states that the project is located in the highly seismic Southern California region within influence of several fault systems that are considered by be active or potentially active. Therefore, seismic shaking is expected during the design life of the proposed project.

The proposed development will be constructed in a manner that reduces the risk of seismic hazards (Title 24, California Code of Regulations). According to Geotechnical Investigation and the 2016 CBC, Site Class D may be used to estimate design seismic loading for the proposed project's structures. The Site Class is based on the site soil properties in accordance with Chapter 20 of ASCE 7. Site Class D is classified as "stiff soil".

The project shall comply with the most current seismic design coefficients and ground motion parameters and all applicable provisions of the CBC, specifically Chapter 16 of the CBC, *Structural Design,* Section 1613, *Earthquake Loads*, as well as City Municipal Code Chapter 15.04. Chapter 15.04 adopts the 2019 California Building Code for regulating the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures.

Site work will be conducted in accordance with the project-specific geotechnical and soils analyses required with the submittal of grading and building plans. Foundation and structural design of the proposed project would reduce exposure of people or structures to adverse effects to the greatest extent possible. Sladden Engineering recommends that remedial grading within the proposed new building areas include the removal and re-compaction of any artificial fill soil or loose native soil to ensure that the presence of potentially compressible and expansive near-surface native soil and potential seismic settlements do not occur at the project site. Additionally, stripping areas of vegetation, associated root systems, and debris, over-excavating and re-compacting throughout building and foundation areas are recommended in order to remove soils and materials that are incompatible for development or materials with insufficient load-bearing capacity to support the onsite structures. This is indicated as **Mitigation Measures GEO-1**. In addition to the mitigated soil conditions, Sladden Engineering recommends guidelines for conventional shallow spread footings to ensure adequate support for the proposed buildings. This is provided in **Mitigation Measure GEO-2**. With the implementation of appropriate building codes and **Mitigation Measures GEO-1** and **GEO-2** provided in the project-specific geotechnical and soils analyses, impacts related to strong seismic shaking at the project site would be less than significant.

C Canal located east of the project site is an engineered canal maintained by PVID. The canal is maintained by PVID as part of their irrigation services to the agricultural uses in the Palo Verde Valley. PVID developed the canal to comply with current building codes and standards to withstand the effects of strong seismic shaking, which assures less than significant impacts associated with inundation.

iii. Seismic-related ground failure, including liquefaction

Liquefaction occurs when ground shaking of relatively long duration and intensity over 0.2 g occurs in areas of loose, unconsolidated soils with relatively shallow groundwater depths (50 feet or less). The sudden increase in water pressure in pores between soil grains may substantially decrease soil shear strength, and the soil takes on the qualities of a liquid or a semi-viscous substance. This loss of soil strength can result in ground settlement, ground undulation, lateral spreading or displacement, and flow failures. Structures may sink or tilt as bearing capacity decreases, causing substantial damage. Other effects of liquefied soils include a loss of bearing strength, ground oscillations, lateral spreading, and ground lurching and slumping.

According to the Blythe General Plan EIR, the Palo Verde Valley is within a zone of potential liquefaction. In Blythe, the highest liquefaction potential exists for lands along or near the Colorado River. Due to the shallow groundwater depth and alluvial nature of the soils (silts, sands, and sandy silts), the risk from liquefaction as a result of a major earthquake in fault systems to the west of Blythe are considered moderate.

In order to assess the subsurface conditions, Sladden Engineering conducted a field investigation by drilling six exploratory boreholes onsite. Groundwater was encountered at depths of approximately 7.5 feet below existing grade. Although the investigation determined high groundwater depth of 7.5 feet bgs, Sladden Engineering concluded that hazards associated with liquefaction susceptibility should be considered low based on the anticipated low ground accelerations and the project's distance from causative faults.

Although the project's liquefaction susceptibility is low, the project site will be required to comply with the site preparation and foundation recommendations listed in the project-specific Geotechnical Investigation in order to ensure project safety. The Geotechnical Investigation recommends site preparation actions as described above and included in **Mitigation Measures GEO-1** through **GEO-6**. With the implementation of **Mitigation Measures GEO-1** through **GEO-6** and State building standards, impacts of seismic related ground failure at the project will be reduced to less than significant.

iv. Landslides

The project site and surrounding area is defined by relatively flat land. The closest areas with slopes occur outside of the City's boundary and include Big Maria Mountain at the City's northern boundary, McCoy and Palo Verde Mountains to the west, Mule Mountain to the southwest, Trigo Mountain to the south, and Cunningham and Dome Mountains to the east. The surrounding mountain ranges are not located in close proximity to the project, therefore, landslides or rockfalls associated with these mountains would not occur near the project site. Additionally, the Geotechnical Investigation indicated no signs of slope instability in the form of landslides, rockfalls, earthflows, or slumps were observed at or near the subject site. Therefore, Sladden Engineering concluded that risks associated with slope instability should be considered negligible. Impacts will be less than significant.

b. Result in substantial soil erosion or loss of top soil

According to the Blythe General Plan EIR, soil erosion typically results from concentrated runoff on unprotected slopes, along unlined river channels, or from wind erosion of tilled agricultural land or other exposed surfaces. The primary sources of dust and blowing sand are surrounding desert lands, tilled agricultural lands and the eroded sands of McCoy Wash and other washes to the west and southwest.

Soil erosion at the project site can be caused by windborne, waterborne, and human-related activities, including project construction and operation as discussed below.

Windborne Erosion

Construction of this project will involve ground disturbing activities, such as the clearing and grubbing of existing vegetation, and grading of the property. These activities will increase the potential of soil erosion at the time of development. In order to reduce the effect of windborne erosion at the project site, the project shall be required to implement Mojave Desert Air Quality Management District Rule 403, the Fugitive Dust Abatement Plan. The purpose of this plan is to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. The Fugitive Dust Abatement Plan requires the implementation of best management practices (BMPs) such as the use of perimeter fencing, applying adhesive dust suppressant, or watering the project site. The project property shall implement the BMPs for on- and off-site improvements outlined within their project-specific Fugitive Dust Abatement Plan during construction of the project site. Additionally, each phase of construction will develop BMPs to protect previous phase occupants. This is required as **Mitigation Measure AQ-1**. Refer to **Section 4.2, *Air Quality***, of this environmental document for further information on the Fugitive Dust Abatement Plan.

Waterborne Erosion

In addition to windborne erosion, the project property will be subject to waterborne erosion during project construction and operation. Waterborne erosion can be caused by both human activities, such as over-watering a site, and natural conditions, such as stormwater runoff from a rain event. Manmade drainage facilities currently exist along the northern, western, and eastern project boundaries. Onsite stormwater runoff typically follows existing flows, and then percolates into the site soils. The irrigation channels to the north and west assist in directing stormwater runoff. The project is required to comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP), which is designed to reduce potential adverse impacts to surface water quality during the period of construction. The required plan will identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. The SWPPP may include, but is not limited to, the following BMPs:

- *Temporary Soil Stabilization:* sandbag barriers, straw bale barriers, sediment traps, and fiber rolls;
- *Temporary Sediment Control:* hydraulic mulch and geotextiles;
- *Wind Erosion Control:* watering of the construction site, straw mulch;
- *Tracking Control:* staging/storage area and street sweeping;
- *Non-stormwater Management:* clear water diversion and dewatering; and
- *Waste Management and Materials Pollution Control:* vehicle and equipment cleaning, concrete waste management, and contaminated soil management.

A Notice of Intent (NOI) to implement a SWPPP must be submitted to the State Water Resources Control Board (SWRCB) who will issue a Waste Discharge Identification (WDID) number. The SWPPP and WDID must be kept on-site during the period of construction. The implementation of the SWPPP at the project site is required as **Mitigation Measure HWQ-1,** provided in **Section 4.9, *Hydrology and Water Quality*.** Therefore, the implementation of a SWPPP for the project site would not result in substantial soil erosion or the loss of topsoil during construction. This issue is discussed further in **Section 4.9** of this Draft EIR.

As stated above, project implementation will include landscaping, buildings, and paved areas throughout the property. During operation of the project, landscaped areas, which would include ground coverings, trees, and turfgrass, will stabilize the ground surface. Irrigation systems (i.e., sprinklers or drip irrigation) would also be maintained during project operation to ensure that overwatering of plants (which leads to waterborne erosion) does not occur. Drainage and retention facilities would also be maintained during project operation to ensure their intended function. The required routine maintenance of the onsite drainage and retention facilities and associated infrastructure would reduce the likelihood of flooding on the property. Additionally, the project would introduce impervious, paved areas throughout the property. The impervious surfaces would reduce the potential for erosion during operation by stabilizing the ground surface and minimizing the amount of exposed soil. These features will establish stabilized surfaces and onsite maintenance at the project site, thereby decreasing the likelihood of onsite windborne and waterborne erosion during project operation.

Finally, as recommended in the project-specific Geotechnical Investigation, onsite drainage and minor retaining walls shall provide rapid removal of surface water runoff to an adequate discharge point (away from foundations). This is required in **Mitigation Measures GEO-6** and **GEO-7**.

The implementation of the Fugitive Dust Abatement Plan (**Mitigation Measure AQ-1**) and the SWPPP (**Mitigation Measure HWQ-1**), both outlined above, and further discussed in the ***Air Quality*** and ***Hydrology and Water Quality*** Sections of this document, as well as **Mitigation Measures GEO-6** and **GEO-7** will ensure that impacts from erosion created from the project site will be less than significant.

c. *Located on geologic unit that is unstable, or become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse*

During Sladden Engineering's field investigation of the project property, fill/disturbed soil was encountered to a depth of approximately two (2) feet below ground surface (bgs) in the area of the bores. Underlying the artificial fill/disturbed soil and extending to the maximum depths explored, native alluvium consisting primarily of silty clay (CL), clayey sand (SC), and sand (SP) was encountered. Granular horizons appeared moist to wet, moderately dense and yellowish to reddish brown in in-situ color. Generally, cohesive layers were moist to wet, medium stiff and exhibited characteristics indicative of low to medium plasticity soil.

Liquefaction

As discussed previously, in section a) iii., liquefaction occurs when ground shaking of relatively long duration and intensity causes loose, unconsolidated soils to act like a liquid and lose strength. The project site is located in an area susceptible to liquefaction due to the historically shallow groundwater. Sladden Engineering encountered groundwater at depths of approximately 7.5 feet below existing grade and, based on recorded groundwater depths in the project vicinity, anticipates that groundwater may be encountered during site grading and within deep excavations and utility trench excavations.

Although shallow groundwater depths occur at the project site, Sladden Engineering concluded that based on the anticipated low ground accelerations and the distance from causative faults, hazards associated with liquefaction, and subsequent effects (i.e., lateral spread), should be considered low. However, as stated in discussion a.iii, the Geotechnical Investigation provides recommends that ensure appropriate soil and foundational conditions are at the project site. These recommendations are listed as **Mitigation Measures GEO-1** through **GEO-6,** below. Development within the project site will also comply with the current CBC standards and City requirements. With the implementation of **Mitigation Measures GEO-1** through **GEO-6** and State building standards, impacts of liquefaction at the project will be reduced to less than significant.

Landslides and Rockfalls

The project site and surrounding area is defined by relatively flat land, primarily characterized by agricultural land and commercial structures. The project property is not situated in close proximity to the local mountain ranges, therefore, landslides or rockfalls associated with these mountains would not occur near the project site. Additionally, the Geotechnical Investigation indicated no signs of slope instability in the vicinity and no potential for landslides, rockfalls, earthflows, or slumps were observed at or near the subject site. Therefore, Sladden Engineering concluded that risks associated with slope instability should be considered negligible. Impacts will be less than significant.

Ground Subsidence

As described above, land subsidence can occur in valleys where aquifer systems have been subjected to extensive groundwater pumping, such that groundwater pumping exceeds groundwater recharge.

According to the City of Blythe 2020 Urban Water Management Plan (UWMP), the City of Blythe's primary source of water is groundwater. The City owns a total of 15 groundwater wells. The wells range in capacity from 3,000 gallons-per-minute (gpm) to 1,500 gpm. Currently, only five wells are active full time. The remaining wells are either seasonal, standby, or inactive. The Palo Verde Valley Groundwater Basin is located within the Colorado River Hydrologic Region, which is known for its arid climate and low level of precipitation-driven groundwater recharge. The basin is bounded on the west by the Palo Verde Mesa, on the south by the Palo Verde Mountains, and on the east by the Colorado River. Recharge of the Palo Verde Basin is primarily from more than a century of deep percolation losses from irrigation of

up to 104,500 acres of Palo Verde Valley farmlands with hundreds of thousands of Colorado River annually. The associated increase in the underlying water table has resulted in the development of a system of drainage canals to intercept the water and discharge it back to the Colorado River at the southern end of PVID's drainage system

The basin has three major aquifers, which consist mostly of alluvial deposits. The upper aquifer, which is relatively shallow, consists of sand, silt, and clay with some gravel and ranges in thickness from 160 to 600 feet. The middle aquifer ranges from 500 to 600 feet below surface and consists of clay, silt, and sand. The lowest aquifer is typically found at depths of 800 feet or greater. The total storage capacity of these three aquifers (the basin overall) is just under 5 million acre-feet (MAF).

Subsidence can result from groundwater extraction causing overlying land to settle or suddenly sink. The potential for subsidence in the City is considered moderate to low based on current hydrological conditions present in the valley. Annual seasonal fluctuations in groundwater levels can be more than six feet in some locations throughout the valley, however, no evidence of major subsidence has been reported. To manage groundwater, the City implements water conservation through a combination of programs, resources, and polices such as water waste prevention ordinances, metering, conservation pricing, public education and outreach, water loss programs, and water conservation program. Due to these conservation practices, the overall water use within the City's service area has steadily declined although the City's population has mildly increased over the past two decades. This is a result of water conservation, as the efficiency of water use has outweighed the additional water users. Annual water consumption from 2001 to 2015 listed in the 2015 UWMP ranged from a high of 4,845 AF in 2002 to a low of 3,229 AF in 2015, with an average of 3,989 AF.

The operation of the proposed project will consume water, which will be supplied to the site via the City of Blythe's water lines located in Hobsonway. Project domestic water supplies and associated landscape irrigation supplies will be provided from groundwater from the Palo Verde Valley Groundwater Basin via Blythe's potable water distribution system. Potable water will be provided to the site by constructing 12-inch water mains to connect to an existing water pipeline on Hobsonway, from two points of connection. No excessive withdrawal of water for the City to provide water is anticipated, and the potential for subsidence is considered low and impacts would be less than significant.

Collapse

Soil collapse occurs in recently deposited sediments that accumulated in an arid or semi-arid environment. The Palo Verde Valley area of the Mojave Desert Province generally consists of a northeast-southwest trending valley comprised of Quaternary-age sediments generally consisting of alluvium (Qa). These sediments are also onsite the entire site and surrounding area. The project is required to remove debris, vegetation, undocumented fill soil, and loose soil from the existing soil, and compact the soil using controlled compacted fill, as provided in **Mitigation Measure GEO-1.** Additional mitigation regarding soil and foundational conditions are included as **Mitigation Measures GEO-2** through **GEO-6**.

The implementation of these mitigation measure will assure that impacts associated with soil collapse remain less than significant.

Conclusion

Grading plans and structural engineering plans will be reviewed and approved by the City. The project will be conditioned to comply with the current CBC standards, City requirements, and recommendations stated within the project specific Geotechnical Investigation to reduce the impacts of potentially unstable soils. The recommendations provided in the Geotechnical Investigation are included in **Mitigation Measure GEO-1**, which requires the project to remove debris, vegetation, artificial fill soil, and loose soil from the existing soil, and compacted using controlled compacted fill. The subgrade and all fill material shall all be compacted with acceptable compaction equipment. Additional mitigation measures recommended in the Geotechnical Investigation includes guidelines for conventional shallow spread footings, the placement of concrete slabs on grade on compact engineered fill, subgrade soil conditions, soil backfill materials, and drainage conditions are listed below as **Mitigation Measures GEO-2** through **GEO-6**. The implementation of **Mitigation Measure GEO-1** through **GEO-6** prior to and during project grading and construction would ensure that foundation bearing conditions are firm and uniform, therefore, reducing impacts of geological hazards to less than significant levels.

d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial direct or indirect risks to life or property

Expansive soils contain a significant amount of clay particles which can give up water (shrink) or take on water (swell). The change in volume exerts stress on buildings and other loads placed on these soils, making them potentially hazardous. According to the Geotechnical Investigation, the surface soil at the project site consists of clayey sand. The Geotechnical Investigation contains an Expansion Index test of select samples on the project site to evaluate expansive potential of the materials underlying the property. Based on the results of Sladden Engineering's laboratory testing, the materials underlying the site are considered to have a "very low" expansion potential. The recommended remedial grading will result in substantial mixing and blending of the surface soil with the underlying alluvium. Since significant grading is expected at the project site, the expansion index of the surface soil should be re-evaluated after grading.

Per the Geotechnical Investigation, recommendations regarding foundation design, such as the removal and re-compaction of any loose soil, should be carried out through construction. If imported fill is required, the material should be of a non-expansive nature and should meet the criteria outlined within the Geotechnical Investigation. The project shall comply with the recommendations established within the project-specific Geotechnical Investigation to ensure the foundational safety of the project site. The recommendations established in the Geotechnical Investigation are contained in **Mitigation Measure**

GEO-1 through **GEO-6, GEO-7** and **GEO-8**. With the implementation of the proposed mitigation measures, the impact will be less than significant.

f. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature

CRM Tech prepared a project-specific Paleontological Report (**Appendix H**) on January 23, 2022 on the project property. The Paleontological Report was designed to identify any significant, non-renewable paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities. In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM Tech initiated records searches at the appropriate repositories, conducted a literature review and carried out a systematic field survey of the project area. Throughout the course of these research procedures, no paleontological resources were identified within or adjacent to the project area.

In addition to the records searches and literature reviews, CRM Tech also completed a field survey from September 10, 2021, of the project area. The field survey of the project area encountered no surface manifestation of any vertebrate fossil remains. The surface soils contained freshwater shells, especially in the former agricultural fields. However, in light of the extensive ground disturbance that has occurred on the property in the past, an accurate assessment of the paleontological sensitivity of the native soils is difficult to ascertain. Some freshwater clam and mussel shells were observed embedded in the levee along C Canal, which are virtually ubiquitous in such a setting.

Although the research and field survey performed by CRM Tech did not identify paleontological resources within the project area, there is a potential for the presence of Pleistocene-age alluvium to occur at greater depths at the site, since deposits have been well documented in southern California. Pleistocene-age alluvium generally has a high potential to contain significant, nonrenewable fossil remains, at unknown depths below surface. Therefore, CRM Tech concluded that the project's potential to impact significant, nonrenewable paleontological resources appears to be low in the disturbed surface soils but high in the undisturbed native soils below surface. It is recommended that excavation activities greater than three feet, may result in impacts paleontological resources. In order to reduce impacts to paleontological resources encountered at depth on the project site, the applicant requested **Mitigation Measure GEO-9** to be implemented at the project site. As described in **GEO-9**, below, all earthmoving operations reaching beyond the depth of three feet shall be monitored by a qualified paleontological monitor. With implementation of the mitigation measure, impacts associated with fossils on the project site will be less than significant.

4.6.6 Cumulative Impacts

Potential cumulative impacts on geology and soils could result from projects that combine to create geologic hazards, including unstable geologic conditions. For purposes of assessing the project's cumulative impact with respect to geology and soils, the cumulative analysis is based upon a list approach and all seven of the cumulative projects identified in **Table 4.0-1** are considered in this cumulative analysis. Although, most geology and soil hazards associated with development projects in the surrounding area would be site specific, cumulative growth in the project area would expose a greater number of people to geologic hazards.

Due to the localized nature of geology and soils, cumulative projects would address potential impacts on a project-by-project basis, as potential geologic hazards and soil composition varies by site. The nearest cumulative project, Desert Community Network, is located at 1790 W. Hobsonway, west of the project site.

As discussed above, any potential project-site impacts can be mitigated to a less than significant level. Mitigation measures in the form of CBC compliance and recommendations outlined in a project-specific geotechnical investigation during grading and construction will address geotechnical hazards associated with seismic ground shaking, ground failure, liquefaction, subsidence, loss of topsoil, and expansive or corrosive soils, and will apply to all future development in the City. **Mitigation Measure GEO-1** through **GEO-8** would ensure that the project adheres to the recommendations provided in the project-specific Geotechnical Investigation.

Further, as discussed in Section 4.6.4, the project site has low potential to yield paleontological resources in the disturbed surface soils but high in the undisturbed native soils below surface. **Mitigation Measure GEO-9** requires the presence of a qualified paleontological monitor onsite during earth-moving operations reaching beyond the depth of three feet. With implementation of the foregoing mitigation measures as well as implementation of project-specific PM10 Plan (**Mitigation Measure AQ-1**) and SWPPP (**Mitigation Measure HWQ-1**) development within the project will not cause or contribute to any cumulative impacts associated with geology and soils, and are thus considered to be less than significant. It is expected that cultural resources studies would be prepared for all cumulative projects to assess potential impacts and incorporate monitoring, as appropriate, to avoid significant impacts, as the presence of these resources is typically unknown until earthwork activities commence for project construction. Additionally, all future projects in the region would be subject to established guidelines and regulations pertaining to building design and seismic safety, including those set forth in the California Building Code. For the cumulative projects that are within sensitive areas for paleontological resources, the expectation is that mitigation measures would be included to require consultation with a paleontologist or a construction monitor to ensure that impacts to this resource to do not occur. Therefore, project impacts would not be cumulatively considerable.

4.6.6 Mitigation Measures

GEO-1 All earthwork including excavation, backfill and preparation of the subgrade soil, shall be performed in accordance with the geotechnical recommendations, presented below, and portions of the local regulatory requirements, as applicable. All earthwork should be performed under the observation and testing of a qualified soil engineer. The following geotechnical engineering recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analysis.

- Stripping: Areas to be graded shall be cleared of any existing structures, surface, and subsurface improvements, vegetation, the associated root systems, concrete and debris. All areas scheduled to receive fill should be cleared of any oversized or unsuitable material that should be removed off site. Voids left by obstruction shall be properly backfilled in accordance with the compaction recommendations of the Geotechnical Investigation.
- Preparation of the Building Areas: In order to achieve firm and uniform bearing conditions, over-excavation and re-compaction shall occur throughout the building areas. All artificial fill soil and low density near surface native soil should be removed to a depth of at approximately 3 feet below existing grade or 2 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally, a minimum of five feet beyond the building perimeter. The soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction.
- Compaction: The soil removed by over-excavation and any other material to be used as engineered fill soil should be free of organic material, debris, and any deleterious substances and should not contain irreducible matter greater than 8 inches in maximum dimension. The soil removed during over-excavation and all fill materials should be placed in thin lifts not exceeding six inches in a loose condition at over optimum moisture content. If import fill is required, the material should be of non-expansive nature and shall meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 Inches

The subgrade and all fill material shall be compacted with acceptable compaction equipment, to at least 90 percent relative compaction. The bottom of the excavation should be observed by a representative of Sladden Engineering prior to fill placement.

Compaction testing should be performed on all lifts in order to verify proper placement of the fill materials.

- Shrinkage and Subsidence: Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill shall be anticipated. It is estimated that shrinkage could vary from 10 percent to 20 percent. Subsidence of the surfaces that are scarified and compacted shall be between 1 and 3 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.
- Stabilization: Deeper excavations will likely require stabilization due to shallow groundwater conditions. A gravel/crushed rock layer approximately 2 feet thick should be placed within the excavation bottoms to provide a stable working platform and to promote drainage and removal of groundwater that seeps into the excavation. The gravel/crushed rock should be surrounded by an appropriate filter fabric to prevent the migration of fines during dewatering operations. Geogrid reinforcement should be placed withing the gravel/crushed rock.

GEO-2 Conventional Shallow Spread Footings: Conventional shallow spread footings are expected to provide adequate support for the proposed buildings. Load bearing walls may be supported on continuous footings and interior columns may be supported on isolated pad footings. All footings should be founded upon properly compacted engineered fill soil and should have a minimum embedment depth of 18 inches measured from the lowest adjacent finished grade. Continuous and isolated pad footings should have minimum widths of 12 inches and 24 inches, respectively. Continuous and isolated pad footings may be designed using an allowable (net) bearing pressures of 1,800 and 2,000 pounds per square foot (psf), respectively. Allowable increases of 250 psf for each additional 1 foot in width and 250 psf for each additional 6 inches in depth may be utilized, if desired. The maximum allowable bearing pressure should be 3,000 psf. The maximum bearing pressure applies to combined dead and sustained live loads. The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces.

Based on the allowable bearing pressures recommended above, the total static settlement of the shallow footings is anticipated to less than one-inch, provided that foundation preparation conforms to the recommendations provided in this report. Differential static settlement is anticipated to be approximately one-half the total static settlement for similarly loaded footings spaced up to approximately 40 feet apart.

Lateral load resistance for the spread footings will be developed by passive soil pressure against the sides of the footings below grade and by friction acting at the base of the concrete footings bearing on compacted fill. An allowable passive pressure of 250 psf per foot of depth may be used for design purposes. An allowable coefficient of friction 0.40 may be used for

dead and sustained live loads to compute the frictional resistance of the footing placed directly on compacted fill. Under seismic and wind loading conditions, the passive pressure and frictional resistance may be increased by one-third.

All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture softened soils and/or any construction debris should be removed prior to concrete placement. Excavated soil generated from footing and/or utility trenches should not be stockpiled within the building envelope or in areas of exterior concrete flatwork. All footings should be reinforced in accordance with the project Structural Engineer's recommendations.

GEO-3 Slabs on Grade: Concrete slabs-on-grade must be placed on properly compacted engineered fill as outlined in the Geotechnical Report. The slab subgrades should remain at over optimum moisture content and should not be permitted to dry prior to concrete placement. All slabs subgrades should be firm and unyielding. Disturbed soil should be removed and then replaced and compacted to a minimum of 90 percent relative compaction.

Floor slab thickness and reinforcement should be determined by the Structural Engineer. Based on the anticipated use, a minimum floor slab thickness of 5.0 inches and minimum slab reinforcement of #4 bars at 24 inches on center. All slab reinforcement should be properly supported to ensure that reinforcement is placed at slab mid-height.

Slabs with moisture sensitive surfaces should be underlain with a moisture vapor retarder consisting of polyvinyl chloride membrane such as 10-mil visqueen, or equivalent. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface cannot be achieved by grading, consideration should be given to placing a 1-inch thick leveling course of sand across the pad surface prior to placement of the membrane.

GEO-4 Exterior Concrete Flatwork: To minimize cracking of concrete flatwork, the subgrade soil below concrete flatwork areas should be compacted to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil prior to concrete placement.

GEO-5 Utility Trench Backfill: All utility trench backfill should be compacted to a minimum of 90 percent relative compaction. Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve over optimum moisture content, and then mechanically compacted to a minimum of 90 percent

relative compaction. A representative of the project soil engineer should test the backfill to verify adequate compaction.

GEO-6 Drainage: All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. In order to reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading.

GEO-7 Retaining Walls: Minor retaining walls may be required to accomplish the construction of the project. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 35 pcf for native backfill soil with level drained backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 55 pcf for native backfill soil with level drained backfill conditions.

GEO-8 Corrosion Series: The soluble sulfate concentrations of the surface soil was determined to be 180 parts per million (ppm). The soil is considered to have a "very low" corrosion potential with respect to concrete in accordance with ACI 318. The use of Type V cement and special sulfate resistant concrete mixes will be necessary. Soluble sulfate content of the surface soil should be reevaluated after grading and appropriate concrete mix designs should be established based upon post-grading test results.

The pH levels of the surface soil was determined to be 9.2. Based on soluble chloride concentration testing (80 ppm), the soil is considered to have a "very low" corrosion potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 1,600 ohm-cm, that suggests the site soil is considered to have a "moderate" corrosion potential with respect to ferrous metal installations. A corrosion expert should be consulted regarding appropriate mitigation measures for corrosion sensitive materials.

GEO-9 All earth-moving operations reaching beyond the depth of three feet shall be monitored by a qualified paleontological monitor. The monitor shall be empowered to stop earth moving activities if fossils are identified. The monitor shall be prepared to quickly salvage fossils, but must have the power to temporarily halt or divert construction equipment to allow for removal of abundant or large specimens. A monitoring plan shall be provided to the City prior to the issuance of any earth moving permit, or the disturbance of any soils on the site, which will include:

- Samples of sediments shall be collected and processed to recover small fossil remains.
- Recovered specimens shall be identified and curated at a repository with permanent retrievable storage that would allow for further research in the future.

A report of findings, including an itemized inventory of recovered specimens and a discussion of their significance when appropriate, shall be prepared upon completion of the research procedures outlined above. The report shall be provided to the City of Blythe Development Services Department.

AQ-1 The project shall implement a Fugitive Dust Abatement Plan to reduce the amount of particulate matter entrained in the ambient air as a result of anthropogenic fugitive dust sources by requiring actions to prevent, reduce or mitigate fugitive dust emissions. The Fugitive Dust Abatement Plan requires the implementation of best management practices (BMPs) such as the use of perimeter fencing, applying adhesive dust suppressant, or watering the project site. The project property shall implement the BMPs for on- and off-site improvements outlined within their project-specific Fugitive Dust Abatement Plan during construction of the project site. Additionally, each phase of construction will develop BMPs to protect previous phase occupants.

HWQ-1 The project proponent must comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP), which is designed to reduce potential adverse impacts to surface water quality during the period of construction. The SWPPP must identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted to the State Water Resources Control Board (SWRCB) who will issue a Waste Discharge Identification (WDID) number. The SWPPP and WDID must be kept on-site during the period of construction.

4.6.7 Level of Significance After Mitigation

With implementation of **Mitigation Measures GEO-1** through **GEO-9**, and **Mitigation Measures AQ-1** and **HWQ-1,** impacts associated with geologic hazards and paleontological resources would be reduced to less than significant levels. Mitigation measures will be applied as future projects are proposed within the project site, and the project design and construction of habitable structures must be per the recommendations of each project's Geotechnical Investigation Report as well as the latest UBC and CBC as required by the City Engineer. Responsible parties include each project's geotechnical consultant and the City Engineer or his/her designee.

4.6.8 Resources

1. Areas of Land Subsidence in California Map, United States Geological Survey (USGS), https://ca.water.usgs.gov/land_subsidence/california-subsidence-areas.html

2. City of Blythe General Plan Chapter 7, Safety Element, March 2007.
3. City of Blythe General Plan Final Program EIR, Chapter 3.5, Geology, Soils and Mineral Resources, January 2007.
4. City of Blythe 2020 Urban Water Management Plan Final Draft, May 2021. https://www.cityofblythe.ca.gov/DocumentCenter/View/1657/2020-Urban-Water-Management-Plan-Final-Draft-?bidId=
5. County of Riverside Environmental Impact Report No. 521, Cultural and Paleontological Resources (Section 4.9), County of Riverside, 2015.
6. Geotechnical Investigation Proposed Cultivation Facility, Sladden Engineering, June 2021.
7. Paleontological Resources Assessment Report, Cannabis Cultivation Project, CRM Tech, January 2022.

4.7 Greenhouse Gas Emissions

4.7.1 Introduction

The purpose of this section is to discuss the existing greenhouse gas (GHG) conditions pertinent to the City of Blythe, Palo Verde Valley, and Mojave Desert Air Quality Management District (MDAQMD) jurisdiction in order to analyze the potential GHG emission impacts resulting from construction and operation of the project. The GHG principles, descriptions and supporting analysis rely on the relevant background research and information made available in various public regulatory and reference documents cited throughout this section. Reference documents include the Federal *Clean Air Act* (CAA); City of Blythe Code of Ordinances; Mojave Desert Air Quality Management District (MDAQMD) Rules and Regulations; MDAQMD CEQA and Federal Conformity Guidelines, February 2020; MDAQMD Attainment, Demonstration, and Maintenance Plans documentation; *California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators*, 2021 Edition, California Air Resources Board; Releases No. 18-37 & 19-35, California Air Resources Board Press Release, July 2018 and August 2019.

At the project-specific level, the analytical and quantitative findings are based on the *Edelweiss Sustainable Farms Greenhouse Gas Analysis* (GHGA), prepared for the project by Urban Crossroads, Inc. The purpose of the GHGA was to quantify and evaluate project-related construction and operational emissions and to determine their level of significance when compared against the thresholds established in the MDAQMD CEQA and Federal Conformity Guidelines. The GHGA methodology relied on CalEEMod Version 2020.4.0 to quantify GHG emissions associated with the project. As previously described in the Air Quality Section, CalEEMod utilizes widely accepted methodologies for estimating emissions. Sources of these methodologies and default data include but are not limited to the United States Environmental Protection Agency (USEPA) AP-42 emission factors, California Air Resources Board (CARB) vehicle emission models, studies commissioned by California agencies such as the California Energy Commission (CEC) and CalRecycle.

The GHGA documentation referenced in this section is provided in the Appendices of this Draft EIR (**Appendix I**).

4.7.2 Existing Conditions

GHG Fundamentals

According to the U.S. Environmental Protection Agency (EPA), greenhouse gases (GHG) are a group of gases that trap solar energy in the Earth's atmosphere, preventing it from becoming too cold and uninhabitable. Greenhouse gases include, but are not limited to, water vapor, carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrochlorofluorocarbons (HCFCs), ozone (O_3), hydrofluorocarbons

(HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). Carbon dioxide is the primary greenhouse gas emitted through human activities. Carbon dioxide reflects solar radiation back to Earth, thereby trapping solar energy and heat within the lower atmosphere. Human activities (such as burning carbon-based fossil fuels) create water vapor and CO_2 as byproducts, thereby impacting the levels of GHG in the atmosphere. Carbon dioxide equivalent (CO_2e) is a metric used to compare emissions of various greenhouse gases. It is the mass of carbon dioxide that would produce the same estimated radiative forcing as a given mass of another greenhouse gas. Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms.

GHGs are the result of both natural and anthropogenic activities. With respect to anthropogenic activities, motor vehicle travel, air travel, consumption of fossil fuels for power generation, industrial processes, heating and cooling, landfills, agriculture, and wildfire are the primary sources of GHG emissions. The effects of GHG emissions and concentrations in the atmosphere have resulted in the adoption of governmental policies and regulations on federal, state and local levels that are intended to reduce GHG emissions by development projects, transportation and other activities.

4.7.3 Regulatory Setting

State

California Assembly Bill 32 (AB 32)

In September 2006, Governor Arnold Schwarzenegger signed AB 32, the California Climate Solutions Act of 2006, which required that statewide GHG emissions be reduced to 1990 levels by the year 2020. This reduction was to be accomplished through an enforceable statewide cap on GHG emissions that was to be started in 2012. To effectively implement the cap, AB 32 directs CARB to develop and implement regulations to reduce statewide GHG emissions from stationary sources. In November 2007, CARB completed its estimates of 1990 GHG levels and established the amount of 427 million metric tons of carbon dioxide equivalent ($MTCO_2e$) as the total statewide aggregated greenhouse gas 1990 emissions level and 2020 emissions limit. The California GHG Emissions Inventory and Trends discussion provided below summarizes the State's progress in reducing GHGs based on information collected through various AB 32 programs.

Senate Bill 32 (SB 32)

Executive Order B-30-15 was issued by Governor Brown on April 29, 2015, establishing a new California goal to reduce greenhouse gas emissions to 40 percent below 1990 levels by 2030 and ensuring the state will continue its efforts to reduce carbon pollution. This 40% target was codified through Senate Bill 32 (2016), which adds section 38566 to the Health and Safety Code and requires that CARB ensure statewide GHG emissions meet the 40% reduction target no later than December 31, 2030.

California Climate Change Scoping Plan

AB 32 required the California Air Resources Board (CARB or Board) to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated at least every five years. Since 2008, there have been two updates to the Scoping Plan. Each of the Scoping Plans have included a suite of policies to help the State achieve its GHG targets, in large part leveraging existing programs whose primary goal is to reduce harmful air pollution.

The First Update to the (2013) Scoping Plan was approved CARB in 2014, and built upon the initial (2008) Scoping Plan with new strategies and recommendations. The First Update identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update sets the groundwork to reach long-term goals set forth in Executive Order S-3-05. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

In November 2017, CARB released the Final 2017 Scoping Plan Update, which identifies the State's post-2020 reduction strategy. The Final 2017 Scoping Plan Update reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH4 emissions from agricultural and other wastes. The Final 2017 Scoping Plan Update establishes a new emissions limit of 260 MMT CO2e for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030.

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH4, black carbon, and fluorinated gases); and an increased focus on integrated land use planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources.

The Final 2017 Scoping Plan Update also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part

of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO2e (MTCO2e) or less per capita by 2030 and 2 MTCO2e or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

California Green Building Standards Code

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011, and is administered by the California Building Standards Commission (BSC). CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that have become effective on January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided, they establish a minimum 65% diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The 2019 CALGreen standards are applicable to the project.

Greenhouse Gas Vehicle Emission Standards under Assembly Bill 1493 of 2002

California AB 1493, enacted on July 22, 2002, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. Implementation of the regulation was delayed by lawsuits filed by automakers and by the EPA's denial of an implementation waiver. The EPA subsequently granted the requested waiver in 2009, which was upheld by the U.S. District Court for the District of Columbia in 2011.

The standards phase in during the 2009 through 2016 model years. When fully phased in, the near-term (2009–2012) standards will result in about a 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards will result in about a 30% reduction. Several technologies stand out as providing significant reductions in emissions at favorable costs. These include discrete variable valve lift or camless valve actuation to optimize valve operation rather than relying on fixed valve timing and lift as has historically been done; turbocharging to boost power and allow for engine downsizing; improved multi-speed transmissions; and improved air conditioning systems that operate optimally, leak less, and/or use an alternative refrigerant.

The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars program. The Advanced Clean Car program combines the control of smog-causing pollutants and GHG emissions into a single coordinated

package of requirements for model years 2017 through 2025. The regulation will reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules will clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric cars, newly emerging plug-in hybrid electric vehicles (EV) and hydrogen fuel cell cars. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

California GHG Emissions Inventory and Trends

California's annual statewide GHG emission inventory is an important tool for establishing historical emission trends and tracking California's progress in reducing GHGs. In concert with data collected through various California Global Warming Solutions Act (AB 32) programs, the GHG inventory has been considered critical in demonstrating the state's progress in achieving the statewide GHG target. The inventory provides estimates of anthropogenic GHG emissions within California. CARB is responsible for maintaining and updating California's GHG Inventory.

On July 11, 2018, CARB announced in a press release (No. 18-37) that greenhouse gas pollution in California fell below 1990 levels for the first time since emissions peaked in 2004, an achievement roughly equal to taking 12 million cars off the road or saving 6 billion gallons of gasoline a year. Moreover, according to the CARB report on California Greenhouse Gas Emissions for 2000 to 2017 (published in 2019), which tracks the trends of GHG emissions, California's GHG emissions have followed a declining trend between 2007 and 2017. In 2017, emissions from GHG emitting activities statewide were 424 million metric tons of CO2 equivalent ($MMTCO_2e$), 5 $MMTCO_2e$ lower than 2016 levels and 7 MMTCO2e below the 2020 GHG Limit of 431 $MMTCO_2e$. The largest reductions are attributed to the electricity sector, which continues to see decreases as a result of the state's climate policies. The transportation sector remains the largest source of GHG emissions in the state, but saw a 1 percent increase in emissions in 2017, the lowest growth rate over the previous 4 years.

On August 12, 2019, California Governor Gavin Newsom announced in a press release (No. 19-35) that GHG emissions in California continued to fall ahead of schedule in 2017 as the state's economy grew ahead of the national average, according to the California Air Resources Board's latest state inventory of climate-changing emissions. The data also shows that for the first time since California started to track GHG emissions, the state power grid used more energy from zero-GHG sources like solar and wind power than from electrical generation powered by fossil fuels. The press release also included the following highlights:

Electricity: Emissions from electricity generation made up about 15 percent of 2017 statewide greenhouse gas emissions. In 2017, those emissions fell nine percent from 2016, the largest decline of any economic sector. A large increase in zero-emission energy resources drove the reduction. Those clean sources powered 52 percent of all California's electricity consumed in 2017.

Transportation: Vehicle tailpipe emissions accounted for 37 percent of California's 2017 GHG emissions. Those emissions rose but showed signs of leveling off. The 2017 increase was 0.7 percent, down from two percent the preceding year. Most of the greenhouse gas emissions increase came from passenger vehicles.

Industry: Industrial emissions over multiple sectors showed a slight reduction or remained flat. California's industrial sectors generated 21 percent of state GHGs in 2017. Oil & gas refineries and hydrogen production were responsible for one-third of those emissions. The rest came mostly from oil & gas extraction, cement plants, glass manufacturers and large food processors.

The CARB report on California Greenhouse Gas Emissions for 2000 to 2019 (2021 Edition) reports that in 2019 emissions from GHG emitting activities statewide were 418.1 million metric tons of carbon dioxide equivalent (MMTCO2e), 7.1 MMTCO2e lower than 2018 levels and almost 13 MMTCO2e below the 2020 GHG Limit of 431 MMTCO2e. The 2021 report also indicates that transportation emissions have continued to decline in 2019 as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel (up 61 percent from 2018), making diesel fuel bio-components (biodiesel and renewable diesel) 27 percent of total on-road diesel sold in California. Total electric power emissions decreased by almost 7 percent in 2019, due to a continuing increase in renewable energy, including a 46 percent increase in available hydropower in 2019.

Regional and Local

Mojave Desert Air Quality Management District

Mojave Desert Air Quality Management District (MDAQMD) has jurisdiction over the desert portion of San Bernardino County and the easternmost portion of Riverside County, including the Palo Verde Valley and City of Blythe. The Palo Verde Valley portion of eastern Riverside County was annexed by the MDAQMD from the South Air Quality Management District (SCAQMD) effective July 1, 1994, pursuant to provisions of H&SC 41210(c) and MDAQMD Resolution 94-03. Geographically, the Palo Verde Valley region occupies the southeast corner of the MDAQMD jurisdiction with the greatest separation from the populated regions located to the west. As the air pollution control agency, MDAQMD has primary responsibility for regulating stationary sources of air pollution located within its jurisdictional boundaries, including the Mojave Desert Air Basin (MDAB). MDAQMD also implements air quality programs required by state and federal mandates, enforces rules and regulations based on air pollution laws and educates businesses and residents about their role in protecting air quality and the risks of air pollution. MDAQMD has prepared the *CEQA and Federal Conformity Guidelines* (February 2020) to support environmental analysis or review documents within its jurisdiction by providing background information and guidance on the analysis approach. These guidelines establish the emissions-based GHG thresholds to which the project emission levels will be compared. In addition to the thresholds, MDAQMD also maintains the *Rules and Regulations of the Mojave Desert Air Quality Management*

District (MDAQMD Rule Book), which includes the general provisions, permits, fees, prohibitions, and other requirements that must be undertaken by permit applicants for achieving compliance and project authorization.

The MDAQMD CEQA and Federal Conformity Guidelines establish a GHG threshold of 100,000 Tons CO2e (90,718.5 MT CO2e) per year as the basis for determining significant emissions. The GHGA quantification will be compared against this MDAQMD standard.

4.7.4 Project Impact Analysis

Thresholds of Significance

The following thresholds or criteria are derived from Appendix G of the CEQA Guidelines, and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064 of the CEQA Guidelines. For analysis purposes, development of the Edelweiss Sustainable Farms would have a significant effect on greenhouse gas emissions if it is determined that the project will:

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

Methodology

This GHG analysis relies on the quantitative results and associated findings of the Edelweiss Sustainable Farms Greenhouse Gas Analysis (GHGA), completed by Urban Crossroads on December 6, 2021. The project parameters that were accounted for in the GHGA emissions calculations consisted of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. As a conservative approach, the GHGA assumed that the project will operate 24-hours for seven days per week. The results were compared against the emissions-based significance threshold established in the MDAQMD CEQA and Federal Conformity Guidelines, which is 100,000 Tons CO2e (90,718.5 MT CO2e) per year.

Project Impact

a. Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment

Project implementation will result in short-term construction and long-term operational GHG emissions that have been calculated based on the following parameters.

Construction Emissions

Project construction activities would generate CO2 and CH4 emissions. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

The GHG and Air Quality studies assumed for construction to commence in early 2022 and last through August 2023. The construction schedule utilized in the AQIA represents a "worst-case" analysis scenario. Should construction occur after the respective dates, emission factors are expected to decrease due to emission regulations becoming more stringent. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA Guidelines.

Table 4.7-1 Construction Duration

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2022	01/14/2022	10
Grading	01/29/2022	03/04/2022	35
Building Construction	3/05/2022	08/04/2023	370
Paving	03/01/2023	08/04/2023	113
Architectural Coating	03/01/2023	08/04/2023	113

Construction Equipment: The GHG and Air Quality studies relied on default construction equipment factors determined by CalEEMod based on the project land use, size, and duration. This included multiple crawler tractors, rubber-tired dozers, excavators, graders, scrapers, cranes, forklifts, generator sets, welders, pavers, paving equipment, rollers, and air compressors operating in 8-hour shifts and in variable capacities based on the phase of construction.

GHG emissions resulting from construction activities were quantified and amortized over the life of the project using MDAQMD's recommended methodology. This process involved calculating the total GHG emissions for construction activities, then dividing that quantity by a 30-year project life, then adding that quantity to the annual operational phase GHG emissions. The annual and amortized construction emissions are presented in **Table 4.7-2.**

Table 4.7-2 Summary of Construction Greenhouse Gas (GHG) Emissions

Year	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
2022	1,193.89	0.12	0.06	1,215.09
2023	948.60	0.10	0.04	963.92
Total Annual Construction Emissions	2,142.49	0.22	0.10	2,179.01
Construction emissions amortized over 30 years	71.42	7.33E-03	3.33E-03	72.63

Operational Emissions

Operational activities associated with the proposed Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources: Building Energy Use; Water Supply, Treatment and Distribution; Solid Waste; and Mobile Source Emissions.

Area Source Emissions

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

Energy Source Emissions

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. The proposed project would reduce energy use through the installation of at least 7,000 sf of solar panels on each building. Unless otherwise noted, CalEEMod default parameters were used.

Mobile Source Emissions

Project-related mobile impacts derive primarily from vehicle trip characteristics obtained from the Traffic Impact Study.

Water Supply, Treatment and Distribution

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Based on data provided by the project applicant, it is estimated that the cannabis cultivation and processing portion of the proposed Project would utilize approximately 100 acre-feet of water per year based on similar land uses. The project is expected to involve water efficiency and reduction practices through the use of reclaimed water for irrigation and landscaping purposes. To generate the most conservative results, the CalEEMod analysis in the GHGA relied on default parameters for the administrative office land uses.

Solid Waste

Cultivation and processing and administrative office land uses land uses would result in the generation and disposal of solid waste. A large percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. Although the project is expected to involve recycling and composting practices, the GHG analysis and modeling accounted for CalEEMod default emissions associated with the disposal of solid waste.

Table 4.7-3 Project (GHG) Emissions

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	71.42	7.33E-03	3.33E-03	72.63
Area Source	9.77E-03	3.00E-05	0.00	0.01
Energy Source	24,701.40	2.09	0.25	24,828.83
Mobile Source	2,906.91	0.15	0.14	2,953.02
Waste	132.81	7.85	0.00	329.03
Water Usage	37.27	0.43	0.01	51.00
Total CO_2e (All Sources)	**28,234.52**			
MDAQMD Threshold	**90,718.5**			
Threshold Exceeded?	**No**			

As shown in **Table 4.7.3** resulting from the CalEEMod calculations, the proposed project is expected to generate approximately 28,234.52 $MTCO_2e$ per year from construction, area, energy, mobile sources, waste, and water usage sources. As such, the project GHG emissions would comply with the threshold of significance set at 90,718.5 $MTCO_2e$ per year. As indicated by the GHG emissions inventory and trends highlighted in CARB's press release no. 18-37, the regional and statewide strategies are helping California reduce greenhouse gas pollution, which has fallen below 1990 levels for the first time since emissions

peaked in 2004, an achievement roughly equal to taking 12 million cars off the road or saving 6 billion gallons of gasoline a year. Having been evaluated against the regionally established GHG threshold and found to be consistent, the project will not generate greenhouse gas emissions, directly or indirectly, that have a significant effect on the environment. Therefore, project impacts related to direct or indirect GHG emissions are considered less than significant.

b. Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases

As substantiated herein, the project's annual GHG emission levels at 28,234.52 $MTCO_2e$ would occur considerably below the MDAQMD significance threshold at 90,718.5 $MTCO_2e$ and therefore would be in concert with AB 32 and international efforts to address global climate change that would substantially lessen cumulative GHG emissions impacts. The project applicant would not actively interfere with any future mandates enacted or promulgated to assist in meeting greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05, Executive Order B-30-15, or SB 32. On this basis, the project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

As previously discussed, under Assembly Bill 32 passed in 2006, California must reduce its emissions to 1990 levels (431 million metric tons) by 2020. Senate Bill 32, signed in 2016, requires the state to go even further than AB 32 and cut emissions 40 percent below 1990 levels by 2030—the most ambitious carbon goal in North America. As announced in multiple press releases by the California Governor and demonstrated in the most recent CARB report on emissions trends, California statewide GHG emissions dropped below the 2020 GHG Limit in 2016 and have remained below the 2020 GHG Limit since then, generally dropping since 2004. In 2019, emissions from GHG emitting activities statewide were 418.1 million metric tons of carbon dioxide equivalent (MMTCO2e), 7.1 MMTCO2e lower than 2018 levels and almost 13 MMTCO2e below the 2020 GHG Limit of 431 MMTCO2e. The 2021 report also indicates that transportation emissions have continued to decline in 2019 as they had done in 2018, with even more substantial reductions due to a significant increase in renewable diesel (up 61 percent from 2018), making diesel fuel bio-components (biodiesel and renewable diesel) 27 percent of total on-road diesel sold in California. Total electric power emissions decreased by almost 7 percent in 2019, due to a continuing increase in renewable energy, including a 46 percent increase in available hydropower in 2019.

Therefore, the project would not generate significant levels of GHG emissions, and will not conflict with an applicable plan, policy or regulation adopted for the purpose of reducing GHG emissions. Less than significant impacts are anticipated.

4.7.5 Cumulative Impacts

Due to the global nature of the assessment of GHG emissions and the effects of global climate change, GHG emissions analysis, by its nature, is a cumulative impact analysis. Therefore, the information and analysis provided above in Section 4.7.4 to determine project-level impacts applies here and the project's contribution to global climate change would not be cumulatively considerable.

CEQA Guidelines section 15064.4 confirms that the analysis of climate change impacts is cumulative and, states: "In determining the significance of a project's greenhouse gas emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change." Amortized construction and operational emissions of the proposed project would not exceed established MDAQMD thresholds for GHG emissions, therefore, potential cumulative impacts are considered less than significant.

4.7.6 Mitigation Measures

The project does not exceed GHG thresholds, therefore no mitigation measures are required.

4.7.7 Level of Significance After Mitigation

The project does not exceed GHG thresholds, therefore no mitigation measures are required.

4.7.8 Resources

1. Rules and Regulations of the Mojave Desert Air Quality Management District (MDAQMD Rule Book)
2. MDAQMD California Environmental Quality Act (CEQA) and Federal Conformity Guidelines, February 2020
3. Edelweiss Sustainable Farms Greenhouse Gas Analysis (GHGA), prepared by Urban Crossroads December 6, 2021
4. MDAQMD Frequently Asked Questions about Cannabis, Permitting and the Cannabis Odor Compliance Form, 2019
5. MDAQMD California Business & Professions Code, Division 10 operation facility cannabis odor compliance plan form
6. California Greenhouse Gas Emissions for 2000 to 2019, Trends of Emissions and Other Indicators, 2019 Edition, California Air Resources Board; Release No. 18-37 & 19-35, California Air Resources Board Press Release, July 2018 and August 2019

4.8 Hazards and Hazardous Materials

4.8.1 Introduction

This section describes the existing setting and proposed improvements to the project site and subsequent operations that could result in the use, transport or disposal of hazardous materials. This section also analyzes impacts associated with the project that may potentially affect public health and safety or degrade the environment. The analysis is based on the information contained in the *Blythe General Plan* and *General Plan Final Program EIR* regarding land uses within the City, as well as policy references provided by the Department of Toxic Substances, the State Water Resources Control Board, and the Environmental Protection Agency. Additional federal, State, and local programs and regulations related to hazards and the use of hazardous materials are referenced in this section, in addition to information in the Phase I Environmental Site Assessment (ESA) that was performed for the project site by MSA Consulting, Inc. in October 2020 (**Appendix J**).

Prior to the preparation of the Draft EIR, an Initial Study was prepared in advance of the Notice of Preparation (NOP). The Edelweiss Sustainable Farms Initial Study and NOP are included in **Appendix A** of this Draft EIR. Following the screening criterion related to hazards and hazardous materials in the Initial Study, threshold topics "c" and "e" do not require additional analysis in this Draft EIR.

Threshold "c": *Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school:*

- There are no existing or proposed schools within one-quarter mile of the project. The closest school to the proposed project is Twin Palms High School, which is located approximately 0.59 miles northeast of the project.

Threshold "e": *For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area:*

- The project is not located near an existing airport or airport land use plan. The nearest airport facility to the project is Blythe Airport, located approximately 5.10 miles to the northwest. As a result, the project is located outside of the airport's influence and planning area. Flights approaching and departing the Blythe Airport may fly over the City and the project site with intermittent frequency; however, no hazards or hazardous materials impacts are anticipated.

Issue areas identified as having no impact are further discussed in **Chapter 6.0, *Effects Not Found to Be Significant*** of this Draft EIR.

4.8.2 Existing Conditions

Hazardous Materials

The Code of Federal Regulations (CFR Title 40, Part 261) defines hazardous materials based on ignitability, reactivity, corrosivity, and/or toxicity properties. The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive and/or corrosive, which have the capacity of causing harm or a health hazard during normal exposure or an accidental release. As a result, the use and management of hazardous or potentially hazardous substances is regulated under existing federal, State and local laws.

Hazardous Waste

The United States Environmental Protection Agency (EPA) simply defines hazardous waste as a waste with properties that make it dangerous or capable of having a harmful effect on human health or the environment. Hazardous waste is generated from sources ranging from industrial manufacturing process wastes to batteries and may come in many forms, including liquids, solids, gases, and sludges. These can include everyday commercial products, such as pesticides, cleaning fluids, and household sprays, as well as byproducts of manufacturing processes. The EPA has classified hazardous waste into four categories:

- Listed wastes – wastes from common manufacturing and industrial processes, waste from specific industries such as petroleum refining or pesticide manufacturing, and discarded commercial products;
- Characteristic wastes – non-listed wastes that exhibit ignitability, corrosively, reactivity, and toxicity;
- Universal wastes – batteries, mercury-containing equipment, and fluorescent lamps and bulbs; and
- Mixed wastes – radioactive and hazardous waste components.

A hazardous material may become hazardous waste upon its accidental release into the environment. All hazardous wastes must be discharged into a Class I landfill. No Class I landfill is currently operated within Riverside County. Hazardous wastes generated within Riverside County are transported to Kern County or Santa Barbara County, where active Class I landfills are located. Some waste is also transported out of the State.

The Palo Verde Valley is characterized by historical and ongoing agricultural operations that involve use of a wide variety of chemicals, including pesticides, herbicides, fertilizer, fuel, oil and solvents. As a result, traces of previous agricultural-related chemicals may be present at various undeveloped sites throughout the City of Blythe. Per the City of Blythe General Plan, Phase I ESA are to be performed to

assess commercial and residential development projects proposed to be developed on lands formerly used for agricultural operations. Results from other ESAs in the area indicate that near surface soils often contain trace residue of pesticides used on the fields from decades of agricultural use.

The presence and concentration of near surface pesticides can only be accurately characterized by site-specific sampling, testing and assessment of exposure risk to future inhabitants. Two potential outcomes may occur based on the findings: (1) no further action recommended with respect to potential residual pesticides in near surface soils; or (2) additional action through further testing and mitigation may be required. As a result, it has become the City's policy to require a Phase I ESA for any land development project in the City of land that has historically been used in agricultural or industrial operations. Phase II Assessments are subsequently performed when the Phase I ESA indicates the presence of hazardous materials. The goal of this policy is to insure that potential public health and safety issues are addressed and mitigated.

Additional chemicals and hazardous materials are present throughout the City, but are widely varied in terms of both quantity and type. Uses such as light industry, automobile fueling stations, dry cleaners, automotive service shops, and hospitals routinely utilize petroleum hydrocarbon fuels, solvents and other toxic substances, and also generate hazardous wastes which must be properly disposed of in compliance with strict federal and State regulations. Households also utilize and store materials which could be considered hazardous, although usually not of the same type and quantity as commercial and industrial uses. Homeowners need to be properly informed about the proper use, storage, and disposal of consumer goods containing hazardous materials. The County of Riverside Health Services Agency, Department of Environmental Health, provides information on proper disposal methods and locations for household hazardous waste on their website.

Development activities have the potential to encounter previously unknown hazardous materials contamination from historical use of a property. However, such contamination can be mitigated by existing federal, State, and local policies and procedures implemented by the designated local enforcement agency.

Hazardous wastes require special handling and disposal methods to reduce their potential to damage public health and the environment. Manufacturer's specifications dictate the proper use, handling, and disposal methods for the specific substances. All hazardous waste poses a threat to humans and the environment, and therefore is regulated by federal, State, and local programs. In most cases, it is a violation of federal or State law to improperly store, apply, transport, or dispose of hazardous materials and waste.

Project Site

The Edelweiss Sustainable Farms project is located on active agricultural land. The project would result in development of twelve buildings for the cultivation of cannabis, and additional

improvements including landscaping throughout, two stormwater retention basins, paved drive aisles, and paved parking areas.

Offsite improvements

In addition to the proposed onsite development, project implementation will also include the project's connection to the City's existing sewer infrastructure. The proposed point of connection is located approximately 1,200 linear feet east of the project site along Hobsonway.

Local Schools

The project site is located within the boundary of the Coachella Valley Unified School District. The closest school to the proposed project is Twin Palms High School, which is located approximately 0.59 miles northeast of the project site at 811 West Chanslor Way.

Public Airports/Private Airstrips

The nearest airport facility to the project is Blythe Airport, located at 17240 Hobsonway approximately 5.10 miles to the northwest. The project site is outside the Airport Land Use Compatibility Zone.

Urban/Wildland Interface

The project site is surrounded by developed urban areas to the east, and agricultural lands to the north, west, and south. Wildland areas are located outside of the City boundaries in the surrounding mountain ranges. The Big Maria Mountains are located north of the City, McCoy Mountain is located west of the City, Mule Mountain and Palo Verde Mountain are located southwest of the City, Trigo Mountain is located south of the City, and Dome Rock Mountains and Cunningham Mountain to the east. Wildland environments are typically located at the slopes and adjacent to mountain ranges. The project is not located adjacent to the mountain slopes and therefore, not located near wildland interface.

4.8.3 Regulatory Setting

Key federal, State, and local laws, regulations and policies that are relevant to hazards and hazardous materials are summarized below. The regulatory setting establishes a framework for addressing all aspects of hazards and hazardous materials that would be affected by construction and operations of the proposed Edelweiss Sustainable Farms project.

Federal Programs

United States Environmental Protection Agency

The EPA is a federal agency with the mission to protect human health and the environment by developing and enforcing regulations, providing grants, studying environmental issues, sponsoring partnerships, publishing information, and educating people about the environment.

According to the EPA, hazardous wastes are characterized as wastes that exhibit any one or more of the following characteristic properties: ignitability, corrosivity, toxicity, or reactivity. The EPA also maintains a list of hazardous materials and procedures when dealing with hazardous waste and materials. Various rules regulate the use, storage, transportation and disposal of hazardous materials.

A waste is determined to be hazardous if it is specifically listed on one of four lists (the F, K, P and U lists) found in title 40 of the Code of Federal Regulations (CFR) in Section 261 and discussed in further detail below:

- **The F-list** identifies wastes from common manufacturing and industrial processes as hazardous from non-specific sources (40 CFR Section 261.31). They can be divided into seven groups depending on the type of manufacturing or industrial operation that creates them. These groups include spent solvent wastes, electroplating and other metal finishing wastes, dioxin-bearing wastes, chlorinated aliphatic hydrocarbons production, wood preserving wastes, petroleum refinery wastewater treatment sludges, and multisource leachate.
- **The K-list** identifies hazardous wastes from specific sectors of industry and manufacturing and are considered source-specific wastes. To qualify as a K-listed hazardous waste, a waste must fit into one of the following industries: wood preservation, organic chemicals manufacturing, pesticides manufacturing, petroleum refining, veterinary pharmaceuticals manufacturing, inorganic pigment manufacturing, inorganic chemical manufacturing, explosives manufacturing, iron and steel production, primary aluminum production, secondary lead processing, ink formulation, and coking (processing of coal to produce coke).
- **The P and U lists** designate as hazardous waste pure and commercial grade formulations of certain unused chemicals that are being disposed. For a waste to be considered a P- or U-listed waste it must meet the following three criteria: (1) the waste must contain one of the chemicals listed on the P or U list; (2) the chemical in the waste must be unused; and (3) the chemical in the waste must be in the form of a commercial chemical product. The P-list identifies acute hazardous wastes from discarded commercial chemical products, while the U-list identifies hazardous wastes from discarded commercial chemical products.

More recent EPA efforts and responsibilities for managing hazardous waste include the management of wastes from homeland security incidents. The Waste Management for Homeland Security Incidents Act requires EPA to provide technical support to federal, State, local, and tribal authorities on waste management and cleanup efforts resulting from natural disasters, terrorist attacks, major accidents, and disease outbreaks. EPA's main responsibility is to promote pre-planning efforts to deal with hazardous waste disasters and encourage various stakeholders to prepare for natural and man-

made disasters. EPA is also required to review emergency response plans for federal agencies, and participate in exercises with federal, State, local and tribal emergency responders.

Resource Conservation and Recovery Act

The EPA has the authority and responsibility to regulate hazardous waste through the Resource Conservation and Recovery Act of 1976 (RCRA). Through RCRA, EPA is responsible for monitoring the generation, transportation, treatment, storage, and disposal of hazardous waste. Amendments to RCRA, including the 1984 Federal Hazardous and Solid Waste Amendments, and those established in 1986, required EPA to increase enforcement of underground storage tanks for petroleum and other hazardous substances, focus on waste minimization programs, such as phasing out hazardous wastes from landfills, and finally mandating corrective measures regarding the release of hazardous waste.

More recent EPA efforts and responsibilities for managing hazardous waste include management of wastes from homeland security incidents. EPA's main responsibility is to promote pre-planning efforts to deal with hazardous waste disasters and encourage various stakeholders to prepare for natural and man-made disasters. EPA is also required to review emergency response plans for federal agencies, and participate in exercises with federal, State, local and tribal emergency responders.

Hazardous Materials Transport Regulations

The United States Department of Transportations' (DOT) purpose is to provide the safest, most efficient and modern transportation system to improve the quality of life of people and communities and increase the productivity and competitiveness of workers and businesses in the nation.

The Pipeline and Hazardous Materials Safety Administration's (PHMSA) Office of Hazardous Materials Safety is a component of the U.S. DOT that carries out a national safety program, including security matters, to protect against the risks to life and property inherent in the transportation of hazardous materials in commerce by all transportation modes. This is accomplished by developing, proposing and implementing regulatory policy initiatives and regulations governing the safe and secure transportation of hazardous materials. The PHMSA conducts safety inspections and investigations to ensure transportation safety and security by conducting compliance inspectors and incident and accident response and investigations.

Comprehensive Environmental Response, Compensation, and Liability Act

The Comprehensive Environmental Response, Compensation, and Liability Act, otherwise known as CERCLA or Superfund, was established to provide a federal "Superfund" to clean up uncontrolled or abandoned hazardous-waste sites as well as accidents, spills, and other emergency releases of pollutants and contaminants into the environment. Through CERCLA, the EPA was given power to seek out those parties responsible for any release and assure their cooperation in the cleanup.

The EPA cleans up orphan sites when potentially responsible parties cannot be identified or located, or when they fail to act. Through various enforcement tools, the EPA obtains private party cleanup through orders, consent decrees, and other small party settlements. The EPA also recovers costs from financially viable individuals and companies once a response action has been completed. Superfund site identification, monitoring, and response activities in states are coordinated through state environmental protection or waste management agencies. CERCLA was reauthorized and expanded in 1986.

Emergency Planning and Community Right-To-Know Act

The Emergency Planning and Community Right-To-Know Act (EPCRA) was enacted in 1986 and is designed to help local communities protect public health, safety, and the environment from chemical hazards. Congress requires each state to appoint a State Emergency Response Commission (SERC) as a part of EPCRA. The SERCs are required to divide their states into Emergency Planning Districts and to name a Local Emergency Planning Committee (LEPC) for each district. The EPCRA requires industry to report on the storage, use and releases of hazardous substances to federal, State, and local governments.

Clean Water Act

The Clean Water Act (CWA) was established in 1972 as the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the EPA has implemented pollution control programs such as setting wastewater standards for industries. The EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

It is unlawful under the CWA to discharge any pollutant from a point source, which is a discrete conveyance such as pipes or man-made ditches, into navigable waters unless a permit is obtained. The National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Compliance monitoring under the NPDES Program encompasses a range of techniques in order to address the most significant problems and to promote compliance among the regulated community.

EPA Enforcement and Compliance History Online

EPA's Enforcement and Compliance History Online (ECHO) is a national database that focuses on inspection, violation, and enforcement data for the Clean Air Act (CAA), CWA and RCRA and also includes Safe Drinking Water Act (SDWA) and Toxics Release Inventory (TRI) data. ECHO can be used to search for facilities, investigate pollution sources, search for EPA enforcement cases, examine and create enforcement-related maps, and analyze trends in compliance and enforcement data.

State Programs

Hazardous Waste Control Law

The Hazardous Waste Control Law (HWCL) is the primary hazardous waste management system in the State of California. The HWCL specifies that generators have the primary duty to determine whether their wastes are hazardous and to ensure their proper management. The HWCL also establishes criteria for the reuse and recycling of hazardous wastes used or reused as raw materials. The HWCL standards exceeds federal requirements by mandating source reduction planning, and has much broader requirement for permitting facilities that treat hazardous waste. It also regulates a number of types of waste management activities that are not covered by the RCRA.

Tanner Act

Although there are numerous State policies dealing with hazardous waste materials, the most comprehensive is the Tanner Act (AB 2948) that was adopted in 1986. The Tanner Act governs the preparation of hazardous waste management plans and the siting of hazardous waste facilities in the State of California. The act also mandates that each county adopt a Hazardous Waste Management Plan. To be in compliance with the Tanner Act, local or regional hazardous management plans need to include provisions that define (1) the planning process for waste management, (2) the permit process for new and expanded facilities, and (3) the State appeal process available for certain local decisions.

California Environmental Protection Agency

As a branch under the EPA, the California Environmental Protection Agency (CalEPA) has broad jurisdiction over hazardous materials management. CalEPA's mission to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality is achieved by developing, implementing and enforcing environmental laws. These laws regulate air, water, and soil quality, pesticide use, and waste recycling and reduction. CalEPA oversees and coordinates with the Air Resources Board (ARB), Department of Resources Recycling and Recovery (CalRecycle), Department of Pesticide Regulation (DPR), Department of Toxic Substances Control (DTSC), Office of Environmental Health Hazard Assessment (OEHHA), and the State Water Resources Control Board (SWRCB) to improve California's environment.

Department of Toxic Substance Control

DTSC is responsible for protecting public health and the environment from hazardous waste generated in California. It regulates under the authority of the federal RCRA of 1976 and the California Health and Safety Code. DTSC operates a variety of programs including the following:

- Overseeing cleanups at improperly managed waste sites.

- Ensuring those who generate, handle, transport, store and dispose of hazardous waste do so properly.
- Enforcement actions against those who fail to manage hazardous waste appropriately.
- Exploring and promoting pollution prevention and encouraging reuse and recycling.
- Evaluating soil, water and air samples at sites and developing new analytical methods.
- Practicing other environmental sciences, including toxicology, risk assessment, and technology development.
- Involving the public in DTSC's decision-making.

Within CalEPA, the DTSC has primary regulatory responsibility for hazardous waste management and cleanup to protect the public and the environment from exposures to hazardous wastes. The DTSC achieves this by regulating hazardous waste and discovering ways to reduce its production. Enforcement of regulations for the generation, transport, and disposal of hazardous materials are delegated to local jurisdictions, in agreements with the DTSC. The DTSC regulates hazardous waste primarily under the authority of the federal RCRA of 1976 and the California Health and Safety Code.

DTSC is required to compile and update each year, or as appropriate, a list of hazardous waste sites pursuant to the Cortese Lists under Government Code Section 65962.5(a). DTSC has created the EnviroStor database of properties that may be contaminated throughout California.

EnviroStor

The EnviroStor database identifies sites with known contamination or sites for which there may be reasons to investigate further. It includes the identification of formerly contaminated properties that have been released for reuse; properties where environmental deed restrictions have been recorded to prevent inappropriate land uses; and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Government Code Section 65962.5 (Cortese List)

The provisions of Government Code Section 65962.5 are commonly referred to as the Cortese List. The Cortese List is a planning document used by State and local agencies to provide information about hazardous materials release sites. Government Code Section 65962.5 requires CalEPA to develop an updated list annually, at minimum. The DTSC is responsible for a portion of the information contained in the Cortese List. Other State and local government agencies are required to provide additional hazardous material release information for the Cortese List.

State Water Resources Control Board (SWRCB)

SWRCB is responsible for regulating wastewater discharges to surface waters and groundwater. This includes discharges from all construction, industrial, municipal, and agricultural activities. The SWRCB

delegates these responsibilities to various regional water quality control boards (RWQCB) throughout California. The City of Blythe is located in Region 7 Colorado River Basin RWQCB.

Water Boards' Cannabis Cultivation Program

The Cannabis Cultivation Program addresses potential water quality and quantity issues related to cannabis cultivation. The Cannabis Cultivation Program includes The Cannabis Cultivation Policy which is intended to ensure that the diversion of water and discharge of waste associated with cannabis cultivation does not have a negative impact on water quality, aquatic habitat, riparian habitat, wetlands, and springs. The Cannabis Policy requirements are primarily implemented through the Water Boards' Cannabis Cultivation General Order and Cannabis SIUR permits in addition to the California Department of Food and Agriculture's CalCannabis Cultivation Licensing Program.

GeoTracker

GeoTracker is a database maintained by the SWRCB that provides online access to environmental data. It serves as the management system for tracking regulatory data on sites that can potentially impact groundwater, particularly those requiring groundwater cleanup and permitted facilities, such as operating underground storage tanks and land disposal sites.

Hazardous Material Management Plans

In January 1996, CalEPA adopted regulations implementing a Unified Hazardous Waste and Hazardous Materials Management Regulatory Program (Unified Program). The six program elements of the Unified Program are hazardous waste generators and hazardous waste on-site treatment, underground storage tanks, above-ground storage tanks, hazardous material release response plans and inventories. The program is implemented at the local level by a local agency, the Certified Unified Program Agency (CUPA). The CUPA is responsible for consolidating the administration of the six program elements within its jurisdiction.

State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored and disposed of, and, in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment.

California Hazardous Material Release Response Plan and Inventory Law

Chapter 6.95 of the Health and Safety Code (HSC) requires that in order to protect the public health and safety and the environment, it is necessary to establish business and area plans relating to the handling and release or threatened release of hazardous materials (Article 1), as well as implement regulations regarding hazardous material management (Article 2), emergency planning and Community Right-to-Know Act of 1986 (Article 3) and the California Toxic Release Inventory Program Act of 2007 (Article 4).

California Emergency Response Plan

California has developed an emergency response plan to coordinate emergency services provided by federal, State, and local governments and private agencies. Response to hazardous materials incidents is one part of this plan. The plan is managed by the Governor's Office of Emergency Services (Cal OES), which coordinates the responses of other agencies, including CalEPA, California Highway Patrol (CHP), RWQCB, and the Riverside County Emergency Management Department.

California Occupational Safety and Health Administration

The Division of Occupational Safety and Health (DOSH), better known as Cal/OSHA, protects workers from health and safety hazards on the job in almost every workplace in California through its research, standards, enforcement, and consultation programs. Cal/OSHA enforces complaint and accident investigations, targeted and programmed inspections, citations, special orders and orders to take special action, orders prohibiting use, as well as permits, certifications, licenses, approvals, and classification.

California Department of Forestry and Fire Protection

The California Department of Forestry and Fire Protection (CAL FIRE) protects over 31 million acres of California's privately-owned wildlands and provides varied emergency services in 36 of the State's 58 counties via contracts with local governments. The department's Fire Protection Program consists of multiple activities including wildland pre-fire engineering, vegetation management, fire planning, education, and law enforcement. Typical fire prevention projects include brush clearance, prescribed fire, defensible space inspections, emergency evacuation planning, fire prevention education, fire hazard severity mapping, and fire-related law enforcement activities. CAL FIRE provides Fire Hazard Severity Zone Maps for State Responsibility Area lands and Very High Fire Hazard Severity Zone Maps for Local Responsibility Area lands for each county in California. These maps allow State and local agencies to identify areas susceptible to wildfire hazards.

California Certified Unified Program Agencies

The California CUPA is a collection of State and regional agencies in charge of regulating hazardous waste. They are responsible for the administration, permits, inspection and enforcement of various environmental and emergency management programs, including the Underground Storage Tank Program, the Aboveground Petroleum Storage Act Program, Hazardous Materials Release Response Plans, and Hazardous Waste Generator and Onsite Hazardous Waste Treatment Programs. The California Environmental Protection Agency (CalEPA) is responsible for administrating and certifying the CUPA's. Two State agencies that are also heavily involved with CUPA activities include the California DTSC and the SWRCB.

California Department of Cannabis Control

The Department of Cannabis Control (DCC) is the State agency that licenses, makes rules, and regulates cannabis businesses. DCC regulates the growing of cannabis plants; manufacture of cannabis products; transportation and tracking of cannabis goods throughout the State; sale of cannabis goods; events where cannabis is sold or used; and labeling of goods sold at retail. The DCC was created on July 1, 2021, by consolidating the three former State cannabis authorities: (1) Bureau of Cannabis Control, (2) CalCannabis Cultivation Licensing Division, and (3) Manufactured Cannabis Safety Branch.

California Department of Pesticide Regulation

The Department of Pesticide Regulation (DPR) develops guidelines for the use of pesticides in cannabis cultivation. The DPR is responsible for providing statewide guidance on the use of pesticides in the cultivation of cannabis; providing guidance to the Department of Cannabis Control on testing for pesticides; and requiring that pesticides used in cannabis cultivation comply with food and agricultural standards.

Regional and Local Programs

Regional Water Quality Control Board

The SWRCB is responsible for regulating wastewater discharges to surface waters and groundwater. This includes discharges from all construction, industrial, municipal, and agricultural activities. The SWRCB delegates these responsibilities to nine regional boards throughout California. The RWQCB acts under Cal EPA and is responsible for implementing regulations pertaining to management of soil and groundwater investigations and cleanup. RWQCB regulations are contained in Title 27 of the California Code of Regulations (CCR). Additional State regulations applicable to hazardous materials are contained in Title 22 of the CCR. Title 26 of the CCR is a compilation of those hazardous material, waste, and toxic-related regulations contained in CCR Titles 3, 8, 13, 17, 19, 22, 23, 24, and 27 that are applicable to hazardous materials.

The Colorado River Basin RWQCB is responsible for overseeing corrective actions associated with leaks and improper disposal from underground storage tanks, such as gas station tanks, and provides assistance to County of Riverside Department of Environmental Health on underground storage leaks.

Riverside County Department of Environmental Health

The Riverside County Department of Environmental Health (DEH) provides programs and services related to protecting public health, safety and the environment. Within the DEH are two divisions, District Environmental Service, and Environmental Protection and Oversight. The Environmental Protection and Oversight Division (EPO) is responsible for handling and regulating hazardous

materials, land use, water systems, underground storage tanks, solid waste and business emergency plans and is responsible for managing a list of all hazardous waste generators in the County. In the City of Blythe such generators of hazardous waste include golf courses, gas stations, dry cleaners, grocery stores, car dealerships and the City's maintenance facility yard.

Riverside County Hazardous Materials Management Division

The Riverside County DEH's Hazardous Materials Management Division was designated as the Riverside County CUPA. As CUPA for Riverside County, the Division manages the following elements of the Unified Program:

- Hazardous Waste Generators
- Hazardous Materials Business Plan Program (HMBP) and the Hazardous Materials Release Response Plan and Inventory Program
- Hazardous Materials Emergency Response Team
- Risk Management Prevention Program
- Underground Storage Tank (UST) Program
- Aboveground Petroleum Storage Act (APSA) Program

Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan

The Riverside County Multi-Jurisdictional Local Hazard Mitigation Plan (LHMP) identifies the County's hazards, review and assess past disaster occurrences, estimate the probability of future occurrences and set goals to mitigate potential risks to reduce or eliminate long-term risk to people and property from natural and man-made hazards. The LHMP was prepared pursuant to the requirements of the Disaster Mitigation Act of 2000 to achieve eligibility and potentially secure mitigation funding through Federal Emergency Management Agency (FEMA) Flood Mitigation Assistants, Pre-Disaster Mitigation and Hazard Mitigation Grant Programs.

Riverside County General Plan

According to the Safety Element of the Riverside County General Plan, hazardous materials include the entire spectrum of such substances from pre-product materials to waste. Laws and regulations that govern hazardous materials, and how they are stored, transported, and handled to distinguish between hazardous materials and hazardous waste. For regulatory purposes, hazardous materials are defined as manufactured hazardous items and materials, as well as the pre-product hazardous substances used to create them. These materials, both pre- and post-production, are subject to extensive management for safety requirements. The waste generated by, or resulting from, the production process becomes hazardous waste, which must be safely disposed of in an appropriate manner.

City of Blythe 2025 General Plan

Chapter 7, Safety Element, of the City General Plan is dedicated to addressing all potential public safety issues and public hazards and provides detailed information on the City's response to managing these issues and minimizing risks to the public. Potential hazards associated with the storage, use, and transport of hazardous materials in and throughout the City is discussed in the Safety Element. The General Plan contains Guiding Policies, Implementation Policies and other preventative measures intended to reduce hazards and provide emergency response strategies, and coordinate both local and regional emergency response efforts. The goals established in the General Plan are consistent with and supportive of, the detailed provisions of the Riverside County Hazardous Waste Management Plan.

The Safety Element also addresses emergency response and action related to hazards in the City. Per the General Plan, the City is able to adequately provide the needed fire and police facilities and services. Emergency response procedures in the case of a disaster involving hazardous materials are outlined in the City's Emergency Operations Plan and the Riverside County Hazardous Waste Management Plan. Policies contained in the Safety Element serve to protect the City's inhabitants from hazardous waste disasters through implementation of the plans mentioned above.

The Blythe Emergency Operations Center (EOC) was established in 1990 and provides disaster response training, and in the event of a disaster, activates efforts to coordinate the resources of the police, fire, and sheriff departments and City and County officials to serve as needed.

City of Blythe 2025 General Plan Final Program EIR

Chapter 3.9 of the Blythe General Plan (GP) EIR addresses the types of public safety issues and potential public hazards that may exist within the City and surrounding area. Chapter 3.9 focuses on chemical and hazardous material use, transport and safety, storage tanks and pipelines, and flooding issues.

Consistent with the Safety Element of the General Plan, Chapter 3.9 of the Blythe GP EIR provides goals and policies to ensure impacts of those hazards are less than significant. The GP EIR also provides an analysis of the potential impact of hazards and hazardous materials to the residents as a result of buildout of the City. Per the GP EIR, buildout of the City would not result in significant impacts regarding hazards and hazardous wastes.

City of Blythe Municipal Code

Chapter 2.52 – Disaster Relief

Chapter 2.52 of the City Municipal Code is intended to provide for the preparation and carrying out of plans for the protection of persons and property within the City in the event of an emergency or

disaster conditions, the direction of the disaster organization, and the coordination of the disaster functions of the City with the County of Riverside and with all other public agencies, corporation, organizations, and affected private persons.

4.8.4 Project Impact Analysis

Thresholds of Significance

The following standards and criteria for establishing significance of potential impacts related to hazards and hazardous materials were derived from the CEQA Guidelines, Appendix G. Development of the proposed project would have a significant effect to if it is determined that the project would:

a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?
b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?
c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?
d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?
e. For a project located within an airport land use plan or, where such a plan has not been adopted within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?
f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.
g. Expose people or structures, either directly or indirectly to a significant risk of loss, injury or death involving wildland fires.

Threshold topics “c” and “e”, involving school sites and public airports or public use airport in proximity to the project site, is not analyzed since the Initial Study analysis concluded that there would be no impacts.

Methodology

Available data to determine the potential for impacts associated with hazards and hazardous materials was assessed based upon consideration of the cannabis cultivation project. Whether there is a potential for cumulative impacts associated with hazards and hazardous materials was assessed based upon the consideration of the project, the project site, and related projects.

Phase I Environmental Site Assessment

A Phase I ESA was performed for the project site by MSA Consulting, Inc. in October 2020 (**Appendix I**). The purpose of the Phase I ESA was to advise the property owner of the existence or potential existence of recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the property in accordance with the scope and limitations of the American Society of Testing and Materials (ASTM) Practice E-1527-13 "Standard Practice for Environmental Site Assessments." The Phase I ESA also evaluated the likelihood of contamination of the site as a result of either past or present land-use practices and the potential for future environmental contamination which may occur as a result of current conditions or operations and maintenance activities at either the subject property or adjoining properties, thereby identifying real or potential environmental or economic impact to the proposed use of the property.

The scope of the investigation included the following:

1. Performing a site reconnaissance to identify the current conditions and land use of the project and adjoining properties. Visual evidence of prior uses of the project and adjoining properties were noted. The site reconnaissance included a visual inspection of the project surface and perimeter.
2. Researching historical land use of the project and vicinity by reviewing available resources such as historical aerial photographs, USGS maps, fire insurance maps, City directories, local building department records, local planning department records, and any other reasonably ascertainable maps and data.
3. Obtaining and reviewing a database search of pertinent federal, State, and local regulatory agency databases concerning environmental conditions on and in the vicinity of the project. As specified in the ASTM standard, the following databases were searched using, at a minimum, the ASTM search radius:
    - Federal NPL site list,
    - Federal CERCLIS site list,
    - Federal RCRA CORRACTS TSD facilities list,
    - Federal RCRA non-CORRACTS TSD facilities list,
    - Federal RCRA generators list,
    - Federal ERNS list,
    - California State lists of hazardous waste sites identified for investigation or remediation (Cal-Sites, Cortese, TOXIC PITS),
    - California State equivalent NPL sites list (Cal-Sites, BEP),
    - California State equivalent CERCLIS sites list (Cal-Sites, TOXIC PITS),

- California State landfill and/or solid waste disposal site lists (Cortese, SWF/LF),
- California State leaking underground storage tank site lists (Cortese, LUST), and
- California State registered underground storage tank site lists (UST).

4. Contacting and interviewing knowledgeable persons, such as property owners, managers, as well as representatives of local government agencies regarding historical site use and current site conditions, if possible.
5. Evaluation of the presence of recognized environmental conditions at the project through visual observation and research of reasonably ascertainable records. Recognized environmental conditions may include the presence of hazardous materials, petroleum products, underground storage tanks, above ground storage tanks, drums, chemical containers, polychlorinated biphenyls, liquid or solid wastes, water wells, oil wells, and areas indicative of potential contamination including stained soils and/or pavement, stressed vegetation, drains, sumps, pits, ponds, lagoons, odors, and septic systems.
6. Preparing a report presenting the results of the investigation.

The Phase I ESA did not identify recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the project site. Additional findings are provided in the discussion below.

Project Design Features/Conditions of Approval

Proposed building locations and design will be consistent with applicable State and local construction requirements and standards. Hazardous materials used during construction and operation of the site will be handled according to manufacturer and industry standards. Additionally, the project will implement and adhere to federal, State, and regional regulatory standards. This is discussed in greater detail below.

Project Impacts

a/b. Create a significant hazard to the public or the environment due to routine transport, use, or disposal of hazardous materials, or create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment

The project site is currently occupied by agricultural row crops. Surrounding land uses include agricultural properties to the north, west, and south, and commercial structures to the east. The roadways that delineate the property's northern and southern boundaries (Hobsonway and

Interstate 10, respectively) are main transportation facilities for the City. The transportation, use, and disposal of hazardous materials during project construction and operation is discussed below.

Construction

Construction of the proposed project is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances that power and lubricated construction equipment. The nature and quantities of these products would be limited to what is necessary to carry out construction of the project. Some of these materials would be transported to the site periodically by vehicle and would be stored in designated controlled areas on a short-term basis. The designated controlled areas will be temporarily located in staging areas typically placed close to where development is occurring at that time. The staging areas would move to a new location when construction of one area, or phase, is complete, and construction of a new phase will begin. The identification of building material staging areas is required by Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ) administered by the RWQCB which requires the development and implementation of a project-specific SWPPP for areas greater that one acre. Per the CGP, the project's SWPPP shall include comprehensive handling and management procedures for building materials, especially those that are hazardous and toxic. Paints, solvents, pesticides, fuels and oils, other hazardous materials or any building materials that have the potential to contaminate stormwater should be stored indoors or under cover whenever possible or in areas with secondary containment. The designation of staging areas for activities such as fueling vehicles, mixing paints, plaster, mortar, and so on, is also required to be determined in the SWPPP. When handled properly by trained individuals and consistent with the manufacturer's instructions and industry standards, the risk involved with handling these materials is considerably reduced to a less than significant level. As a requirement of the CGP, the contractor will be required to identify all controlled staging areas within the project limits for storing materials and equipment.

Furthermore, to prevent a threat to surface water during construction, the management of potentially hazardous materials and other potential pollutant sources will be regulated through the implementation of measures required in the SWPPP for the project. The SWPPP requires a list of potential pollutant sources and the identification of construction areas where additional control measures are necessary to prevent pollutants from being released on-site or off-site. Best management practices (BMPs) are required in the SWPPP for proper material delivery and storage; material use; and spill prevention and control. These temporary measures outline the required physical improvements and procedures to prevent impacts of pollutants and hazardous materials to workers and the environment during construction. For example, all construction materials, including paints, solvents, and petroleum products, must be stored in controlled areas and according to the manufacturer's specifications and the contractor will also be required to implement BMPs to assure that impacts are minimized and that any minor spills are immediately and properly remediated. In addition, perimeter controls (fencing with wind screen), linear sediment barriers (gravel bags, fiber

rolls, or silt fencing), and access restrictions (gates) would help prevent temporary impacts. **Mitigation Measure HWQ-1** requires the project to develop and implement the SWPPP in compliance with the requirements of the Construction General Permit. With the implementation of **Mitigation Measure HWQ-1**, less than significant impacts are anticipated during construction.

Offsite improvements will connect the project's proposed sewer lines to the existing City of Blythe sewer lines in Hobsonway. The proposed sewer line will extend approximately 1,200 feet east to connect to an existing manhole. Construction for the proposed sewer line connection would occur in the existing road right-of-way. Similar to on-site improvements, construction of the off-site improvement is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances. Off-site construction activities would require the implementation of appropriate BMPs in order to reduce the risk of spills and leaks of hazardous materials used. Therefore, impacts are anticipated to be less than significant.

Operation

The proposed project includes twelve commercial buildings for the cultivation of cannabis. Indoor cultivation activities will include the storage and use of hazardous materials, however, the facilities are not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project site or its surroundings or create a significant hazard due to accidental release. Further discussion is provided below.

Storage

The proposed project will require the storage or handling of hazardous materials, as defined in Chapter 8.64 of the Riverside County Municipal Code, including storage of a propane emergency back-up generator. The back-up generators will generate 30 percent of demand load to keep the climate control at a minimum in order for the plants to survive. Under Chapter 6.95, Article 2, of the California HSC, operators of stationary sources of hazardous materials (if they are deemed an accident risk) are required to prepare risk management plans (RMPs), detailing strategies to reduce the risk of accidental hazardous material release, and submit them to the California Emergency Management Agency. Additionally, cannabis cultivators that store hazardous materials (e.g., fuel, pesticides) exceeding the threshold quantity would prepare a Hazardous Materials Business Plan (HMBP), as required by Chapter 6.95 of the California HSC and enforced by the Riverside County Department of Environmental Health (DEH). Generally speaking, a Hazardous Materials Handler is identified as any facility storing hazardous materials and or wastes in quantities greater than or equal to:

- 55 gallons of a liquid substance
- 500 pounds of a solid substance
- 200 cubic feet of compressed gas

The project will require the use of acids used to balance soil pH during cultivation activities. The project would store 10 gallons of these acids, identified as pH up (5 gallons) and pH down (5 gallons), in a locked locker cage. Therefore, the on-site storage of the pH up and pH down would not require the submittal of an HMBP. The project also proposes to use carbon dioxide (CO2) to enhance plant growth stored in tanks located outside of each building. Compressed CO2 is commonly used in cultivation activities to increase CO2 received by plants during the process of photosynthesis. Each proposed tank has the capacity to hold between 215,100 cubic feet to 220,500 cubic feet of compressed CO2. Therefore, since the capacity exceeds 200 cubic feet threshold established by the HSC and Riverside DEH, the project will be required to implement an HMBP. The information from the HMBP is made available to first responders in the County for emergency response activities. All handlers are required to disclose their inventory of hazardous materials in the form of a HMBP. In most cases, the local CUPA is the administering agency responsible for implementing the HMBP program. The Riverside County DEH is the CUPA for the County. Data generated for HMBP compliance is managed through the Statewide California Environmental Reporting System (CERS).

HMBPs must include at least the following:

- A list of the chemical name and common names of every hazardous substance or chemical product handled by the business;
- The category of waste, including the general chemical and mineral composition, of every hazardous waste handled by the business;
- The maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite;
- Sufficient information on how and where the hazardous materials are handled by the business to allow fire, safety, health, and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials;
- Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and
- Training for all new employees and annual training, including refresher courses, for all employees on safety procedures in the event of a release or threatened release of a hazardous material.

Under the administration of the County of Riverside DEH, and in compliance with the Hazardous Materials Release Response Plans and Inventory Law, Chapter 6.95 of the HSC, any business handling and/or storing a hazardous material shall obtain a permit from the DEH and electronically submit a business plan in the Statewide Informational Management System. The proposed project will require the storage or handling of hazardous materials, as defined in Chapter 8.64 of the Riverside County Municipal Code, including storage of CO2 and propane emergency back-up generator(s), and shall be required to follow the procedures established in the Municipal Code and Chapter 6.95 of the HSC. This is required in **Mitigation Measure HAZ-2**.

Adherence to federal, State, and regional regulatory standards listed above, and included as **Mitigation Measure HAZ-2**, will ensure impacts related to the storage and the risk of accidental releases of hazardous materials associated with the project are less than significant.

Use/Handling

The operation of the cannabis cultivation facility will include the use and handling of hazardous materials. The Occupational Safety and Health Administration (OSHA) Regulations ensures safe and healthful conditions for workers by setting and enforcing standards and by providing training, outreach, education, and assistance. To fulfill this purpose, OSHA develops and enforces mandatory job safety and health standards. These standards are codified in 29 CFR Part 1910, which address issues that range in scope from walking and working surfaces, to exit routes and emergency planning, to hazardous materials and personal protective equipment. They include exposure limits for a wide range of specific hazardous materials, including pesticides, as well as requirements that employers provide personal protective equipment to their employees wherever it is necessary (i.e., when required by the label instructions). OSHA standards also require that chemical manufacturers and importers obtain and develop Safety Data Sheets (SDSs). Employers must have an SDS in the workplace for each chemical they use. Commercial cannabis operations such as the proposed project would be required to comply with OSHA regulations and standards, including worker personal protective equipment requirements, and maintaining SDSs for each chemical they use to protect the health of workers. Additionally, hazardous materials, if onsite, will be handled in compliance with manufacturer's standards to ensure proper use and handling. This is required in **Mitigation Measure HAZ-3**.

The California Accidental Release Prevention (CalARP) Program was designed to prevent accidental release of hazardous substances, minimize damage if releases occur, and satisfy community right-to-know laws. The CalARP programs and implementing regulations (Title 19, Division 2, Chapter 4.5 of the CCR) require businesses that handle more than a threshold quantity of regulated substances to develop a RMP, as discussed above. The project will be required to comply with the CalARP program to prevent the accidental release of hazardous substances during use. As stated above, the project shall prepare a HMBP since the proposed CO2 tanks would exceed the 200 cubic feet of compressed gas threshold. This is listed as **Mitigation Measure HAZ-2**.

Maintenance of the proposed buildings would not result in the use of hazardous materials in amounts that exceed what is typically required for commercial buildings. The handling, application, and storage of cleaning agents, building maintenance products, paints, solvents and other related substances expected to carry out the necessary operations within the project will occur in a manner typical of existing agricultural projects throughout the City. However, these materials would not be present in sufficient quantities to pose a significant hazard to public health and safety, or the environment.

Additionally, the materials required for the maintenance of landscaped areas (i.e., fertilizers, etc.), the proposed buildings, and the cannabis cultivation operations will be stored onsite and regulated by State and local law, including Fire Department regulations requiring proper storage and inspection. These regulations, including those imposed by the State, County of Riverside and the Fire Department, are designed to lower impacts to less than significant levels. Compliance with these procedures will ensure that the use, transport, and disposal of hazardous materials would not impact the public or environment or result in the accidental release of hazardous materials. Less than significant impacts are anticipated during project operation.

Overall, the adherence to federal, State, and regional regulatory standards, as well as the implementation of **Mitigation Measures HAZ-2** through **HAZ-3** will ensure impacts related to the use of hazardous materials associated with the project, and the risk of accidental releases of hazardous materials from cannabis operations would be less than significant.

Disposal

Green waste is generated throughout the cannabis cultivation process. Pruning, the removal of nuisance weeds, the removal of plants that fail to reach maturity, and the removal of other plant material residuals that are unused following harvesting, and processing, all generate green waste. Cannabis waste includes any material intended for disposal that contains cannabis but is not otherwise considered a hazardous waste. Cannabis waste consisting solely of plant material shall be considered an organic waste as defined in Public Resources Code section 42649.8(d).

According to Section 17223 of the Department of Cannabis Control (DCC) Medicinal and Adult-Use Commercial Cannabis Regulations, CCR Title 4, a cannabis licensee shall dispose of all waste in accordance with the Public Resources Code and any other applicable State and local laws. It is the responsibility of the licensee to properly evaluate waste to determine if it should be designated and handled as a hazardous waste, as defined in Public Resources Code section 40141. Additionally, a licensee shall establish and implement a written cannabis waste management plan that describes the method or methods by which the licensee will dispose of cannabis waste, as applicable to the licensee's activities. A licensee shall dispose of cannabis waste using only the following methods:

1. On-premises composting of cannabis waste.
2. Collection and processing of cannabis waste by a local agency, a waste hauler franchised or contracted by a local agency, or a private waste hauler permitted by a local agency in conjunction with a regular organic waste collection route.
3. Self-haul cannabis waste to a manned, fully permitted solid waste landfill or transformation facility; and/or a manned, fully permitted composting facility or manned composting operation; and/or a manned, fully permitted in-vessel digestion facility or manned in-vessel digestion operation; and/or a manned, fully permitted transfer/processing facility or manned transfer/processing operation; and/or a manned, fully permitted chip and grind operation or

facility; and/or a recycling center as defined in title 14, California Code of Regulations, section 17402.5(d)

4. Reintroduction of cannabis waste back into agricultural operation through on-premises organic waste recycling methods including, but not limited to, tilling directly into agricultural land and no-till farming.

There are reporting requirements specific to disposal as well as other general reporting requirements for cannabis licensees. They include the following:

- The type of cannabis or cannabis products.
- The weight, volume, or count of the cannabis or cannabis products.
- The date of activity.
- The unique identifier (UID) assigned to the cannabis or cannabis products.
- If cannabis or cannabis products are being destroyed or disposed of, the licensee shall record the following information in the notes section:
    - The name of the employee performing the destruction or disposal;
    - The reason for destruction or disposal; and
    - The method of disposal.

These requirements are found in Section 15049 of the DCC Medicinal and Adult-Use Commercial Cannabis Regulations, CCR Title 4. The project will be required to comply with the established regulations regarding disposal and reporting. This is required as **Mitigation Measure HAZ-4**.

Additionally, indoor cultivation operations may use high powered lights, which could contain hazardous components that could enter the environment during disposal. High-intensity discharge (HID) bulbs are one type of light bulb used in horticulture, and are defined by the type of gas used in the bulb, such as metal halide (MH) and high-pressure sodium (HPS). HID bulbs are not recyclable, and each bulb contains approximately 30 mg of mercury and other toxins. However, light-emitting diodes (LEDs) are both more energy efficient and include less hazardous materials than HID bulbs. The project will use 980 HPS bulbs in building 1. The HPS bulbs will be changed annually and converted to LED lights when building 3 is complete. Buildings 2 through 12 will have 1,225 LED bulbs in each building. The lifespan of LED bulbs are 5 to 7 years.

In order to determine whether project-generated waste from hazardous materials (such as light bulbs at the end of their lifespan) could be disposed of appropriately, the local waste management provider, CR&R Environmental Services, was contacted on March 29, 2022. CR&R stated that they do not accept hazardous waste generated by commercial facilities and directed the question towards a facility that accepts household hazardous waste. The Riverside County Department of Waste Resources (RCDWR), when contacted, inferred that the closest facility that accepts commercial hazardous waste at the capacity that the project will be producing is Environmental Logistics, located at 140 West Monte

Avenue, in Bloomington California. This site collects hazardous wastes, including light bulbs in large quantities.

Correspondence with Environmental Logistics took place on March 29, 2022. Kayla, with their dispatch team, confirmed that the site has the capacity to collect the waste generated from spent light bulbs used for project-related indoor cultivation. The project will be required to consult with Environmental Logistics to receive approval and set up an account in their database. Once approval is achieved, the project would coordinate with Environmental Logistics to schedule waste pick-ups. Environmental Logistics provides pick-up services, and all waste is picked up in Department of Transportation (DOT) certified containers and transported to Environmental Logistics' facilities. The project's coordination with waste disposal services is required as **Mitigation Measure HAZ-5**.

Adherence to federal, State, and regional regulatory standards, included as **Mitigation Measures HAZ-4** and **HAZ-5**, will ensure impacts related to the disposal of hazardous materials associated with the project are reduced to less than significant levels.

Off-Site Improvements

As previously stated, off-site improvements include an underground sewer line connection to existing City sewer lines on Hobsonway. The operation of the off-site sewer lines along Hobsonway is not anticipated to result in the routine transport, use, or disposal of hazardous materials. The potential for release of hazardous materials into the environment associated with the infrastructure will be overseen by the City of Blythe, which has programs in place to manage such releases, as they operate the City's wastewater infrastructure. The sewer lines will operate underground and will not contain hazardous materials. Therefore, the use of hazardous materials associated with the off-site improvements will result in less than significant impacts.

Overall, construction and operation of the proposed project will result in less than significant impacts with the implementation of **Mitigation Measures HAZ-1** through **HAZ-5**.

d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment

Pursuant to the Cortese List Government Code 65962.5 and its subsections, record searches on the project property were performed within multiple database platforms. The resources consulted included GeoTracker, EnviroStor and the EPA Enforcement and Compliance History Online (ECHO). The search of all three databases revealed that the project site is not a hazardous materials release site, and therefore, development of the site would not create a significant hazard to the public or the environment.

However, for information disclosure purposes, two of the three databases, GeoTracker and ECHO, listed sites within a half-mile radius of the project. The GeoTracker database mapped 14 registered Leaking Underground Storage Tank (LUST) Cleanup Site within a half-mile radius of the project site. However, some sites are incorrectly mapped due to address discrepancies. The registered sites are listed in the table below.

Table 4.8-1 GeoTracker Registered Facilities

Registered Facility	Location	Distance	LUST Status
Lindsey Holding Company	11450 W. Hobsonway	NW of property	Completed Case Closed – January 1997
Puritan Ice	11390 W. Hobsonway	NW of property	Completed Case Closed – August 1992
JM Deforest	12330 W. Hobsonway	50 ft. W	Completed Case Closed – February 2015
AAA Air Conditioning	1134 W. Hobsonway	0.25 miles E	Open Inactive as of November 2017
USA Self Service/Douglas STA	1147 W. Hobsonway	0.25 miles E	Open Site Assessment October 2021
Exxon Station #7-3090	801 W. Hobsonway	0.48 miles E	Completed Case Closed – March 2015
Unocal Station #5822	301 S. Lovekin Bld.	0.48 miles SE	Completed Case Closed – March 2018
Kem's Mobil Station	745 W. Hobsonway	0.50 miles E	Completed Case Closed – March 2015
Chevron #9-1045	321 S. Lovekin Blvd.	0.50 miles SE	Completed Case Closed – March 2018
Blocker Transportation	910 W. 14th Avenue	0.50 miles SE	Open Inactive – August 2012
GeoTracker Facilities Map Discrepancy			
Desert Security Farms	3116 Plant Road (map discrepancy)	(mapped) 0.25 miles E (actual) N/A	Completed Case Closed – August 1996
Ford Dry Lakes Jojoba	Chuckwalla Valley Road	N/A	Completed Case Closed – October 1997
Bill Lewis	6490 N. C and D Boulevard	(mapped) 0.25 miles E (actual) 2.69 miles SE	Completed Case Closed – September 1998
Fleet Mortgage	10921 S. DeFrain (map discrepancy)	1.14 miles NE	Completed Case Closed – October 1997

As indicated in the table, most of the site have a status of "Completed Case Closed", therefore, they do not have any potential to impact the project site. AAA Air Conditioning and USA Self Service are located approximately 0.25 miles east of the project and contain a status of "Open (inactive)" and "Open Site Assessment" respectively. Per the most recent documentation provided by GeoTracker for the USA Self Service site, a low threat UST closure policy (LTCP) checklist was completed in September 2021, which stated that the unauthorized release from the system has been stopped and free product has been removed to the maximum extent practicable; however, the site assessment

continues. AAA Air Conditioning Site's status of Open (inactive) is because the multiphase extraction (MPE) remedial system is on hold due to the funding short fall.

The GeoTracker database incorrectly indicated that a military base was located on the project property. The military base is registered as the Blythe Army Airfield – Formerly Used Defense Site, located at 17240 West Hobsonway, at the Blythe airport approximately 5.35 miles west of the project site. This site is listed in GeoTracker 13 times as a Military UST Site, however, the status of the site is "Completed Case Closed" since 2011. Therefore, the former military base has no potential to impact the project site.

Similar to the GeoTracker database, the ECHO database highlighted seven facilities within a half-mile radius of the proposed project. The sites are listed below:

- The closest registered site is O'Reilly Auto Parts Store 2758, at 1315 West Hobsonway, approximately 0.15 miles northeast of the proposed project. This site is registered by the RCRA as an active facility and does not have existing violations.
- United Parcel Service Cably is approximately 0.30 miles northeast of the project site at 170 North Carlton Street. This site is registered under the Clean Water Act (CWA) as a minor general permit covered facility. Currently, the permit is expired, and the site has an "undetermined" violation status for the most recent quarter.
- Jordan Implement Company is located at 212 North Carlton Street, approximately 0.30 miles northeast of the site. This property is registered by the RCRA as an active facility and active small quantity generator (SQG). No recent violations are associated with this property.
- Blythe Freeway Towing, Inc. is listed by the RCRA as an active facility with a status of no violations. This site is located at 1005 West Hobsonway, approximately 0.35 feet east of the project site.
- Lovekin Donlow, Inc. is registered under the RCRA as an active SQG. Located at 310 South Lovekin Boulevard, approximately 0.47 miles southeast of the project site, this facility does not have existing violations.
- Chevron Station #91045 is registered under the RCRA as an active SQG and under the Clean Air Act (CAA). This site, located at 321 South Lovekin Boulevard approximately 0.47 miles southeast of the project site, does not have existing violations.
- Kems Service is located at 745 West Hobsonway, approximately 0.50 miles east of the project site. This property is listed under the RCRA as an active SQG. No violations are associated this this facility.

Due to the distance of these sites from the project property and their current statuses of "no violation," they are not likely to impact the project site.

The search results in the EnviroStor database did not identify any records of any site within a half-mile of the project property, unlike the GeoTracker and ECHO databases. The EnviroStor database did

not identify any LUST Cleanup Sites, Land Disposal Sites, Military Sites, DTSC Hazardous Waste Permits, DTSC Cleanup Sites, or Permitted Underground Storage Tanks on or around the project property.

The registered sites maintain statuses of "Completed – Case Closed" and "no violation." Additionally, the project property was not registered on the researched databases above. Therefore, hazardous waste sites will have no impact on the proposed project.

Operational Impacts

Portions of the project site operated as agricultural land. Agricultural activities typically include the storage and periodic application of pesticides, herbicides and fertilizers. Pesticides and herbicides vary widely in toxicity and persistence in the soil. Pesticides that degrade slowly over time can leave residues in crops or soil. Residue from agricultural activities dissipate or decay, allowing the residue to disappear from the plant or soil. Dissipation rates can range from hours to years, which varies by the chemical applied and plants affected. Historical aerial imagery indicates that the site has operated as agricultural land since 1948. At this time, no agricultural equipment or infrastructure are present on-site; however, the site is in active use for cultivation of row crops. No fertilizer or related chemical storage related to existing/current farming activities exist onsite.

The Phase I ESA evaluated the likelihood of contamination of the subject site as a result of either past or present land-use practices and the potential for future environmental contamination which may occur as a result of operations and maintenance activities at either the subject site or properties adjoining the subject site, thereby identifying real or potential environmental impact to the project site.

The Phase I ESA did not identify recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the project site. Therefore, the Phase I ESA concluded that the presence or likely presence of any hazardous substances or petroleum products in, on, or at the project site do not exist.

The proposed project will not use pesticides for the cultivation of cannabis. All growing activities will occur inside the proposed facilities. Additionally, truck loading areas are proposed to occur within the proposed buildings. As stated in discussion a/b, above, the project will not result in the use of liquid- or solid-based hazardous materials that exceed the threshold established in Chapter 6.95 of the California HSC. However, the project proposes the use of CO2 tanks onsite during project operations in a quantity exceeding the threshold, and the project is therefore required to prepare a HMBP. This is enforced by **Mitigation Measure HAZ-2.** The implementation of a HMBP would reduce potential hazards to less than significant. Therefore, the proposed project would not create significant impacts resulting from proximity to the hazardous sites listed above.

Due to the regulation of cannabis cultivation methods and materials, the proposed project will not generate hazardous materials that would exacerbate the facilities registered on the list of hazardous materials sites compiled pursuant to Government Code Section 65962.5. Additionally, the project would not create a significant hazard to the public or the environment.

The project will not exacerbate risks or impacts associated with the registered sites with the implementation of **Mitigation Measure HAZ-2**.

f. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan

The Safety Element of the Blythe General Plan addresses multiple components of the City's public safety services, including police and fire service, emergency response and preparedness. Per the General Plan, the City of Blythe is able to adequately provide the needed fire and police facilities and services.

The City of Blythe Police Department (BPD) is located at 240 North Spring Street, approximately 1.1 driving miles northeast of the project site. The BPD's service area covers all land in the City limits (approximately 27 square miles). The BPD does not maintain a standard for emergency response times, however, the officers are dispatched immediately in response to all emergency calls. Depending on the location of the officer at the time of the call, response times can range from 1 minute to 10 minutes. According to the Department's website, there are currently 28 staff members, 18 of which are patrol officers. The City of Blythe contracts for secondary back-up services with the Riverside County Sheriff's Department. The County Sheriff's Department is located at 260 North Spring Street, approximately 1.1 driving miles from the project site.

Fire protection and prevention services are regarded as essential for protecting the public's safety in Blythe. Fire projection services are provided by the City of Blythe Fire Department and the Riverside County Fire Department (RCFD)/ CALFIRE through an automatic aid agreement. The Blythe Fire Department is located at 201 North Commercial Street, and the closest station to the project property, lying approximately 0.9 driving miles northeast from the project site. According to the Blythe Fire Department website, there are 29 staff members including one fire chief (one fire chief assistant), 5 fire captains, 6 fire engineers, and 16 firemen. Two additional stations are located within Blyth and include: RCFD Station #43 located at 140 West Barnard Street, and RCFD Station #45 located at 17280 West Hobsonway. Paramedic service is provided to the City of Blythe and the project area by American Medical Response (AMR).

The police and fire departments within the City rely on mutual aid agreements with neighboring jurisdictions to provide additional services when necessary.

The City of Blythe prepared an Emergency Management Plan for use by all employees in the event of a major disaster or other emergency event. The plan provides for a strategic response by all

employees and assigns specific responsibilities in the event that the plan is activated. The manual is located at the Watch Commanders Office, and managed by the Chief of Police or designee who shall review the Plan at least once every two years.

Regional access to the City is provided by Interstate 10 (I-10), State Highway 78 (SR-78), and State Route 95 (US 95). Interstate 10 is located immediately south of the project site, and SR-78 and US 95 are located approximately 2.30 miles southwest, and approximately 2.50 miles east of the project, respectively. The City of Blythe has developed and maintains and extensive arterial roadway network.

The project is adjacent to the City's major roadway, Hobsonway. According to the City General Plan, Hobsonway is the main street and center of commerce in Blythe. Many of the commercial businesses in Blythe are located on Hobsonway, or within a block or two. Project access to Hobsonway would occur at one main point at the center of the site, and two gated, emergency access locations at the northeast and northwest corners of the site. Hobsonway will provide public and emergency access into and out of the project vicinity. Vehicles accessing the street from the project will not interfere with evacuation routes or plans, insofar as the project will not alter any existing street used for these purposes.

Construction of the roadway will occur during development of the project, including the underground connection of the proposed project sewer lines to the existing City sewer lines, located approximately 1,200 feet east of the project along Hobsonway. Project access points will be reviewed by the Fire Department, to ensure adequate access for emergency vehicles. For gated projects, the Fire Department requires the installation of a Knox-Box Rapid Entry System or similar device to facilitate emergency access by fire fighters and other emergency responders. This requirement will be included as a condition of approval for the project, and assures that on-site emergency access impacts will be less than significant.

Project implementation is not expected to interfere with the critical facilities, emergency transportation and circulation, or emergency preparedness coordination. Prior to construction, both the Fire Department and Police Department will review each sub-area plan as it is brought forward, to ensure safety measures are addressed, including emergency access. The project will be reviewed by City staff and police and fire department officials to ensure adequate fire service and safety as a result of project implementation. Potential impacts are therefore determined to be less than significant.

Project Operational Activities

Improper cultivation facility development or negligence of appropriate building codes can result in hazardous incidents requiring first responders. Electrical hazards, fire behavior (such as highly insulated and poorly ventilated buildings), falling, tripping, and entanglement hazards, explosion hazards (from pressurized gas cylinders), mold from damp or humid indoor conditions without ventilation, and a lack of oxygen in indoor cultivation buildings can create hazardous conditions that

may require the presence of first responders. However, these conditions are typically found at illegal and unlicensed cannabis grow sites. The project would be required to have certification from and comply with local jurisdictions, such as the City of Blythe and the Fire Department, to ensure building, electrical, and fire codes are implemented at the site. This shall be required as **Mitigation Measure HAZ-6**. The implementation of **Mitigation Measure HAZ-6** will ensure project impacts regarding electrical and fire hazards are reduced to less than significant.

g. Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires

The Riverside County General Plan and the Cal Fire maps for the Eastern Riverside County area indicate that the project and its surroundings are located outside of the Very High Fire Hazard Severity Zone (FHSZ) for Local Responsibility Area and outside of the Very High/High/Moderate FHSZ for State and Federal Responsibility Areas. Additionally, the project site and surrounding vicinity is not in or adjacent to wildlands. As previously discussed, the project will include the on-site fire protection facilities necessary to satisfy the local Fire Department requirements.

With the foregoing, the project will not expose people or structures to a significant risk involving wildland fires. No impacts are expected.

4.8.5 Cumulative Impacts

A "cumulative impact" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. For purposes of assessing the proposed project's cumulative impact with respect to hazards, the cumulative analysis is based upon a list approach to determine the proposed project's contributing effect on potential cumulative impacts related to hazards. All of the cumulative projects identified in **Table 4.0-1** are considered in this cumulative analysis.

Hazardous materials and risk of upset conditions are largely site-specific, and would occur on a case-by-case basis for each individual project, in conjunction with development proposals on these properties. All developments in the City are required to evaluate potential threats to public, safety, including those associated with the accidental release of hazardous materials into the environment during construction and operation, emergency response, transport/use/disposal of hazardous materials, and hazards to sensitive receptors (including schools). Similarly, all projects would be required to analyze and properly mitigate any impacts to the existing evacuation plan, if impacts are identified.

Implementation of regulatory compliance measures during construction and operation of a project would not combine with any of the related projects to cause a cumulatively significant impact. During construction, all projects would be required to implement best management practices established in

the project-specific SWPPP. The implementation of the SWPPP designates areas for the storage of hazardous materials, as well as handling procedures for hazardous materials. **Mitigation Measure HAZ-1** would ensure that the project implements the SWPPP at the site during construction. Additionally, materials used during construction will be stored, handled, and transported per manufacturer instructions, thereby reducing likelihood of accidental release. The cumulative projects identified in **Table 4.0-1** would be required to develop and implement the SWPPP during construction in compliance with the most current Construction General Permit. Finally, construction of the cumulative projects will not occur at the same time. Construction timing for the cumulative projects would likely occur before or after the project, depending on their entitlement status within the City.

The site would include the operation of 12 buildings for the cultivation of cannabis. The cannabis operations will not utilize pesticides. All chemicals and materials used during operation of the project will be required to adhere to all applicable standards and regulations within the CCR as identified in **Mitigation Measure HAZ-4**, the California Building Code and the California Electrical Code regarding cannabis operations as identified in **Mitigation Measure HAZ-6,** and coordination with CR&R regarding the disposal of light bulbs used for indoor cultivation, as identified in **Mitigation Measure HAZ-5**. The project will be required to adhere to DCC, and HSC regulations regarding the storage, use, and disposal of hazardous materials and cannabis waste associated with the project. Additionally, the proposed project will require the storage or handling of hazardous materials, as defined in Chapter 8.64 of the Riverside County Municipal Code, including CO2 tanks or, propane emergency back-up generators, and will be required to follow the procedures established in the Municipal Code, as identified in **Mitigation Measure HAZ-2**. Finally, **Mitigation Measure HAZ-3** requires that the project comply with OSHA Regulations and standards regarding worker safety. Other projects, operating currently or proposed in the future, are or will be subject to the same regulations. Adherence to federal, State, and regional regulatory standards and the implementation of **Mitigation Measures HAZ-1** through **HAZ-6** will ensure impacts related to the release of hazardous materials associated with the project and future projects will assure that the cumulative impacts associated with hazardous materials will be reduced to less than significant levels.

4.8.6 Mitigation Measures

HAZ-1 The project is required to comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP). The required plan will identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted through the Stormwater Multiple Application and Report Tracking System (SMARTS), in which a Waste Discharge

Identification (WDID) number will be issued. The SWPPP and WDID must be kept on-site and used during the life of the project.

HAZ-2 Should the project store 200 or more cubic feet of compressed gas at the project site, the project shall prepare a Hazardous Materials Business Plan (HMBP), as required by Chapter 6.95 of the California Health and Safety Code (HSC) and enforced by the Riverside County Department of Environmental Health (DEH). HMBPs must include at least the following:

- A list of the chemical name and common names of every hazardous substance or chemical product handled by the business;
- The category of waste, including the general chemical and mineral composition, of every hazardous waste handled by the business;
- The maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite;
- Sufficient information on how and where the hazardous materials are handled by the business to allow fire, safety, health, and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials;
- Emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and
- Training for all new employees and annual training, including refresher courses, for all employees on safety procedures in the event of a release or threatened release of a hazardous material.

HAZ-3 The project would be required to comply with Occupational Safety and Health Administration (OSHA) Regulations and standards, including worker personal protective equipment requirements. These standards are codified in 29 Code of Federal Regulations (CFR) Part 1910, which address issues that range in scope from walking and working surfaces, to exit routes and emergency planning, to hazardous materials and personal protective equipment. They include exposure limits for a wide range of specific hazardous materials, including pesticides, as well as requirements that employers provide personal protective equipment to their employees wherever it is necessary (i.e., when required by the label instructions). OSHA standards also require that chemical manufacturers and importers obtain and develop Safety Data Sheets (SDSs). Employers must have an SDS in the workplace for each chemical they use.

HAZ-4 The project shall dispose of all cannabis plant waste in accordance with Section 17223 of the Department of Cannabis Control (DCC) Medicinal and Adult-Use Commercial Cannabis Regulations, California Code of Regulations (CCR) Title 4. This document establishes requirements for the disposal of cannabis waste and the reporting of cannabis waste disposal.

HAZ-5 The project shall dispose of light bulbs used for indoor cultivation at a certified facility that accepts commercial hazardous waste. Closest hazardous waste site to the project is Environmental Logistics, located at 140 West Monte Avenue, in Bloomington California. The project will be required to receive approval from Environmental Logistics, pay the associated fee, and coordinate waste pick-up. Environmental Logistics provides pick-up services, and all waste is picked up in Department of Transportation (DOT) certified containers and transported to their facilities.

HAZ-6 The project shall be required to have certification from and comply with local jurisdictions, including the City of Blythe and the Fire Department, to ensure building, electrical, and fire codes are properly implemented at the site.

4.8.7 Level of Significance After Mitigation

Implementation of existing regulations and standards and **Mitigation Measures HAZ-1 through HAZ-6** identified above, along with the adherence to federal, State, and regional regulatory standards will ensure that the project's potential impacts associated with hazards and hazardous materials would be reduced to less than significant levels.

4.8.8 Resources

1. California Water Boards Cannabis Cultivation Programs Website, https://www.waterboards.ca.gov/water_issues/programs/cannabis/
2. Cannabis Cultivation Policy – Principles and Guidelines (Requirements) for Cannabis Cultivation, California Water Boards, approved April 2019, https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf
3. City of Blythe General Plan, Chapter 7 Safety Element, https://www.cityofblythe.ca.gov/DocumentCenter/View/302/General-Plan-2025---Entire-Document?bidId=, accessed January 2022.
4. CR&R Environmental Services, phone call, (760) 922-9107, March 29, 2022.
5. GeoTracker, State Water Resources Control Board, https://geotracker.waterboards.ca.gov/ accessed December 2021.
6. Environmental Logistics, phone call, (800) 698-4377, March 29, 2022.
7. EnviroStor, Department of Toxic Substance Control, https://www.envirostor.dtsc.ca.gov/public/, accessed December 2021.

8. Enforcement and Compliance History, Environmental Protection Agency, https://echo.epa.gov/facilities/facility-search/results, accessed December 2021.
9. Medicinal and Adult-Use Commercial Cannabis Regulations, California Code of Regulations (CCR) Title 4, Department of Cannabis Control, https://cannabis.ca.gov/wp-content/uploads/sites/2/2021/10/DCC-Cannabis-Regulations-Sept.-2021.pdf
10. Riverside County Department of Waste Resources, phone call, (651) 486-3200, March 29, 2022.

4.9 Hydrology and Water Quality

4.9.1 Introduction

The purpose of this section is to discuss the hydrology and surface water quality context in which the proposed project will be implemented. The subject principles, descriptions and supporting analysis are based on multiple regulatory and reference documents cited throughout this section, as these provide relevant background information. Reference documents include sections the Federal *Clean Water Act* (CWA); United States Geological Survey (USGS) Watershed Boundary Dataset; Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 06065C3230G, effective August 28, 2008; *Water Quality Control Plan for the Colorado River Basin Region* (Basin Plan), January 2019; California Department of Water Resources, *California's Groundwater Update 2020 (Bulletin 118)*, November 2021; City of Blythe California 2020 Urban Water Management Plan (Final Draft), May 2021

At the localized project level, the analysis primarily relies on the preliminary engineering plans that account for grading, drainage, stormwater management, and other aspects of hydrology and water quality. These documents include the *Edelweiss Sustainable Farms Preliminary Hydrology Report*, March 24, 2022, and the *Percolation/Infiltration Testing for On-Site Storm Water Management* Report, June 22, 2021. These plans will be subject to final engineering design and City plan review prior to approval and any form of implementation.

Primary considerations for this hydrology and surface water quality assessment include the prevailing rainfall characteristics for the project region and the physical setting at the watershed and local level, as these determine the existing and proposed surface drainage conditions in which the proposed project will be undertaken. Moreover, the content and analysis in this section relies considerably on the hydrology, stormwater, and surface water quality regulatory framework, which regulates general and finite aspects of land development activities during the design, construction, and operational phases. Sources used in the preparation of this section are identified in **Chapter 8.0, *References,*** at the end of this EIR.

4.9.2 Existing Conditions

Relevant Principles in Hydrology and Stormwater Management

Hydrology refers to the occurrence, distribution, and movement of surface water, including water found in rivers and stormwater drainage systems. Stormwater refers to the surface runoff and drainage resulting from rain events. Stormwater runoff and surface drainage patterns are determined by the topography and associated gradients of the land. Surface water quality refers to selected physical, chemical, or biological characteristics found in stormwater in relation to an established standard.

Groundwater is the water found underground in the voids in soil, sand, and rock. It is stored in and moves slowly through aquifers. Groundwater supplies are replenished, or recharged, by precipitation that seeps into the land's surface.

This section analyzes how the principles of hydrology and urban runoff management will be incorporated as part of the project design features to address the relevant thresholds of significance pertaining to hydrology and water quality standards.

The traditional process of urbanization and land development generally results in the conversion of a natural ground surface cover (pre-development condition) into a setting with increased impervious characteristics, occurring through the introduction of buildings, pavement, and hardscape (post-development condition). Such development process typically leads to reductions in vegetative or pervious land cover in exchange for an impervious condition, resulting in a lower capacity to intercept, retain, and infiltrate stormwater runoff. Therefore, land development that is not regulated by hydrology and stormwater controls can potentially result in a post-development condition in which 1) total stormwater runoff volume increases, 2) the runoff conveyance occurs more rapidly, and 3) the peak discharge is greater. The increase in runoff volume results from the decrease in infiltration and depression storage characteristics found in undeveloped land (pre-development). The shortened runoff conveyance time results from the greater flow velocities along impervious surfaces and drainage systems compared to a natural surface. The increase in peak discharge is the effect of larger runoff volume occurring over a shorter time compared to the pre-development condition. These effects of unregulated land development generally have the potential to result in degradation or modification to surface drainage, soil erosion and siltation, and water quality impairments.

However, the regulatory mandates and engineering standards established at the federal, State, regional, and local level are designed to prevent land development activities from incurring or causing such hydrologic changes (hydromodifications) or water quality impairments to local resources. Stormwater management and adherence to surface water quality standards are achieved through required measures and project design, such that physical disturbance, vegetation clearing, earth movement, grading, and construction activities are not permitted without demonstrating compliance with the local, regional, and State permitting authorities and the pertinent regulations aimed at preventing stormwater impacts.

Regional Hydrologic Conditions

The project is located in the East Colorado River Basin Planning Area which includes multiple watersheds encompassing the easternmost portion of Riverside, San Bernardino, and Imperial Counties, and the Colorado River Basin Region. This planning area is approximately 200 miles long (trending north-to-south), with a maximum east-west width of approximately 40 miles, characterized by desert valleys and low mountains that are generally less than 4,000 feet above sea level. Average precipitation is estimated at 3 to 4 inches annually, with about half of it occurring as summer thunderstorms, and the other half from generally in the form of weak winter storms. In this planning area, ephemeral flows resulting from

storm events primarily drain toward the Colorado River. Perennial flows, occurring throughout the year, are limited to the Colorado River and associated irrigation drains and canals.

At the regional level, the project is located within the Palo Verde Valley Watershed, also identified by the USGS as Hydrologic Unit (HU) 1503010408. The Palo Verde Valley Watershed encompasses approximately 388 square miles, including a majority of Blythe and the Palo Verde Irrigation District (PVID). Hydrologically, it includes naturally occurring tributary portions of Big Maria Mountains on the north, McCoy Mountains and Palo Verde Mesa on the west, and Mule Mountains on the southwest. The eastern low-lying portion of this watershed, where the project is located, is the Palo Verde Valley floor, situated east of the Palo Verde Mesa and west of the Colorado River. Rather than sloping directly east toward the Colorado River, the Palo Verde Valley floor gently descends in a southwesterly direction, roughly parallel to the river route. Drainage across the valley floor is largely influenced by the historic ground surface leveling and other modifications from the predominant agricultural uses and is related with the PVID engineered irrigation delivery channels/canals conveying diverted Colorado River water from the Palo Verde Diversion Dam, located approximately 10 miles northeast of the project, to the agricultural properties in the valley region.

Unused irrigation water and surface drainages are returned to the Colorado River through the PVID outfall infrastructure at the south-end of the Palo Verde Valley Floor, approximately 20 miles southwest of the project. The Colorado River located approximately 5 miles east of the project and the immediate surrounding areas are part of the Ehrenberg Wash-Colorado River Watershed, HU 1503010406. This separate watershed is generally characterized by surface flows from the neighboring land on either side of the river. The Palo Verde Valley Watershed and associated irrigation system differs from the Ehrenberg Wash-Colorado River Watershed in that it drains southwesterly to outfall locations at the south-end of the Valley. The project site and corresponding watershed are not regulated under a Phase I or Phase II Municipal Separate Storm Sewer System Permit (MS4 Permit).

In the subsequent hydrology discussions, references to stormwater runoff, volumes, drainage, retention, and related dynamics, will pertain directly to the temporary conditions occurring after precipitation events. In these discussions, there will also be references to a controlling 100-year storm event, which is a storm event and resulting flood having a 1-percent chance of occurring in any given year. The rainfall amount and resulting runoff characteristics from this type of event are used to determine storm drain system capacities, including inlets, pipes, channels, and retention facilities.

Local and Project Site Hydrologic Conditions

The project site conditions are defined by agricultural uses recently consisting of cultivated row crops on approximately 26 acres out of the 33.62-acre gross site area. The cultivated area includes furrow or flood surface irrigation controls on visibly level ground. The furrows are small earthen trenches oriented east-west to convey irrigation water from PVID to the row crops. The western, northern, and eastern edges of the project site are distinguished by dirt access roads and earthen irrigation channels (ditches) with

earthen canal banks for separation from the cultivation area. The surface irrigation delivery facilities are operated by PVID and receive inflow from C Canal, located east of the project. The C Canal is one of the primary open irrigation delivery facilities conveying diverted Colorado River water to serve various agricultural properties along its path. The adjacent portion of C Canal is physically separated from the cultivation area by raised earthen banks with a dirt access road.

The northern ditch occupies a majority of the Hobsonway frontage and accepts inflow from C Canal via one slide gate and culvert at the northeast corner of the project site. The northern ditch visibly measures approximately 15 feet in width and 6 feet in depth. Two dirt crossings, supported by concrete culverts, allow access from Hobsonway into the cultivated area. One dirt crossing is located at the northeast corner of the property and the second is located closer to the mid-point of the northern boundary. A metal-framed advertising structure (billboard maintained by Lamar) is installed near the mid-point culvert crossing, just south of the northern ditch. The billboard does not appear to have illumination or other electrification facilities. The western ditch is technically an extension of the northern ditch, with a length of approximately 1,000 feet along the western edge of the property. The eastern ditch measures approximately 800 feet in length along the eastern edge of the property. One slide gate mechanism allows flows from C Canal, through a culvert and into a rip-rap outlet. At least four slide gates are constructed along the western slope of the eastern ditch to allow flood irrigation into the cultivated area.

Historically, the cultivation area occupying a majority of the property has maintained a relatively flat elevation of approximately 265 feet above sea level surrounded by raised banks. These ground conditions are controlled for crop irrigation purposes and are therefore absent of any naturally occurring slopes, gradients, or drainage courses, such as those related to washes, streams and rivers. The edge conditions occupied by earthen channels with raised banks supporting dirt access roads are a controlled condition in part operated by PVID for agricultural irrigation and maintenance purposes and do not represent stormwater considerations. Therefore, project site runoff from the cultivation area is considered self-contained. Incidental stormwater run-on via sheet flow may occur from tributary shoulders on the adjacent Interstate 10 Freeway on the south and Hobsonway on the north as these are at relatively higher grade than the site. Along Hobsonway, one curb opening is installed to convey street runoff toward the property.

The existing topographic conditions on the project site established and maintained for agricultural uses, including the presence of surrounding irrigation facilities, will be factored into the proposed grading, hydrology and stormwater management conditions with the new development.

In June of 2021, a Sladden Engineering team consisting of a California Registered Geologist and Registered Professional Engineer conducted percolation and infiltration testing across multiple locations of the site to evaluate the infiltration potential of the near-surface soil conditions as a design factor of the storm water management system. Representative results indicated a percolation rate ranging from 8.75 to 9.00 inches per hour, and infiltration rates ranging from 0.88 to 0.91 inches per hour. The same field testing also indicated a groundwater depth of approximately 7.5 feet below existing grade. The

representative infiltration rate and groundwater depth were factored into the storm drain design and the Edelweiss Sustainable Farms Preliminary Hydrology Report, subsequently discussed.

4.9.3 Regulatory Setting

As previously introduced, hydrology and stormwater management controls for land development activities are regulated under a framework of mandates at the federal, State, regional, and local level. The applicable requirements are aimed at preventing new land development from causing impacts to the chemical, physical, and biological integrity of receiving streams, rivers, and water bodies. These regulations apply at different stages of development, including planning, design, construction and post-construction, such that physical land disturbance, vegetation clearing, earth movement, grading, construction activities, and facility operations would not be approved or permitted to occur without demonstrating compliance with the permitting authorities.

Federal

Federal Clean Water Act

The Clean Water Act (CWA) of 1972 was enacted to restore and maintain the chemical, physical, and biological integrity of the nation's waters by regulating the discharge of pollutants to waters of the U.S. from point sources. As part of the NPDES program, subsequent amendments to the CWA established a framework for regulating non-point source discharges from urban land runoff and other diffuse sources that were also found to contribute to runoff pollution. Under CWA, the EPA delegated the NPDES permit program to various State, Tribal, and territorial governments, enabling them to perform many of the permitting, administrative, and enforcement aspects of the program. California is a delegated NPDES state and has authority to administer the NPDES program within its limits. The pertinent sections of the CWA regulatory structure are summarized below:

Section 102 requires the planning agency of each state to prepare a basin plan to set forth regulatory requirements for protection of surface water quality, including designated beneficial uses for surface waterbodies, and specified water quality objectives to protect those uses.

Section 303(d) requires each state to provide a list of impaired surface waters that do not meet or are expected not to meet state water quality standards as defined by that section.

Section 402 requires that all point-source discharges, including but not limited to, construction-related runoff discharges to surface waters and some post-development dischargers, be regulated through the NPDES program. Project sponsors must obtain an NPDES permit from the State Water Resources Control Board (SWRCB).

National Flood Insurance Program

The Federal Emergency Management Agency Flood Insurance Rate Maps serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. As mandated by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973, FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized federal flood insurance to residents of communities where future floodplain development is regulated. FEMA has developed FIRMS to determine the need for and availability of federal flood insurance. FIRM maps rely on a variety of flood risk information based on historic, meteorological, hydrologic and hydraulic data, as well as existing development, open space and topographic conditions within an area. FEMA mapping also incorporates the results of engineering studies to delineate Special Flood Hazard Areas (SFHAs), which are considered at higher risk of inundation and flood-related hazards.

State and Local

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code section 13000 et seq.) is the principal law governing water quality regulation for surface waters in California, thus effectuating the delegated provisions of the federal CWA and its NPDES program. It has set forth a comprehensive program to protect water quality and the beneficial uses applicable to surface waters, wetlands, and ground water and to point and nonpoint sources of pollution. The Porter-Cologne Act establishes that, as a matter of policy, all the waters of the State shall be protected; all activities and factors affecting the quality of water shall be regulated to attain the highest water quality within reason; and that the State must be prepared to exercise its full power and jurisdiction to protect the quality of water in the State from degradation.

To regulate and protect water quality pursuant to NPDES and to exercise rulemaking and regulatory activities, the Porter-Cologne Act established the SWRCB and nine California Regional Water Quality Control Boards (RWQCBs). In this context, the project site and City of Blythe are located within Region 7, Colorado River Regional Water Quality Control Board.

Another mechanism of the Porter-Cologne Act is the requirement to adopt water quality control plans containing the guiding policies of water pollution management in the State. Under this framework, the Colorado River Basin Water Quality Control Plan (Basin Plan) serves as the applicable document prepared, adopted, and maintained to identify the existing and potential beneficial uses of waters of the State and establish water quality objectives to protect these uses. The Basin Plan contains the region's beneficial uses for surface waters, water quality objectives for protection of beneficial uses, and implementation programs to achieve water quality objectives. As previously introduced, the project site is located within the East Colorado River Planning Area of the Basin Plan.

NPDES Stormwater General Permit for Construction Activities

Under Section 402 of the federal CWA, discharges of stormwater from construction sites must comply with the conditions of a NPDES permit. The SWRCB has adopted the Construction General Permit that applies to projects resulting in 1 or more acres of soil disturbance. These requirements occur under the State's most current Construction General Permit (CGP), Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ. Compliance with the CGP involves the development and implementation of a project-specific Storm Water Pollution Prevention Plan (SWPPP), designed to prevent potential adverse impacts to surface water quality, including erosion and siltation, during the period of construction. The SWPPP is required to provide limits of temporary disturbance and will indicate the specific locations where stormwater Best Management Practices (BMPs) will be implemented. Stormwater BMPs refer to a schedule of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent, eliminate, or reduce the pollution of receiving waters. BMPs are standardized in a handbook made available by the California Stormwater Quality Association (CASQA). Consistent with Section XIV of the CGP, the required SWPPP must also specify the necessary recordkeeping, relevant good site "housekeeping" requirements, proper waste management, proper handling and storage within the allowable construction limits. The SWPPP must be prepared by a registered Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP) to ensure that the proper expertise is applied toward these plans.

Municipal Separate Storm Sewer System

In 1987, Congress amended the Federal CWA to require public agencies which serve urbanized areas with a population greater than 100,000 to obtain permits to discharge urban stormwater runoff from municipally owned drainage facilities including streets, highways, storm drains and flood control channels. In November 1990, the EPA promulgated enforceable regulations establishing MS4 Permit requirements under its NPDES Program. In California, EPA has delegated its NPDES permitting authority to the SWRCB, which issues and enforces NPDES MS4 Permits through its nine designated regions.

The project site is located within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (Region 7), which includes all of Imperial County and portions of San Bernardino, Riverside, and San Diego Counties. The project site and City of Blythe are not part of an existing Phase I NPDES MS4 Permit.

In April of 2003, the State Water Resources Control Board issued a General Permit for the Discharge of Storm Water from Small MS4s (WQ Order No. 2003-0005-DWQ) to provide permit coverage for smaller municipalities (population less than 100,000), including non-traditional Small MS4s, which are facilities such as military bases, public campuses, prison and hospital complexes. The Phase II Small MS4 General Permit covers Phase II Permittees Statewide. On February 5, 2013 the Phase II Small MS4 General Permit 2013-0001 DWQ was adopted and will become effective on July 1, 2013. The project site and City of Blythe are not part of a Phase II NPDES MS4 Permit.

Groundwater Resources

California's Groundwater Update 2020 (Bulletin 118), completed in November of 2021 by the California Department of Water Resources, is the State's most current compendium of Statewide data and information on groundwater resources and management, building on the information from prior Bulletin 118 publications. According to this source, the project site is located within the Colorado River Hydrologic Region and is underlain directly by the Palo Verde Mesa Groundwater Basin (Basin Number 7-039). The eastern portion of Blythe is underlain by the Palo Verde Valley Groundwater Basin (Basin Number 7-038). The Palo Verde Mesa and Palo Verde Valley Groundwater Basins are the sole source of water to the City of Blythe. The City does not have direct water rights to Colorado River water. The diverted canal water conveyed across the City of Blythe and Palo Verde Valley for irrigation purposes is managed by PVID as a separate entity and is not considered a source of drinking water. Instead, the City relies solely on local groundwater with aquifer depths of up to 800 feet or greater. The storage capacity of local groundwater resources is estimated at 5 million acre-feet (MAF). Groundwater recharge is provided by the Colorado River, unlined drainage canals via seepage, and seepage losses from applied irrigation water on up to 104,500 acres on the valley floor. The Department of Water Resources (DWR) estimates that up to 500,000 acre-feet per year (AFY) seep into the basin from unlined canals.

In 2014, the California Legislature signed a three-bill legislative package into law, collectively known as the Sustainable Groundwater Management Act (SGMA). SGMA allows local agencies to manage groundwater resources in a sustainable manner, with management efforts tailored to the resources and needs of their specific communities. Groundwater management is described as the planned and coordinated monitoring, operation, and administration of a groundwater basin's sustainability. SGMA requires that a Groundwater Sustainability Plan (GSP) or Alternative Plan to a GSP (Alternative Plan) be adopted for basins and subbasins designated by the DWR as medium- and high-priority basins. Basin prioritization is based on a variety of factors such as population, number of wells, and other information determined to be relevant by DWR. SGMA requires that a Groundwater Sustainability Agency (GSA) be established to manage the basin and develop the plan. The GSP or Alternative Plan must explain how the groundwater basin will be kept in balance, to achieve long term sustainability. DWR evaluates each GSP or Alternative Plan in how well it will achieve basin sustainability. The project region includes groundwater basins (7-038 and 7-039), which are not required to develop GSPs and GSAs for being considered low and very low-priority basins.

In May of 2021, the Final Draft of the 2020 Urban Water Management Plan (2020 UWMP) for the City of Blythe was prepared to comply with the Urban Water Management Planning Act and to document water uses, reclamation, and conservation activities. The 2020 UWMP estimates that in the past years, groundwater extraction as averaged 3,600 FY per year.

The Palo Verde Mesa and Palo Verde Valley Groundwater Basins are considered to have good water quality, with salinity being the most notable impairment to water quality. The basin aquifers are replenished by underflows from the Colorado River, unlined canals, and seepage losses of applied

irrigation water on up to 104,500 acres on the Valley floor. The deeper aquifers are generally considered to have higher quality due to the higher degree of filtration.

City of Blythe Code of Ordinances

16.32.040 - Drainage facilities

Drainage facilities shall be installed as deemed necessary by the City Engineer to provide for the removal of surface water. Such drainage facilities shall be of a character and design approved by the city engineer and in accordance with the requirements of the standard specifications referred to in Section 16.32.010, in order to ensure proper grading and erosion control, including the prevention of sedimentation or damage to off-site property.

4.9.4 Project Impact Analysis

Thresholds of Significance

The following standards and criteria have been drawn from Appendix G: Environmental Checklist Form of the CEQA Guidelines. Development of the Edelweiss Project site would have a significant effect on hydrology and water quality if it is determined that the project would:

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?
b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?
c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:
    i. Result in substantial erosion or siltation on- or off-site;
    ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;
    iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or
    iv. impede or redirect flood flows?
d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?
e. Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Methodology

The relevant findings throughout this section rely in part on the project's preliminary engineering plans that account for grading, drainage, stormwater management, and other aspects of hydrology and water quality. These documents include the Edelweiss Sustainable Farms Preliminary Hydrology Report, dated March 24, 2022, and the Percolation/Infiltration Testing for On-Site Storm Water Management Report, dated June 22, 2021. A representative infiltration rate of 0.90 inches per hour was extrapolated from the above-noted testing results as a design factor of the storm water management system and other hydrology considerations in the Edelweiss Sustainable Farms Preliminary Hydrology Report. The preliminary hydrology report also included a water quality management analysis to confirm that the first-flush volume will be contained on-site as a portion of the larger quantity associated with the controlling 100-year storm event. These plans will be subject to final engineering design and City plan review prior to approval and any form of implementation. It is also worth noting that in subsequent discussions, references to stormwater runoff, volumes, drainage, retention, and associated dynamics, will pertain to the temporary drainage conditions resulting from precipitation events. Moreover, references to the 100-year controlling storm event and retention requirements pertain to the increase in runoff volume resulting from a one-hundred-year storm with a time duration which generates the maximum stormwater quantity.

The Preliminary Hydrology Report delineated a hydrologic area totaling 31.868 acres of the post development condition as part of the methodology to quantify for the tributary or drainage characteristics to be handled by the project. The calculation considered the proposed extent of grading and associated improvements, such as buildings, pavement, landscaping, and barrier curb in relation to the surrounding conditions to delineate the appropriate hydrologic limit lines. As a function of the drainage design, the hydrologic limits excluded the north irrigation channel since it will be protected from project run-on or run-off conditions, but included the tributary portion of Hobsonway, beyond the project boundary, since this area will be accepted by the project. On the east side, the drainage area is defined by the proposed easterly barrier curb since that project feature will control the run-on and run-off conditions. The west and south drainage boundaries are defined by the property limits. Based on this methodology, the hydrologic area of 31.868 acres slightly differs from other project area calculations, such as the assessed, gross, and net acreages discussed in other sections of this document.

Project Design Features

The proposed project involves an on-site private storm drain system with distributed facilities designed to properly convey, capture, and retain stormwater runoff on-site while achieving compliant surface water quality management and protecting on- and off-site property from the incremental increase in stormwater volume resulting from the controlling (worst-case) storm event for the project's hydrologic area. The proposed improvements are also required to demonstrate compliance with the City's drainage standards, such that they include proper grading, erosion control, and prevention of sedimentation or damage to off-site properties under Section 16.32.040 of the City's Code of Ordinances.

Per the preliminary grading plan and hydrology report, stormwater runoff from a majority of the project's outdoor impervious surfaces (rooftops, hardscape, pavement) will be conveyed in a controlled manner via sheet and gutter flows into multiple catch basins connected via sub-surface lines to designated underground storage structures. The project involves a total of 18 proposed underground retention locations expected to consist of perforated storage pipe, sized and configured according to the site-specific geotechnical considerations. These facilities are distributed throughout the north, center, and south portions of the site to prevent concentrated flows and to manage the size of their respective tributary areas.

Furthermore, runoff volumes in excess of the underground storage capacity and from a central portion of the project will be conveyed via sheet and gutter flows into two equally sized and centrally located surface retention basins with a depth of 3 feet and a combined area of approximately 1.5 acres. These surface basins will have a 3-to-1 maximum side slopes for stability with inflow occurring via multiple 3-foot-wide concrete "U" channels with rip-rap at the outlets as a form energy dissipation for erosion and siltation control. The combined retention capacity to be provided by the project is estimated at 210,348 cubic feet, sufficient to contain the incremental increase in stormwater volume resulting from the controlling 100-year storm event for the project's hydrologic area.

By design, the south half of the Hobsonway frontage will be improved and allowed to drain into the on-site storm facilities via proposed curb and gutter. This design will improve upon the stormwater management for a portion of the public street, which currently has unimproved shoulders and lacks proper storm drain facilities. The existing irrigation facilities along the east, north, and west edges of the project site will not be hydrologically connected to or comingled with the on-site storm drain facilities as part of the routine operations. Instead, they'll be improved with new irrigation culverts to enhance their delivery efficiency and will be separated from project runoff by barrier curb and proper grade separations.

The purpose and function of the proposed underground and surface retention facilities introduced with the project is to collectively accept and percolate the site's incremental increase in stormwater volume generated from the worst-case 100-year storm event. As previously mentioned, these facilities will only accept runoff from outdoor surfaces (surfaces exposed to rain), such as rooftops, hardscape, paved areas, and landscaping. These facilities are not designed or allowed to accept non-stormwater flows or any other discharges generated from indoor operations. All storm drain facilities will be subject to proper inspection, operation and maintenance during the life of the project to maintain their effectiveness. To prevent stormwater from being exposed to potential pollutants, the project will implement a binding Water Quality Management Plan with source control measures and best management practices aimed and pollution prevention. Through the proposed on-site containment and protection of surrounding uses, the project will prevent stormwater discharge in a manner that results in off-site hydrologic modifications or impairments to downstream resources.

Project Impacts

a. Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

As defined in Section 13374 of the California Water Code (CWC), the term "Waste Discharge Requirements" (WDRs) is equivalent of the term "permits" and therefore pertains to a process involving general permits to regulate similar groups or activities, such as construction or municipal, or as individual permits to regulate specific owners, operators or facilities. The relevant WDRs to the project include the Statewide NPDES Construction General Permit, the coverage of which is obtained from the California Water Boards by filing the proper registration documents and associated compliance plans subsequently discussed.

Construction Storm Water Pollution Prevention Plan

During the period of construction, the project's short-term construction activities have the potential to result in the occurrences of erosion, siltation, and pollution if they are not properly controlled. Therefore, it is necessary to comply with the waste discharge requirements, permit registration and coverage process under the *NPDES General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities*, Order No. 2009-0009-DWQ, as amended by 2010-0014-DWQ and 2012-006-DWQ. This permit is otherwise known as the Statewide CGP, applicable to any construction or demolition activity, including, but not limited to, clearing, grading, grubbing, or excavation, or any other land disturbance activity equal to or greater than one acre.

The project's extent of land disturbance is greater than one acre and therefore triggers the CGP coverage requirement and the associated plan implementation process. Failure to obtain coverage under the CGP would be a violation of the CWA and the California Water Code, therefore project's permit registration process, compliance plans, and measures are not considered voluntary or mitigatory.

Compliance with the CGP requires the development and implementation of a project-specific SWPPP, designed by a registered Qualified SWPPP Developer (QSD) professional to prevent potential adverse impacts to surface water quality during the entire period of construction and for all disturbed land surface areas, including those associated site preparation, mobilization, grading, and vertical construction activities through completion and final stabilization. The SWPPP is required to identify a strategy of storm water BMPs in accordance with Section XIV (SWPPP Requirements) of the CGP. Storm water BMPs refer to a schedule of activities, prohibitions, practices, maintenance procedures, and other management practices to prevent, eliminate, or reduce the pollution of the receiving waters, primarily focused on preventing erosion, siltation, illicit discharge, and contamination. Consistent with Section XIV of the CGP, the required SWPPP must specify the necessary recordkeeping, relevant good site housekeeping requirements, proper waste management, proper handling, and storage within the allowed construction limits. In this context, BMPs are standard requirements established by the

California Stormwater Quality Association (CASQA) and are therefore not deemed mitigation. The SWPPP will also account for construction logistics information, final engineering design, and contractor's input, so it is often prepared concurrently with final engineering design as a requirement of the City's grading permit checklist. Compliance with the State's CGP during construction is regulated and enforced as part of the Colorado River Regional Water Quality Control Board (RWQCB Region 7) inspection and audit authority indicated in Section 13267 of the Porter-Cologne Water Quality Control Act. Although the development and implementation of a SWPPP is a regulatory requirement under the CGP, the SWPPP will be required as **Mitigation Measure HWQ-1,** to ensure the proper controls for soil erosion, siltation, and construction-related pollution. In order to properly close the CGP coverage upon project completion, the project proponent will be required to provide sufficient evidence to RWQCB Region 7 that the site has been stabilized through permanent improvements and that any risk of construction-related impacts to surface water quality has been eliminated. This permit closure is achieved through the Notice of Termination (NOT) process, which involves RWQCB Region 7 approval after a review of the supporting documentation and field verification. The NOT criteria that must be met by the developer is as follows:

- Final site stabilization has been achieved
- All elements of the SWPPP have been completed
- All potential sources of construction-related stormwater pollutants have been eliminated
- All construction materials and waste have been disposed of properly
- All construction-related equipment, materials, and any temporary BMPs no longer needed have been removed from the site
- Compliance with post-construction standards has been demonstrated
- A post-construction BMP long-term maintenance plan has been established.

Therefore, through the implementation of **Mitigation Measure HWQ-1,** which requires compliance with the applicable NPDES CGP requirements during the period of construction, the project will result in less than significant impacts pertaining to violations of any water quality standards, waste discharge requirements, or degradation of surface or ground water quality.

Post-Construction Stormwater Management

The project design features include a private storm drain system designed to capture and retain stormwater runoff from the entire project site and from an off-site tributary portion of Hobsonway to the north. The proposed storm drain system and runoff will not be connected or comingled with the adjacent PVID irrigation delivery channels as part of the routine operations. Instead, these facilities will be separated from project flows via barrier curb and grade separations. The design criteria for sizing of the inlets, conveyances, and retention systems are based on the incremental increase in stormwater volume resulting from the worst-case 100-year storm event for the site and development. In doing so, the project will prevent stormwater runoff discharge up to the design condition. All storm drain facilities and retention systems will be privately operated and maintained during the life of the project, such that they will not add or impede the City's public works operations.

Although the project site is not located within a Municipal Storm Water Program, the proposed stormwater management method is functionally equivalent to the traditional requirements of an MS4 pertaining to the post-construction regulation of stormwater quantity and quality.

In summary, during construction, the proposed development will be required to implement **Mitigation Measure HWQ-1**, which involves temporary controls under the scope of the SWPPP and NPDES CGP framework. Upon construction completion and during the life of the project, the proposed operations will rely on the permanent Project Design Features for stormwater management as the method to prevent violations or impacts to surface water quality standards and waste discharge requirements pertinent to surface or ground water quality. Impacts are reduced to less than significant with the implementation of mitigation.

b. Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin

The Palo Verde Mesa (Basin Number 7-039) and Palo Verde Valley (Basin Number 7-038) Groundwater Basins are the sole source of potable municipal water to the City of Blythe and the project area, which is separate from the agricultural irrigation delivery system operated by PVID using diverted Colorado River water. The local aquifers have an estimated storage capacity of 5 MAF. The Palo Verde Mesa and Palo Verde Valley Groundwater Basins are considered to have good water quality, with salinity being the most notable impairment. The deeper aquifers are generally considered to have higher quality due to the higher degree of filtration.

Within the framework of the Sustainable Groundwater Management Act (SGMA), the two local groundwater basins (7-038 and 7-039) relevant to the City of Blythe and project area are categorized as low and very low-priority basins and therefore are not required to establish a Groundwater Sustainability Agency (GSA) or develop Groundwater Sustainability Plan (GSP). According to the 2020 UWMP, the City owns a total of fifteen groundwater wells, of which five are active full time and the remainder are either seasonal, standby, or inactive. Due to the high quality of groundwater, the only form of treatment is chlorination.

In its current condition, the project site receives irrigation water from PVID via existing irrigation delivery channels and C Canal and is also within the City of Blythe's potable water service area. The proposed development will convert the project site's primary water demand from irrigation to potable. The project will connect to existing water delivery infrastructure, being one main water line located on Hobsonway immediately north of the project. Senate Bill 610 requires the preparation of a water supply assessment (WSA) for a range of project categories that are defined by Water Code Section 10912. Because the project falls under the applicable square footage requirements specified in Water Code Section 10912, the most relevant category to which the project could potentially qualify as a "project" is measured by

a water demand level equivalent to, or greater than, the amount of water required by a 500 dwelling unit project. A preliminary engineering analysis has determined that a 500 dwelling unit development on a 34-acre site would require a minimum of approximately 141 AFY. By comparison, the proposed project would be expected to entail water demand ranging approximately 97 to 100 AFY, therefore not reaching the equivalent levels of 500 dwelling units on a comparable project site size and not meeting the criteria under SB 610 for warranting a WSA. By this measure, water demand from the project is not expected to affect the City's existing water supply and groundwater resources.

As a separate function, stormwater runoff generated from the project will be conveyed to on-site retention facilities designed to infiltrate such content instead of allowing it to leave the site as discharge. Such infiltration disposal will contribute to groundwater recharge. Therefore, the project is not expected to interfere with the regional groundwater recharge functions or groundwater sustainability for the regional basins. Less than significant impacts are anticipated.

c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

ci. Result in substantial erosion or siltation on- or off-site

Historically, the site use has been agricultural in nature with operation and maintenance of irrigation improvements consisting of irrigation furrows across a level crop cultivation area at a relatively lower grade than its surroundings. Surface irrigation flows are provided to the site via slide gates from the existing PVID irrigation channels located on the west, north, and east sides of the project property. PVID irrigation facilities are separated from the field with earthen levees and embankments. According to the United States Department of Agriculture (USDA) – Soil Survey of Palo Verde Area, California, the property is underlain by five soil types: Holtville silty clay (Hc), Cibola silty clay loam (Cs), Gilman silty clay loam (Gc), Ripley silty clay loam (Rc), and Meloland fine sandy loam (Md). These soil types are part of USDA's Group C hydrologic soils classification, which are characterized by higher runoff potential and lower infiltration capacity. Group C soils typically have between 20 percent and 40 percent clay and less than 50 percent sand and have loam, silt loam, sandy clay loam, clay loam, and silty clay loam textures. Therefore, the on-site soils in the current agricultural setting are generally more prone to erosion and siltation when not properly controlled. To address this condition, all existing site conveyances, grade differentials and cultivation fields are actively managed through routine maintenance. This includes any incidental stormwater run-on via sheet flow occurring from tributary shoulders on the adjacent Interstate 10 Freeway on the south and Hobsonway on the north, as these are at relatively higher grade than the site. Being absent of any naturally occurring drainage patterns, such as those associated with washes, streams, or rivers, the proposed development will not involve any diversion or alteration of such resources. During the period of construction, soil disturbance will be regulated under a properly filed

SWPPP, which is required to include temporary erosion and siltation control measures, such as linear sediment barriers and soil stabilization.

The project will introduce improved culverts at the existing irrigation channels, but will maintain their overall operating condition under PVID. The proposed storm drain system and runoff management will operate separately from the PVID irrigation system. In the developed conditions, runoff from proposed buildings, hardscape, parking, and landscaping will be adequately conveyed along engineered flow lines (sheet flow, curb/gutter, and pipes) to the on-site retention facilities sized for the extent of the project and adjoining tributary street flows. The stabilized runoff conveyance surfaces will prevent instances of substantial erosion or siltation. The incremental increase in stormwater runoff volume resulting from the project's addition of impervious surfaces will be adequately managed through the provided retention capacity with associated maintenance. As such, pertaining to erosion or siltation on- or off-site, less than significant impacts are expected.

cii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;

The FEMA Flood Insurance Rate Maps serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. The project site is covered by FIRM panel 06065C3230G, effective August 28, 2008, which indicates that the entire site is Zone D with an undetermined flood risk. The same FIRM panel does not identify any Special Flood Hazard Area (SFHA) with High Flood Risk near the property. Existing runoff across the site is a function of the surface irrigation system and associated controls accepting water from adjacent PVID irrigation channels, rather than from naturally occurring conditions. The proposed improvements will avoid any significant changes to the existing PVID irrigation facilities and will operate separately from them in the proposed runoff management.

The proposed development and land use conversion from traditional agricultural uses will result in an increase in impervious cover. The associated runoff conditions, including rate and quantity, is addressed through the proposed storm grading and storm drain system designed to convey runoff along engineered flow lines to designated on-site retention systems consisting of underground structures and surface basins, which will be distributed across the site and will be sized according to the worst-case (controlling) 100-year storm event. By design, the south half of the Hobsonway frontage will be improved and allowed to drain into the on-site storm facilities via proposed curb and gutter. This design will improve upon the stormwater management for a portion of the public street, which currently has unimproved shoulders and lacks proper storm drain facilities. All proposed structures will be elevated at least one foot above grade to establish flood protection of these facilities. As a result, the project will not result in any increase in surface runoff that isn't accounted for in the grading and hydrology design for on-site facilities. As a standard condition, the project will not involve any routine runoff discharge to surrounding land or other

condition capable of resulting in flooding. Regarding project runoff increases and the associated flood conditions, on- or off-site site, less than significant impacts are anticipated.

ciii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or

The proposed development will incorporate on-site storm drain system improvements designed to capture and infiltrate stormwater runoff through retention facilities corresponding to each on-site drainage management area and adjoining street tributary areas. This stormwater management also includes off-site tributary street runoff. These facilities will only accept runoff from outdoor surfaces (surfaces exposed to rain), such as rooftops, hardscape, paved areas, and landscaping. These facilities are not designed or allowed to accept non-stormwater flows or any other discharges generated from indoor operations. All storm drain facilities will be subject to proper inspection, operation and maintenance during the life of the project to maintain their effectiveness in preventing stormwater from being exposed to potential pollutants. Through the proposed on-site containment and protection of surrounding uses, the project will prevent stormwater from discharging in a manner that results in off-site hydrologic modifications or impairments to downstream resources. Regarding project runoff contribution capable of creating a burden on existing or planned stormwater infrastructure, or substantial increases in polluted runoff, less than significant impacts are anticipated.

civ. Impede or redirect flood flows?

Based on FEMA FIRM panel 06065C3230G, the project site and most of the City of Blythe are considered to be in a Zone D designation, which applies to areas with undetermined flood risk and outside of the mapped SFHA. The existing agricultural site conditions include surface irrigation improvements served by surrounding PVID-maintained channels via gate controls. Therefore, the site does not occur in the context with naturally occurring drainage patterns or mapped flood conditions, on- or off-site that would be subject to redirection or obstruction.

The proposed development will include a storm drain system with properly located and sized inlets, conveyances, and retention facilities for handling the stormwater runoff from the site and from a tributary off-site portion of Hobsonway on the north. The on-site retention capacity will be sized for the incremental increase in stormwater volume resulting from the controlling 100-year storm event and all proposed structures will be situated at least one foot above the design surface levels for stormwater management. Therefore, project implementation will not result in physical improvements or stormwater runoff discharge that would obstruct, impede, or otherwise direct designated flood zones or naturally occurring floodplains. The project will not place any proposed structures in high-risk or SFHA designations. Regarding potential impedances or redirection of flood flows, less than significant impacts are anticipated.

d. In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation

As indicated above, FIRM Panel Number 06065C3230G, applicable to the site since August 28, 2008, identifies the current FEMA flood zone designations, which are categorized by lettered identifiers with corresponding levels of risk. The entire site and most of the City of Blythe are located in Zone D, which applies to areas with undetermined flood risk. No SFHA designation applies to the project site.

Moreover, the project is not located near any coastal areas and therefore is not prone to tsunami hazards. The project is not located near any large body of water or any area recognized for being susceptible to seiche risk. Existing irrigation channels located on the west, north and east side of the site are maintained by PVID.

On-site inundation conditions are prevented by a storm drain system with on-site runoff retention sized to the worst-case controlling storm event for the site. The proposed buildings will be situated at least one foot above grade for flood protection. Therefore, pertaining to flood, tsunami, seiche zone, or pollutant releases associated with project inundation, less then significant impacts are expected.

e. Conflict or obstruct implementation of a water quality control plan or sustainable groundwater management plan

The project site is located within the jurisdiction of the Colorado River Basin Regional Water Quality Control Board (Region 7) and under the Water Quality Control Plan for the Colorado River Basin Region (Basin Plan). The project site and City of Blythe are not part of an existing Phase I NPDES MS4 Permit or other locally established watershed or sub-watershed plan.

During the period of construction, the project will comply with the Statewide NPDES Construction General Permit by filing a Notice of Intent (NOI) with the applicable permit registration documents and project-specific compliance plan to obtain coverage. Permit coverage will be demonstrated to the City prior to issuance of a grading permit or other site disturbance.

During the life of the project, the proposed storm drain system will provide equivalent measures of low impact development stormwater management that are typically required under Phase I NPDES MS4 Permitting. Through an on-site storm drain system with adequately sized retention systems, the project operations will prevent changes to the hydrologic regime that would have any potential to impact downstream channels, receiving waters, or habitat integrity, which is a typical measure in determining MS4 compliance. Since the system will be privately maintained, no public agency will incur a maintenance burden for the site's storm drain operations. With the proposed project design features, the operational aspects of the project will comply with the regulatory water quality objectives of the Basin Plan by preventing urban runoff and any impairments to naturally occurring and regulated resources.

Pertaining to the sustainable groundwater management, the project's water demand is expected to be fulfilled by the City's municipal system, which relies on local groundwater resources. As a project design feature, the proposed indoor water recycling and efficiency operations will substantially reduce the project's demand to levels that would not warrant a water supply assessment. Moreover, as a separate system, the proposed stormwater management facilities will ensure that the project runoff is retained and infiltrated on-site versus resulting in off-site runoff discharge. Less than significant impacts are anticipated.

4.9.5 Cumulative Impacts

A "cumulative impact" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. For purposes of assessing the proposed project's cumulative impact with respect to hydrology/water quality, the cumulative analysis is based upon a list approach to determine the proposed project's contributing effect on potential cumulative impacts. All of the cumulative projects identified in **Table 4.0-1** are considered in this cumulative analysis.

As evaluated throughout this section, project implementation will involve a land use conversion from agricultural row crop cultivation to an indoor cannabis cultivation facility with a private storm drain system designed to establish hydrology and water quality management through the capture, conveyance, and retention of the entirety of urban runoff generated from the proposed building rooftops, hardscape, and paving exposed to precipitation. In addition, incidental off-site tributary street areas on the north and south side of the project site would be accepted by the project for adequate on-site retention. The method of retention would involve multiple surface and underground facilities designed to accept and infiltrate stormwater volume up to the controlling 100-year storm event. Development of the proposed project, in conjunction with cumulative projects surrounding the project site, has the potential to increase the concentration of pollutants in surface runoff and downstream water quality. However, all cumulatively considered projects would be subject to the same federal water quality standards and State waste discharge requirements as the proposed project. This includes preparation of project-specific SWPPPs per the NPDES permit program and implementation of associated BMPs to prevent construction-related runoff from polluting receiving waters.

As such, the traditional impacts of land development that result in land use conversions lowering the land capacity to intercept, retain, and infiltrate stormwater runoff are not foreseeable significant impacts resulting from this project or reasonably foreseeable projects in the geographic area. By association, the proposed project is not expected to result in conditions that substantially increase stormwater runoff volume, time of concentration, or peak discharge that in turn would burden the local municipal stormwater system or cause hydromodifications that worsen surface water quality impairments. The existing regulatory framework established at the federal, State, regional, and local level is inherently designed to prevent land development activities from incurring or causing such hydrologic or water

quality impacts. As such, the project is not expected to result in cumulative impacts to hydrology or water quality.

4.9.6 Mitigation Measures

HWQ-1 The project proponent must comply with the most current Construction General Permit (CGP) (Order No. 2009-0009-DWQ as amended by 2010-0014-DWQ and 2012-0006-DWQ). Compliance with the CGP involves the development and implementation of a project-specific Stormwater Pollution Prevention Plan (SWPPP), which is designed to reduce potential adverse impacts to surface water quality during the period of construction. The SWPPP must identify the locations and types of construction activities requiring BMPs and other necessary compliance measures to prevent soil erosion and stormwater runoff pollution. A Notice of Intent (NOI) to implement a SWPPP must be submitted to the State Water Resources Control Board (SWRCB) who will issue a Waste Discharge Identification (WDID) number. The SWPPP and WDID must be kept on site during the period of construction.

4.9.7 Level of Significance After Mitigation

With implementation of **Mitigation Measure HWQ-1,** impacts associated with hydrology and water quality would be reduced to less than significant levels.

4.9.8 Resources

1. Federal Clean Water Act (CWA), Environmental Protection Agency, https://www.epa.gov/laws-regulations/summary-clean-water-act
2. Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) 06065C3230G, effective August 28, 2008.
3. California's Groundwater Update 2020 (Bulletin 118), November 2021
4. Water Quality Control Plan for the Colorado River Basin Region (Basin Plan), January 2019.
5. Whitewater River Region Water Quality Management Plan for Urban Runoff and the associated Whitewater River Watershed MS4 Permit, effective June 20, 2013.
6. City of Blythe California 2020 Urban Water Management Plan (Final Draft), May 2021

4.10 Noise

4.10.1 Introduction

This section describes the existing acoustic setting at the project site and in the vicinity and evaluates the potential noise exposure that could result from build-out of the Edelweiss Sustainable Farms project. Information for this section was obtained from the *Edelweiss Sustainable Farms Noise Impact Analysis ("*Noise Study*")*, prepared by Urban Crossroads, Inc., February 2022 (**Appendix L**), and Chapter 8, Noise Element of the Blythe General Plan, as well as the City's Municipal Code. Prior to the preparation of the Draft EIR, a Notice of Preparation (NOP) was prepared using Appendix G, Environmental Checklist Form, in the CEQA Guidelines. Appendix G assesses the potential impacts associated with noise at the project property. The Edelweiss Sustainable Farms NOP is included in **Appendix A** of this Draft EIR. Following the screening criterion related to noise in the NOP, the following does not require additional analysis in this Draft EIR.

For a project located within the vicinity of a private airstrip land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels:

- The project site is not within two miles of a public airport. The project site is located approximately 5.10 miles southeast of Blythe Airport. Therefore, the project site is not located within two miles of a public airport or the vicinity of a private airstrip. The project would not expose people residing or working in the area to excessive airport noise levels. Therefore, the project would have a no impact and no additional analysis is required.

Issue areas identified as having no impacts are further discussed in **Chapter 6.0, *Effects Not Found to Be Significant,*** of this Draft EIR.

4.10.2 Existing Conditions

Existing Noise Environment

The development area of the project encompasses approximately 34 acres, located south of Hobsonway, approximately 0.25 miles east of South Defrain Boulevard, and north of the Interstate 10 freeway in Blythe. The nearest residential land use is located west of the project site. The closest school to the project property is Palo Verde High School, located approximately 0.56 miles northeast of the project. the project is bordered by Hobsonway and undeveloped land to the north; C Canal (maintained by the Palo Verde Irrigation District) and undeveloped land to the east; residential and agricultural uses to the west; and the Interstate 10 freeway and residential and agricultural uses to

the south. The closest airport is the Blythe Airport, located approximately 5.10 miles northwest of the project site.

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations near the project. The locations were selected to describe and document the existing noise environment near the project area (indicated in **Exhibit 4.10-1**, ***Noise Measurement Locations***). To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, November 10th, 2021.

The noise measurements focus on the average or equivalent sound levels (Leq). The Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. The hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location determined that daytime energy average noise levels (dBA Leq) ranged from 47.5 dBA Leq to 65.1 dBA Leq; while the nighttime noise level ranged from 49.8 dBA Leq to 60.4 dBA Leq. The lowest noise level measurements occurred north of the project site near a single family residence at 301 San Jacinto Way (L1 in **Exhibit 4.10-1**); while the highest measurements occurred at 850 West Hobsonway, near Red Roof Inn Blythe (L2 in **Exhibit 4.10-1**). This is discussed in greater detail in Section 4.10.4, *Existing Noise Level Measurements*, of this Noise Section.



N

LEGEND:

▲ Measurement Locations

Source: Exhibit 5-A, *Noise Study*, Urban Crossroads, Inc.

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

NOISE MEASUREMENT LOCATIONS
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.10-1

Proposed Project

The on-site project-related noise sources are expected to include roof-top air conditioning units, ventilation fans, and trash enclosure activity. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the project site. The Noise Study assumes the project will operate 24-hours daily for seven days per week.

4.10.3 Regulatory Setting

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the State have established standards and ordinances to control noise. Federal and State agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

Federal

Noise Control Act of 1972

The adverse impact of noise was officially recognized by the federal government in the Noise Control Act of 1972, which serves three purposes:

1. Publicize noise emission standards for interstate commerce;
2. Assist State and local abatement efforts; and
3. Promote noise education and research.

The Federal Office of Noise Abatement and Control (ONAC) originally was tasked with implementing the Noise Control Act. However, it was eventually eliminated, leaving other federal agencies and committees to develop noise policies and programs. Some examples of these agencies are as follows: The Department of Transportation (DOT) assumed a significant role in noise control through its various agencies. The Federal Aviation Agency (FAA) is responsible for regulating noise from aircraft and airports. The Federal Highway Administration (FHWA) is responsible for regulating noise from the interstate highway system. The Occupational Safety and Health Administration (OSHA) is responsible for the prohibition of excessive noise exposure to workers.

Federal Transit Administration

The Federal Transit Administration (FTA) is an agency within the U.S. Department of Transportation (DOT). The FTA provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trolleys, and ferries. The FTA also oversees safety measures and helps develop next-generation technology research.

In September 2018, the FTA published their *Transit Noise and Vibration Impact Assessment Manual* which is the third edition of a guidance manual originally issued in 1995. The Manual discusses procedures for predicting and assessing noise and vibration impacts of projects for different stages of development. The Manual provides descriptions of noise and vibration mitigation measures and construction noise and vibration.

The Noise Study utilized the FTA's guidelines for construction noise thresholds since the City of Blythe has not established numeric maximum acceptable construction source noise levels. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use. The numerical construction threshold is included in the FTA *Transit Noise and Vibration Impact Assessment Manual.*

Federal Interagency Committee on Noise

The Federal Interagency Committee on Noise (FICON) developed guidelines to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate to aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (Leq).

National Institute for Occupational Safety and Health

The National Institute for Occupational Safety and Health (NIOSH) prepared the Criteria for Recommended Standard: Occupational Noise Exposure which established a construction-related noise level threshold. A division of the U.S. Department of Health and Human Services, NOISH identifies a noise level threshold based on the duration of exposure to the source. The construction-related threshold starts at 85 dBA for more than eight hours per day, and for every 3 dBA increase, the exposure time is cut in half. This results in noise level thresholds of 88 dBA for more than four hours per day, 92 dBA for more than one hour per day, 96 dBA for more than 30 minutes per day, and up to 100 dBA for more than 15 minutes per day.

Occupational Safety and Health Administration

The Occupational Safety and Health Administration (OSHA) requires hearing protection be provided by employers in workplaces where the noise levels may, over long periods of exposure to high noise levels, endanger the hearing of their employees. Standard 29 (Labor) of the Code of Federal Regulations (CFR), Part 1910 indicates the noise levels under which a hearing conservation program is required to be provided to workers exposed to high noise levels.

State

State of California Noise Requirements

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which must be prepared per guidelines adopted by the Governor's Office of Planning and Research. The purpose of the Noise Element is to limit the exposure of the community to excessive noise levels. The City of Blythe Noise Element is included in the City's General Plan. In addition, CEQA requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

California Department of Health Services Office of Noise Control

The California Department of Health Services Office of Noise Control (ONC) was established in 1973 to develop regularity tools to control and abate noise for use by local agencies. One significant model is the "Land Use Compatibility for Community Noise Environments Matrix". The matrix allows the local jurisdiction to clearly delineate compatibility of sensitive uses with various incremental levels of noise.

California Department of Transportation

The California Department of Transportation (Caltrans) manages more than 50,000 miles of California's highway and freeway lanes, provides inter-city rail services, permits more than 400 public-use airports and special-use hospital heliports, and works with local agencies. Caltrans includes six primary programs: Aeronautics, Highway Transportation, Mass Transportation, Transportation Planning, Administration and the Equipment Service Center.

In April 2020, Caltrans updated the *Transportation and Construction Vibration Guidance Manual,* which was developed to provide guidance to engineers, planners, and consultants that address vibration issues associated with the construction, operation, and maintenance of the Caltrans projects. Since the City of Blythe does not establish standards regarding vibration, the *Transportation and Construction Vibration Guidance Manual* was utilized in the Noise Study to determine vibration damage and annoyance criteria and assess the potential temporary construction-related impacts at adjacent receiver locations.

State of California Building Standards

The State's noise insulation standards are codified in the California Code of Regulations, Title 24, Building Standards Administrative Code, Part 2, and the California Building Code. These noise standards are applied to new construction in California for controlling interior noise levels resulting

from exterior noise sources. The regulations specify that acoustical studies must be prepared when noise-sensitive structures, such as residential buildings, schools, or hospitals, are developed near major transportation noise sources, and where such noise sources create an exterior noise level of 60 dBA CNEL or higher. Acoustical studies that accompany building plans for noise-sensitive land uses must demonstrate that the structure has been designed to limit interior noise in habitable rooms to acceptable noise levels. For new residential buildings, schools, and hospitals, the acceptable interior noise limit for new construction is 45 dBA CNEL.

Local

City of Blythe General Plan

The City of Blythe has adopted Chapter 8, the Noise Element, of the General Plan which identifies polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level compatibility guidelines for all land uses. To protect the City residents from excessive noise, the Noise Element contains implementing policies related to the project. Policies S-1 through S-11 in the Noise Element establish guidelines related to City land use planning and site design, as well as guidelines towards noise generating uses within the City. The policies are established to ensure noise sensitive land uses are not significantly impacted by uses that may generate noise. According to the Noise Element, noise sensitive areas include the following land uses: residential developments, schools, hospitals, rest homes, long-term medical care facilities, and churches.

The Noise Element specifies the maximum exterior and interior noise levels for noise sensitive developments in Policies S-1, S-2, S-3. To minimize noise sources, such as commercial and industrial land uses, as well as major roadways, the Noise Element establishes policies that dictate acceptable noise levels at different land uses. This is established in Policies S-6, S-7, S-8, S-10, and S-11. Policies S-4, S-5, requires that the City enforce State and local noise standards, such as enforcing State Noise Insulation Standards and Uniform Building Code, and implementing noise reducing technologies. With the implementation of the policies outlined in the City's Noise Element, sensitive land uses would be less likely to be impacted by noise-generating sources.

Based on the City of Blythe land use compatibility guidelines and Policies S-1 though S-11, the project-specific Noise Study was prepared to satisfy the 65 dBA CNEL exterior noise level criteria in outdoor living areas, and an interior noise standard of 45 dBA CNEL consistent with the State of California Building Code.

4.10.4 Project Impact Analysis

Thresholds of Significance

According to the CEQA Guidelines' Appendix G Environmental Checklist, to determine whether noise impacts are significant environmental effects, the following questions are analyzed and evaluated. Would the project:

a. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

b. Generation of excessive ground-borne vibration or ground-borne noise levels?

Methodology

Noise Fundamentals

Noise is simply defined as "unwanted sound". Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm, or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise sources are adjusted to reflect only those frequencies which are audible to the human ear**. Table 4.10-1, *Typical Noise Levels*,** presents a summary of the typical noise levels and their subjective loudness and effects.

Table 4.10-1 Typical Noise Levels

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

*Source: Edelweiss Sustainable Farms Noise Impact Analysis, Exhibit 2-A, Urban Crossroads, February 2022 (**Appendix L**).*

Range of Noise

Since the range of intensities that the human ear can detect is so large, the logarithmic scale (based on multiples of 10) is frequently used to measure intensity, while the scale for measuring intensity is the decibel scale. Each interval of 10 decibels represents a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud. As shown in **Table 4.10-1** (above), the most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud) with a normal conversation at three feet being roughly 60 dBA. By comparison, jet engine noises equate to 110 dBA at approximately 100 feet, which can cause serious discomfort. Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

Noise Descriptors

Environmental noise descriptors are generally based on averages, rather than instantaneous noise levels. The most commonly used figure is the equivalent sound level (Leq). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). Leq represents a steady state sound level containing the same total energy as a time varying signal over a given sample period and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment. Noise levels lower than peak hour may be disturbing if they occur during evening hours (7:00 p.m. to 10:00 p.m.) and nighttime (sleeping) hours (10:00 p.m. and 7:00 a.m.). To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level was developed. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Blythe relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

Sound Propagation

When sound propagates over a distance, it changes in level and frequency content. The way noise reduces with distance depends on the following factors:

<u>Geometric Spreading</u>

Sound from a stationary point source propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Unlike a point source, a line source's sound levels attenuate at a rate of 3 dB for each doubling of distance.

<u>Ground Absorption</u>

The propagation path of noise from a highway to a receptor is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receptor, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receptor such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source.

Atmospheric Effects

Receptors located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects.

Shielding

A large object or barrier in the path between a noise source and a receptor can substantially attenuate noise levels at the receptor. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an “out of sight, out of mind” effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearby residences.

Reflection

Field studies conducted by the Federal Highway Administration (FHWA) have shown that the reflection from barriers and buildings does not substantially increase noise levels. If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

Noise Control

Noise control is the process of obtaining an acceptable noise environment for an observation point or receptor by controlling the noise source, transmission path, receptor, or all three. This concept is known as the source-path-receptor concept. In general, noise control measures can be applied to these three elements.

Noise Barrier Attenuation

Effective noise barriers can reduce noise levels by 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receptor. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source.

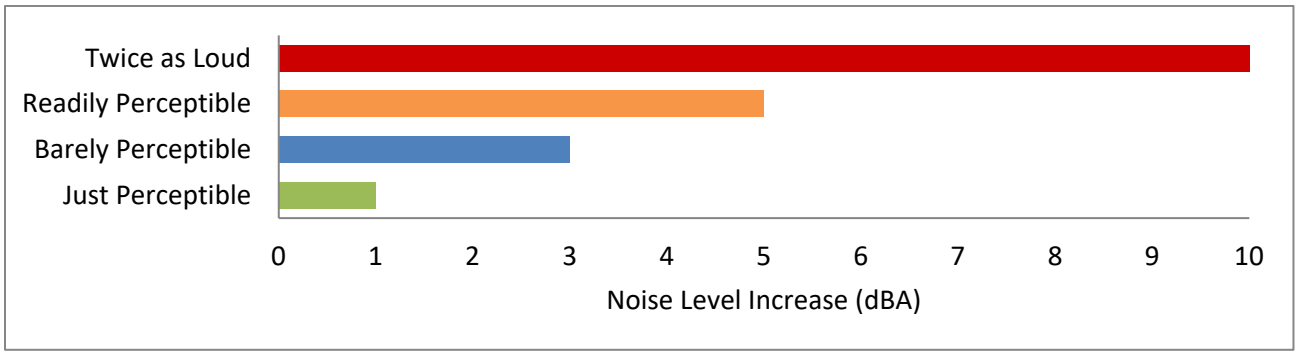
Land Use Compatibility with Noise

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. As ambient noise levels affect the perceived livability of a neighborhood or community, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and local government agencies to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized.

Community Response to Noise

Surveys have shown that about 10 percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately 2 percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain. Despite this variability in behavior on an individual level, the population can be expected to exhibit responses to changes in noise levels as shown in **Table 4.10-2, *Noise Level Increase Perception***. An increase or decrease of 1 dBA cannot be perceived except in carefully controlled laboratory experiments; a change of 3 dBA is considered "barely perceptible;" and changes of 5 dBA are considered "readily perceptible."

Table 4.10-2 Noise Level Increase Perception



*Source: Edelweiss Sustainable Farms Noise Impact Analysis, Exhibit 2-B, Urban Crossroads, February 2022 (**Appendix L**).*

Exposure to High Noise Levels

The Occupational Safety and Health Administration (OSHA) sets legal limits on noise exposure in the workplace. The permissible exposure limit (PEL) for a worker over an eight-hour day is 90 dBA. The OSHA standard uses a 5-dBA exchange rate. This means that when the noise level is increased by 5-dBA, the amount of time a person can be exposed to a certain noise level to receive the same dose is cut in half. The National Institute for Occupational Safety and Health (NIOSH) has recommended that all worker exposures to noise should be controlled below a level equivalent to 85 dBA for eight hours to minimize occupational noise induced hearing loss. NIOSH also recommends a 3-dBA exchange rate so that every increase by 3-dBA doubles the amount of the noise and halves the recommended amount of exposure time.

Further, periodic exposure to high noise levels in short duration, such as construction, is typically considered an annoyance and not impactful to human health. It would take several years of exposure to high noise levels to result in hearing impairment.

Vibration

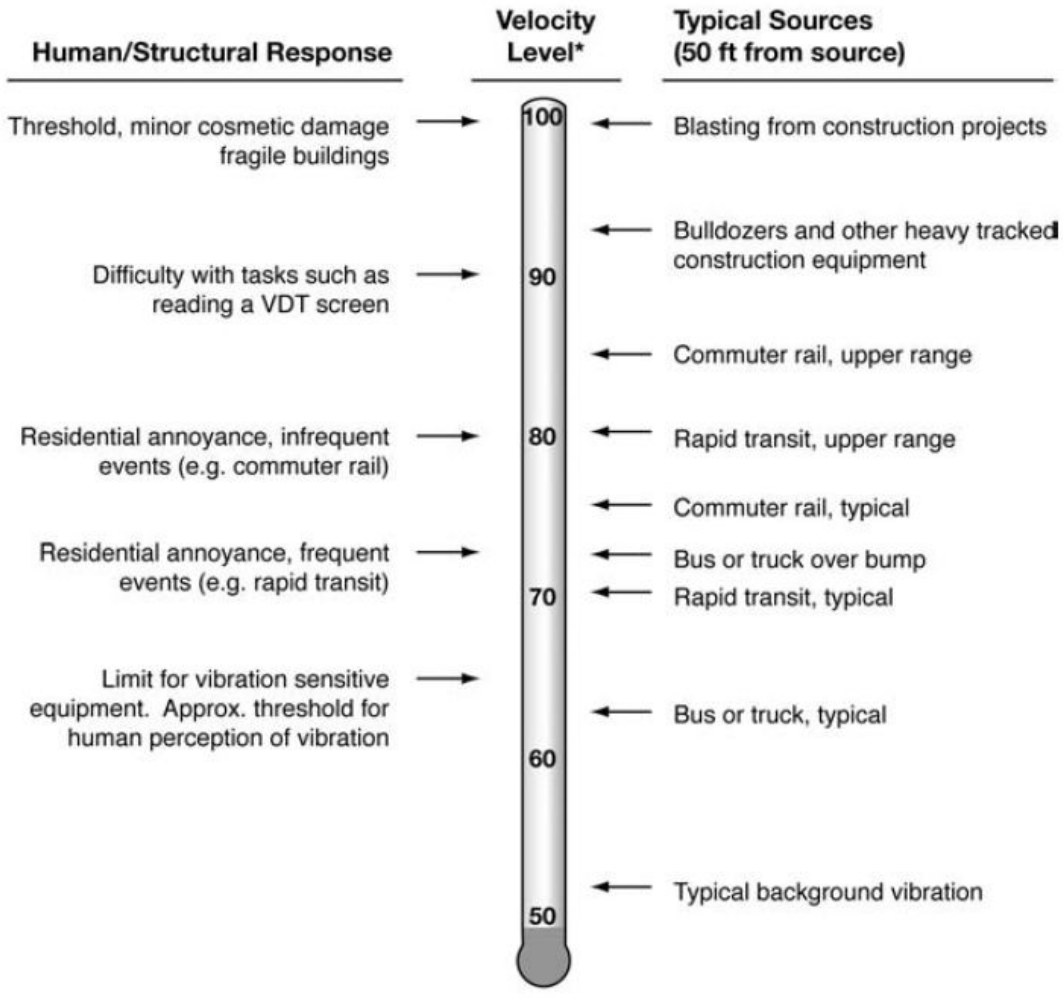
Per the Federal Transit Administration's (FTA) *Transit Noise Impact and Vibration Assessment*, vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

There are several different methods that are used to quantify vibration. The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the

vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB. Ground-borne vibration is normally perceptible to humans at approximately 65 VdB. For most people, a vibration-velocity level of 75 VdB is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB (0.4 PPV in/sec), which is the general threshold where minor damage can occur in fragile buildings. **Table 4.10-3, *Typical Levels of Ground-Borne Vibration***, shows common vibration sources and the human and structural response to ground-borne vibration.

Table 4.10-3 Typical Levels of Ground-Borne Vibration



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: Federal Transit Administration (FTA) Transit Noise Impact and Vibration Assessment.

Noise Impact Analysis

A project-specific Noise Impact Analysis (referred to as "Noise Study" herein), provided by Urban Crossroads, Inc. in February 2022, was conducted to determine the noise exposure generated by project-related construction and operational activities and determine whether noise mitigation is necessary for the proposed project. The Noise Study analyzed project noise impacts to construction noise, off-site traffic noise, and operational noise.

To assess construction noise associated with the proposed project, Urban Crossroads analyzed noise generated by the following activities: demolition, site preparation, grading, building construction, paving, and architectural coating.

To assess the off-site transportation CNEL noise level impacts associated with development of the proposed project, noise contours were developed based on the project-specific *Traffic Study*, also prepared by Urban Crossroads, Inc. (**Appendix M.1**). Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway. Noise contours were developed for the following traffic scenarios:

- Existing: This scenario refers to the 2021 noise conditions, without the development of the project. The Existing scenario serves as the baseline for analysis.
- Existing Plus Project: The Existing Plus Project scenario analyzes the existing noise environment with project operation. However, this scenario will not actually occur since the project would not be fully constructed and operational in 2021 (when the existing noise measurements were taken).
- Cumulative Year (2040): This scenario refers to the future General Plan buildout conditions at Year 2040 without the proposed project. This scenario represents buildout of the General Plan land use and includes all cumulative projects identified in the project-specific Traffic Study.
- Cumulative Year with Project Conditions (2040+P): This scenario refers to the future General Plan buildout conditions at Year 2040 with the proposed project. This scenario represents buildout of the General Plan land use and includes all cumulative projects identified in the project-specific Traffic Study.

To assess operational noise impacts related to the post-construction activities, the Noise Study modeled the potential stationary-source operational noise impacts at the nearest receiver locations. Project activities will occur inside the buildings, however, roof-top air conditioning units, ventilation fans, and trash enclosure activities will likely be heard outside of the buildings due to their locations. Therefore, reference noise measurements were collected by Urban Crossroads and analyzed. See discussion a), below, for further discussion.

Significance Criteria

The Noise Study utilized various resources to determine significance criteria for project-related construction and operational activities.

Noise-Sensitive Receivers

Per the project-specific Noise Study, noise level increases resulting from the project were evaluated at the closest sensitive receiver locations. Under the CEQA Guidelines, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes that there is no single noise increase that renders the noise impact significant. There is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily due to the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is to compare it to the existing environment to which one has adapted – the so-called "ambient" environment.

Substantial Permanent or Temporary Noise Level Increases

In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal Interagency Committee on Noise (FICON) developed guidance to be used for the assessment of the project-generated increases in noise levels that consider the ambient noise level. These recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as CNEL and Leq.

For this noise analysis, FICON identifies a readily perceptible 5 dBA or greater project-related noise level increase as a significant impact when the noise criteria for a given land use is exceeded. Per FICON, in areas where the "without project" noise levels range from 60 to 65 dBA, a 3 dBA barely perceptible noise level increase appears to be appropriate for most people. When the "without project" noise level increase already exceeds 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance. **Table 4.10-4** provides a summary of the potential noise impact significance criteria, based on guidance from FICON.

Table 4.10-4 Significance of Noise Impacts at Noise-Sensitive Receivers

Without Project Noise Level	Potential Significant Impact
< 60 dBA	5 dBA or more
60 - 65 dBA	3 dBA or more
> 65 dBA	1.5 dBA or more

Source: Federal Interagency Committee on Noise (FICON), 1992.

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or readily perceptible, 3 dBA or barely perceptible, and 1.5 dBA depending on the underlying without project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration and Caltrans.

Construction Noise Level Compliance Threshold

To evaluate whether the project will generate potentially significant temporary construction noise levels at off-site sensitive receiver locations, a construction-related noise level threshold is adopted from the Federal Transit Administration (FTA) Transit Noise and Vibration Impact Assessment Manual. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA Leq as a reasonable threshold for noise sensitive residential land use.

Construction Vibration Standards

The project-specific Noise Study analyzed project generated groundborne vibration and groundborne noise in order to determine whether impacts would be significant. The ground vibration levels associated with various types of construction equipment are summarized in **Table 4.10-5, *Vibration Source Levels for Construction Equipmen*t**.

Table 4.10-5 Vibration Source Levels for Construction Equipment

Equipment	PPV (in/sec) at 25 feet
Small Bulldozer	0.003
Jackhammer	0.035
Loaded Truck	0.076
Large Bulldozer	0.089

Source: Edelweiss Sustainable Farms Noise Impact Analysis, Table 6-6, Urban Crossroads, February 2022 (Appendix L).

The City of Blythe does not provide construction vibration level standards; therefore, the Noise Study utilized the Caltrans *Transportation and Construction Vibration Guidance Manual* for vibration damage and annoyance criteria to assess the potential temporary construction-related impacts at adjacent receiver locations.

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. Therefore, the construction vibration damage potential criteria should consider the building conditions. The table below describes the maximum acceptable transient and continuous vibration building damage potential levels by structure type and condition. Most of the noise sensitive buildings near the project site can best be described as older residential structures or commercial building with a maximum acceptable transient building damage vibration threshold of 0.3 PPV (in/sec).

Table 4.10-6 Building Damage Vibration Criteria

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Extremely fragile historic buildings	0.12	0.08
Fragile Buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Source: Edelweiss Sustainable Farms Noise Impact Analysis, Table 3-1, Urban Crossroads, February 2022 (Appendix L).

Significance Criteria Summary

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. The table below summarizes the significance criteria discussed above.

Table 4.10-7 Significance Criteria Summary

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic Noise[1]	Noise-Sensitive	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
Operational	Noise-Sensitive	Exterior Noise Level Standards[2]	65 dBA	
		if ambient is > 65 dBA L_{eq}	≥ 1.5 dBA L_{eq} Project increase	
Construction	Noise-Sensitive	Noise Level Threshold[3]	80 dBA L_{eq}	n/a
		Vibration Threshold[4]	0.3 PPV (in/sec)	

Sources: 1. FICON, 1992.
2. City of Blythe General Plan Noise Element.
3. FTA 2018.
4. Caltrans 2013.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "n/a" = No nighttime construction activity is permitted, so no nighttime construction noise level limits are identified; "PPV" = Peak Particle Velocity

Existing Noise Level Measurements

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations near the project (**Exhibit 4.10-1**, ***Noise Measurement Locations***). To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, November 10th, 2021.

Measurement Procedure and Criteria

In order to describe the existing noise environment, Urban Crossroads measured hourly noise levels during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013.

Noise Measurement Locations

Receivers represent the location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby sensitive receiver locations allows for a comparison of the before and after project noise levels and is necessary to assess potential noise impacts due to the project's contribution to the ambient noise.

Sensitive Receiver Locations

For the purpose of the project-specific Noise Study, four receiver locations in the vicinity of the project site were identified. The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the project site. All distances were measured from the project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the project site. Other sensitive land uses in the project study area that are located at greater distances than those identified in the noise study will experience lower noise levels due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location. **Exhibit 4.10-2** displays the receiver locations (indicated as R1 through R4) used in the Noise Study and explained below.

R1: Location R1 represents existing noise sensitive residence at 301 San Jacinto Way, approximately 1,395 feet northeast of the project site. Receiver R1 is placed at the private outdoor living areas (backyards) facing the project site. A 24-hour noise

measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive Red Roof Inn Blythe at 850 West Hobsonway, approximately 1,529 feet east of the project site. Since there are no private outdoor living areas (backyards) facing the project site, receiver R2 was placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents existing noise sensitive residence at 1720 West Hobsonway, approximately 46 feet west of the project site. Receiver R3 was placed at the private outdoor living areas (backyards) facing the project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents existing noise sensitive residence at 1926 West Hobsonway, approximately 1,476 feet west of the project site. Receiver R4 was placed at the private outdoor living areas (backyards) facing the project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.



Source: Exhibit 8-A, *Noise Study*, Urban Crossroads, Inc.

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

NOISE SOURCE AND RECEIVER LOCATIONS
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.10-2

Existing Noise Measurement Results

As previously discussed in Section 4.10.2, *Existing Conditions*, of this Noise Section, the noise measurements presented in the project-specific Noise Study focus on the average or equivalent sound levels (Leq). **Table 4.10-8, *24-Hour Ambient Noise Level Measurements***, identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location shown in **Exhibit 4.10-1, *Noise Measurement Locations***. **Table 4.10-8** provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions.

The background ambient noise levels in the project study area are dominated by the transportation-related noise associated with surface streets in addition to background industrial land use activities. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations.

Table 4.10-8 24-Hour Ambient Noise Level Measurements

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]		CNEL (dBA)
		Daytime	Nighttime	
L1	Located north of the project site near single-family residence at 301 San Jacinto Way.	47.5	49.8	68.0
L2	Located east of the project site near Red Roof Inn Blythe at 850 West Hobsonway.	65.1	59.8	68.0
L3	Located west of the project site near single-family residence at 1720 West Hobsonway.	51.1	53.7	60.0
L4	Located west of the project site near single-family residence at 1926 West Hobsonway.	62.3	60.4	67.5

[1] See Exhibit 4.10-2 for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2 of the Noise Analysis.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Construction Noise Standards

The City's General Plan and Municipal Code do not establish numeric maximum acceptable construction source noise levels at potentially affected receivers. Therefore, the FTA noise level threshold of 85 dBA L_{eq} is used as a reasonable threshold to evaluate the potential project-related construction noise level impacts at the nearby sensitive receiver locations.

Construction Activities

Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators. Noise generated by the construction equipment operating simultaneously can reach high levels when combined. The number and mix of construction equipment are expected to occur in the following stages: Demolition, Site Preparation, Grading, Building Construction, Paving, and Architectural Coating.

Construction Reference Noise Levels

The construction noise analysis was prepared using reference noise level measurements published as part of the Federal Highway Administration (FHWA) Road Construction Noise Model (RCNM). The RCNM database provides a comprehensive source of reference construction noise levels. The table below provides a summary of the RCNM construction noise level measurements expressed in hourly average dBA Leq using the estimated usage factors to describe the typical construction activities for each stage of project construction.

Table 4.10-9 Typical Construction Reference Noise Levels

Construction Stage	Reference Construction Equipment	Reference Noise Level @ 50 ft. (dBA Leq)	Composite Reference Noise Level (dBA Leq)	Reference Power Level (dBA Lw)
Demolition	Front End Loader	75.0	83.8	115.4
	All Other Equip	82.0		
	Excavator	77.0		
Site Preparation	Dozer	78.0	81.0	112.7
	Front End Loader	75.0		
	Front End Loader	75.0		
Grading	Dozer	78.0	81.8	113.5
	Excavator	77.0		
	Compactor (Ground)	76.0		
Building Construction	Crane	73.0	81.1	112.8
	Tractor	80.0		
	Welder/Torch	70.0		
Paving	Paver	74.0	83.1	114.7
	All Other Equip	82.0		
	Roller	73.0		
Architectural Coating	Crane	73.0	77.4	109.1
	Compressor (air)	74.0		
	Generator (<25kVA)	70.0		

The construction reference noise level measurements represent a list of typical construction activity noise levels. Noise levels generated by heavy construction equipment can range from approximately 68 dBA to more than 80 dBA when measured at 50 feet. However, these noise levels diminish with distance from the construction site at a rate of 6 dBA per doubling of distance. For example, a noise level of 80 dBA measured at 50 feet from the noise source to the receiver would be reduced to 74 dBA at 100 feet from the source to the receiver and would be further reduced to 68 dBA at 200 feet from the source to the receiver.

Exhibit 4.10-2 illustrates the noise sensitive receivers and their relation to the project site.

Future Traffic Noise Environment

The following models were used in the project-specific Noise Study to estimate and analyze the future traffic noise environment. Methods and procedures are consistent with Office of Planning and Research (OPR) land use/noise compatibility standards, all transportation related noise levels are presented in terms of the 24-hour CNEL's.

Federal Highway Administration Traffic Noise Prediction Model

The estimated roadway noise impacts from vehicular traffic were calculated using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model-FHWA-RD-77-108. Details of the modeling procedures are provided in **Appendix L**.

Traffic Noise Prediction Model Inputs

Consistent with the project-specific Traffic Study, also prepared by Urban Crossroads, Inc., the Noise Study provides off-site roadway segment analysis for the models described above under Section 6.2 (*Off-Site Traffic Noise Prediction Model Inputs*) of the Noise Study.

Off-Site

Table 4.10-10, *Off-Site Roadway Parameters,* identifies the 12 study area roadway segments, the distance from the centerline to the adjacent land use based on the functional roadway classifications per the City of Blythe General Plan Circulation Element, and the posted vehicle speeds. The average daily traffic (ADT) volumes used for this study are presented on **Table 4.10-11, *Average Daily Traffic Volumes***. **Table 4.10-12** provides the time of day (daytime, evening, and nighttime) vehicle splits used for this analysis. The vehicle mix provides the hourly distribution percentages of automobile, medium trucks, and heavy trucks for input into the FHWA noise prediction model.

Table 4.10-10 Off-Site Roadway Parameters

ID	Roadway	Segment	Receiving Land Use	Classification	Distance From Centerline To Nearest Adjacent Land Use (Feet)[2]	Vehicle Speed (mph)[3]
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	Arterial	40	45
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	Arterial	40	45
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	Arterial	40	45
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	Arterial	40	45
5	Hobsonway	w/o Lovekin Blvd.	C-G	Arterial	55	45
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	Arterial	55	45
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	Local	30	45
8	Neighbours Blvd.	s/o Hobsonway	C-G	Local	30	45
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	Local	30	45
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	Local	30	45
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	Arterial	55	45
12	Lovekin Blvd.	s/o Hobsonway	C-G	Arterial	55	45

Note: I-S=service industrial, A & AG = agricultural; C-G = general commercial, RV-VLRD = very low density residential, P-QP = public quasi-public, LI = light industrial, R-M = medium density residential, EDR = estate density residential.

1. Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.
2. City of Blythe and County of Riverside General Plan Land Use Elements
3. Based upon the right-of-way distances for each roadway classification provided in the General Plan Circulation Element

Table 4.10-11 Average Daily Traffic Volumes

ID	Roadway	Segment	Average Daily Traffic			
			Existing		Opening Year	
			Without Project	With Project	Without Project	With Project
1	Hobsonway	w/o Neighbours Blvd.	2,592	3,240	3,804	3,804
2	Hobsonway	w/o Defrain Blvd.	5,808	7,979	7,572	8,712
3	Hobsonway	e/o Defrain Blvd.	5,628	5,567	7,584	8,838
4	Hobsonway	e/o Project Driveway	5,628	7,666	7,596	8,622
5	Hobsonway	w/o Lovekin Blvd.	10,056	12,557	11,976	13,002
6	Hobsonway	e/o Lovekin Blvd.	12,996	15,637	15,912	16,368
7	Neighbours Blvd.	n/o Hobsonway	312	344	1,080	1,080
8	Neighbours Blvd.	s/o Hobsonway	2,136	3,572	4,224	5,364
9	Neighbours Blvd.	s/o I-10 WB Ramp	2,136	3,573	4,596	5,736
10	Neighbours Blvd.	s/o I-10 EB Ramp	2,712	3,661	10,632	11,259
11	Lovekin Blvd.	n/o Hobsonway	6,816	9,000	9,360	9,588
12	Lovekin Blvd.	s/o Hobsonway	13,284	15,699	15,768	16,110

Table 4.10-12 Time of Day Vehicle Splits

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] Source: Typical Southern California vehicle mix.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Project Impacts

a. Generation of substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies

The on-site project-related noise sources are expected to include roof-top air conditioning units, ventilation fans, and trash enclosure activity. Project-generated noise during short-term construction activities, and long-term operational activities were evaluated in the project-specific Noise Study (**Appendix L**). The analysis of the report findings is discussed below.

Construction

The project-specific Noise Study analyzed the potential impacts resulting from the short-term construction activities associated with the development of the project. Noise generated by the project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment are expected to occur in the following stages: demolition, site preparation, grading, building construction, paving, and architectural coating.

Noise levels generated by heavy construction equipment can range from approximately 68 dBA to in excess of 80 dBA when measured at 50 feet. Hard site conditions are used in the construction noise analysis which result in noise levels that attenuate (or decrease) at a rate of 6 dBA for each doubling of distance from a point source (i.e., construction equipment). As described above, if project-related construction activities create noise levels which exceed the 80 dBA Leq at the nearby sensitive receiver locations, the project will have significant construction noise impacts. Receiver locations are indicated in **Exhibit 4.10-2, *Noise Source and Receiver Locations***.

Based on the stages of construction, the noise impacts associated with the proposed project are expected to create temporarily high noise levels at the nearby receiver locations. The construction noise levels by phase and stage at the nearby noise-sensitive receiver locations are shown in **Table 4.10-13.**

Table 4.10-13 Construction Equipment Noise Level Summary

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})							
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]	Threshold Exceeded?[3]
R1	52.8	50.0	50.8	50.1	52.1	46.4	52.9	No
R2	52.2	49.4	50.2	49.5	51.5	45.8	52.2	No
R3	64.5	61.7	62.5	61.8	63.8	58.1	64.5	No
R4	52.3	49.5	50.3	49.6	51.6	45.9	52.3	No

[1] Noise receiver locations are shown on Exhibit 10-A in the Noise Study.
[2] Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1 in the Noise Study.
[3] Threshold is 80 dBA Leq as established by the FTA.

As shown in the table, onsite construction noise will not exceed the 80 dBA threshold established by the FTA. The highest offsite noise level during construction of the project is 64.5 dBA at receiver location R3. Therefore, impacts associated with construction noise will be less than significant.

Additional project improvements include the project's connection to the City of Blythe's existing sewer lines, located along Hobsonway. Approximately 1,200 linear feet of 8-inch PVC sewer pipes will be placed underground to connect to existing City manhole #192. Undergrounding of the proposed sewer lines will occur along Hobsonway in areas adjacent to the project boundary, as well as offsite areas east of the project site, along the existing right-of-way. Construction activities associated with the line extension in the right of way will be limited to trenching, the laying of sewer lines, covering and repaving. These activities are typical of public works in the right of way, and will be short-term and separated from existing development by distance, walls, and/or fences.

The closest residential structure to the Hobsonway right-of-way, where excavation would occur, is located west of the project site at location R3. According to the Department of Transportation, Federal Highway Administration, at 50 feet dBA, an excavator can reach maximum noise levels of 81 dBA, which exceeds the 80 dBA threshold established by the FTA by 1 dBA. However, the sensitive noise receiver is located approximately 700 feet from the closest proposed excavation area. Since sound levels attenuate at a rate of 6 dB for each doubling of distance from a line source, the noise generated by the excavator would be reduced to below the threshold of 80 dBA. The daytime work limitations and the physical separation between the proposed improvements and existing development will reduce potential construction noise to less than significant levels.

Off-Site Traffic Noise

Traffic generated by the operation of the proposed project will influence the traffic noise levels in surrounding off-site areas. To quantify the traffic noise increases on the surrounding off-site areas, Urban Crossroads calculated the changes in traffic noise levels on 12 roadway segments surrounding the project site based on the change in the average daily traffic (ADT) volumes, which was provided in the Traffic Study (**Appendix M.1**) and determined whether the resulting noise levels were

consistent with **Table 4.10-7**. Consistent with the Traffic Study by Urban Crossroads, the off-site traffic noise analysis includes the following traffic scenarios:

- Existing Conditions
- Existing Plus Project
- Cumulative Year (2040)
- Cumulative Year with Project Conditions (2040+P)

Noise Contours

To assess the off-site transportation CNEL noise level impacts associated with the development of the proposed project, noise contours were developed based on the project-specific Traffic Study. Noise contours represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary sources within the project study area.

Existing Without Project Traffic Noise Contours

The table below shows existing conditions (without the project) on the 12 roadway segments. The noise levels at the nearest receiving land use ranges from 54.8 dBA CNEL at segment 7 (Neighbors Boulevard north of Hobsonway) to 67.2 at segment 12 (Lovekin Boulevard south of Hobsonway).

Table 4.10-14 Existing Without Project Noise Contours

ID	Roadway	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	62.1	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	65.6	RW	RW	94
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	RW	RW	92
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	65.5	RW	RW	92
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.0	RW	RW	138
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.1	RW	RW	164
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	54.8	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	63.2	RW	RW	RW
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	63.2	RW	RW	RW
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	64.2	RW	RW	RW
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	64.3	RW	RW	RW
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.2	RW	RW	167

1. Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses. Where I-S = Service Industrial; A = Agriculture; C-G = General Commercial; R-R = Rural Residential; R-M = Medium Density Residential; P-QP = Public/Quasi Public; Riverside County General Plan – CT = Commercial Tourist; LI = Light Industrial; RC-EDR = Estate Density Residential; AG = Agriculture; RV-VLDR = Very Low Density Residential.
2. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Existing With Project Traffic Noise Contours

The table below shows existing conditions (with the project) on the 12 roadway segments. This scenario is considered hypothetical because it adds the project's noise projections to current conditions, even though the project will not be constructed until future years (which will have different baseline conditions due to background growth). The noise levels at the nearest receiving land use ranges from 55.2 dBA CNEL at segment 7 (Neighbors Boulevard north of Hobsonway) to 67.9 at segment 5 (Hobsonway east of Lovekin Boulevard) and segment 12 (Lovekin Boulevard south of Hobsonway).

Table 4.10-15 Existing With Project Noise Contours

ID	Roadway	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.1	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	67.0	RW	RW	117
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	RW	RW	92
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	RW	RW	114
5	Hobsonway	w/o Lovekin Blvd.	C-G	67.0	RW	RW	160
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.9	RW	RW	186
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	55.2	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	65.4	RW	RW	69
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	65.4	RW	RW	69
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	65.5	RW	RW	70
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.5	RW	RW	129
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.9	RW	RW	186

1. Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
2. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

Existing With Project Noise Level Increases

An analysis of existing traffic noise levels plus traffic noise generated by the proposed project has been included to fully analyze all the existing traffic scenarios identified in the Edelweiss Sustainable Farms Traffic Study. As noted above, this condition is considered hypothetical because the project will not be fully developed and occupied under Existing (2021) conditions. Table 4.10-16 below shows the Existing without project conditions CNEL noise levels. The Existing without project exterior noise levels is expected to range from 54.8 to 67.2 dBA CNEL, without accounting for any noise attenuation

features such as noise barriers or topography. The table also shows that the Existing with project conditions will range from 55.2 to 67.9 dBA CNEL, and that the project off-site traffic noise level impacts will range from 0.0 to 2.2 dBA CNEL. Based on the significance criteria for off-site traffic noise, land uses adjacent to the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the project-related traffic.

Table 4.10-16 Comparison of Existing and With Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	62.1	63.1	1.0	Yes	3.0	No
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	65.6	67.0	1.4	Yes	1.5	No
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	65.5	0.0	Yes	1.5	No
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	65.5	66.8	1.3	Yes	1.5	No
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.0	67.0	1.0	No	n/a	No
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.1	67.9	0.8	No	n/a	No
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	54.8	55.2	0.4	Yes	5.0	No
8	Neighbours Blvd.	s/o Hobsonway	C-G	63.2	65.4	2.2	No	n/a	No
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	63.2	65.4	2.2	No	n/a	No
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	64.2	65.5	1.3	Yes	3.0	No
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	64.3	65.5	1.2	Yes	3.0	No
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.2	67.9	0.7	No	n/a	No

1. Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
2. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
3. Does the project create an incremental noise level increase exceeding the significance criteria?

Cumulative Year (2040) With Project Traffic Noise Level Increases

The table below indicates that the buildout of the Blythe General Plan without and with project conditions CNEL noise levels. The General Plan buildout traffic noise levels without the project was calculated by Urban Crossroads using a computer program that replicates the FHWA Traffic Noise Prediction Model- FHWA-RD-77-108. The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions, and the

percentage of total ADT which flows each hour throughout a 24-hour period. See **Tables 4.10-10** through **4.10-12**, above.

Based on Urban Crossroad's calculations General Plan buildout exterior noise levels (without the project) is expected to range from 60.2 to 70.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. The City buildout with project conditions will range from 60.2 to 70.4 dBA CNEL. The off-site traffic noise level increases will range from 0.0 to 1.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in **Table 4.10-7**, land uses adjacent to the study area roadway segments would experience less than significant noise level increases on receiving land uses due to the project-related traffic.

Table 4.10-17 Cumulative Year With Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Noise Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.8	63.8	0.0	Yes	3.0	No
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	66.7	67.4	0.7	Yes	1.5	No
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	66.8	67.4	0.6	Yes	1.5	No
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	67.3	0.5	Yes	1.5	No
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.8	67.1	0.3	No	n/a	No
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	68.0	68.1	0.1	No	n/a	No
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	60.2	60.2	0.0	Yes	3.0	No
8	Neighbours Blvd.	s/o Hobsonway	C-G	66.1	67.2	1.1	No	n/a	No
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	66.5	67.4	0.9	No	n/a	No
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	70.1	70.4	0.3	Yes	1.5	No
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.7	65.8	0.1	Yes	1.5	No
12	Lovekin Blvd.	s/o Hobsonway	C-G	68.0	68.1	0.1	No	n/a	No

1. Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
2. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
3. Does the project create an incremental noise level increase exceeding the significance criteria?

Operational Noise Impacts

Reference Noise Levels

The Noise Study analyzed the potential project stationary-source operational noise impacts at the nearest receiver locations. To present the potential worst-case noise conditions, this analysis assumes the project would be operational 24 hours per day, seven days per week. Consistent with similar cannabis cultivation facilities, the project business operations would primarily be conducted within the enclosed buildings. The on-site project-related noise sources are expected to include: roof-top air conditioning units, ventilation fans, and trash enclosure activity. The operational noise sources are described below.

Trash Enclosure Activity

The trash enclosure reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013.

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the project site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA Leq for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

Roof-Top Units

The primary noise sources on-site would be the heating, ventilation, and air conditioning (HVAC) for the cultivation and office spaces. For modeling purposes, each building is assumed to have a small 2-foot-high parapet on the roof. Each building is anticipated to have an array of HVAC units equivalent to approximately 652 tons per building, estimated at two 1-ton units, three 1.5-ton units, three 2.5-ton units, one 3-ton unit, one 7.5-ton unit, one 8.5-ton unit, one 10-ton unit, and twenty-four 25-ton units. Each roof would also have six-teen ½ horsepower and 2 ¼ horsepower fans. Building one would have one additional 8.5-ton HVAC unit and one additional ¼ horsepower fan. At this time the specific make and model of the equipment has not been selected, thus for noise assessment purposes the units were modeled based on available data for commercial rooftop packaged HVAC units and ventilation fans as sample units.

The exhibit below illustrates the project's operational noise source locations.



Source: Exhibit 9-A, *Noise Study*, Urban Crossroads, Inc.

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

OPERATIONAL NOISE SOURCE LOCATIONS
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.10-3

To estimate the project operational noise impacts, the reference noise level measurements were collected and used in this analysis of project operational noise. **Table 4.10-18** shows the reference noise levels. The projected noise levels in the table assumes the worst-case noise environment with the noise sources operating continuously. However, it is likely that these sources of noise activity will vary throughout the day.

Table 4.10-18 Operation Reference Noise Levels

Noise Source[1]	Noise Source Height (ft)	Source Type	Min./Hour[2]			Reference Noise Level (dBA Leq) @ 50 ft	Sound Power Level (dBA)[3]
			Day	Evening	Night		
Trash Enclosure Activity[4]	5	Point	10	10	10	48.0	89.0
25-Ton AC	3	Point	60	60	60	62.4	94.0
7.5 to 10-Ton AC	3	Point	60	60	60	56.4	88.0
1 to 3-Ton	3	Point	60	60	60	42.4	74.0
Ventilation Fan ½ HP	1	Point	60	60	60	34.6	66.2
Ventilation Fan ¼ HP	1	Point	60	60	60	26.6	58.2

1. As measured by Urban Crossroads, Inc.
2. Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the project site. "Daytime" = 7:00 am – 7:00 pm; "Evening" = 7:00 pm – 10:00 pm; "Nighttime" = 10:00 pm – 7:00 am.
3. Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.
4. Activities related to trash enclosure use is not expected during nighttime hours; however, it is included for analysis.

Using the reference noise levels, the operational source noise levels that are expected to be generated at the project site was calculated. With this, the noise source noise levels were calculated at each of the sensitive receiver locations. The noise levels at the off-site receiver locations over a 24-hour period are expected to range from 46.7 to 57.7 dBA CNEL, as indicated in the table below.

Table 4.10-19 24-Hour Project Operational Noise Levels

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA CNEL)			
	R1	R2	R3	R4
Trash Enclosure Activity	20.6	19.3	28.1	19.5
Roof-Top Air Conditioning Units	46.7	47.1	57.7	46.7
Ventilation Fans	17.1	16.6	27.5	16.8
Total (All Noise Sources)	46.7	47.1	57.7	46.7

Per the City of Blythe General Plan Noise Element Policy S-1, project operational noise levels at the nearest sensitive receiver locations cannot exceed 65 dBA CNEL. To demonstrate compliance with local noise regulations, the project-only operational noise levels were evaluated against exterior noise level thresholds based on the City of Blythe exterior noise level standards at nearby noise-sensitive receiver locations. This is indicated in the table below. Per the table, the operational noise levels associated with the project will satisfy the City of Blythe 24-hour CNEL exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered less than significant at the nearby noise-sensitive receiver locations.

Table 4.10-20 Operational Noise Level Compliance

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]	Noise Level Standards (dBA CNEL)[3]	Noise Level Standards Exceeded?[4]
R1	46.7	65	No
R2	47.1	65	No
R3	57.7	65	No
R4	46.7	65	No

1. Receiver locations are identified in Exhibit 4.10-2
2. Proposed project operational noise levels as shown on Table 4.10-19 above
3. City of Blythe General Plan, Noise Element
4. Do the estimated project operational noise source activities exceed the noise level standards?

Project Operational Noise Level Increases

To describe the project operational noise level increases, the project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. Instead, they must be logarithmically added using the following base equation:

$$SPLTotal = 10log10[10SPL1/10 + 10SPL2/10 + \ldots 10SPLn/10]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the project-operational and existing ambient noise levels. The difference between the combined project and ambient noise levels describes the project noise level increases to the existing ambient noise environment. This is indicated in the table below.

Table 4.10-21 24-Hour (CNEL) Operational Noise Level Increases

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]	Measurement Location[3]	Reference Ambient Noise Levels	Combined Project and Ambient	Project Increase	Increase Criteria	Increase Criteria Exceeded?[4]
R1	46.7	L1	49.8	51.5	1.7	5.0	No
R2	47.1	L2	68.0	68.0	0.0	1.5	No
R3	57.7	L3	60.0	62.0	2.0	5.0	No
R4	46.7	L4	62.9	63.0	0.1	3.0	No

1. Receiver locations are identified in Exhibit 4.10-2
2. Total project nighttime operational noise levels as shown on table 10-3
3. Reference noise level measurement locations as shown on exhibit 4.10-1.
4. Observed nighttime ambient noise levels as shown on Table 4.10-8.
5. Represents the combined ambient conditions plus the project activities.
6. The noise level increase expected with the addition of the proposed project activities.

Table 4.10-21, above, shows that the project will generate operational noise level increases ranging from 0.0 to 2.0 dBA at the nearest receiver locations. Project-related operational noise level increases

will satisfy the operational noise level increase significance criteria. Therefore, the incremental project operational noise level increase is considered less than significant at all receiver locations.

Conclusion

Overall, construction activities associated with the proposed project will not create significant noise impacts to the surrounding sensitive receivers. Additionally, off-site traffic noise generated from the project will not result in noise level increases that are significant. Finally, operation of the proposed project will not result in noise levels that are significant. The proposed project will not exceed the thresholds established in **Table 4.10-7**. Impacts will be less than significant.

b. Generation of excessive groundborne vibration or groundborne noise levels

Construction activities can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from project construction activities would cause only intermittent, localized intrusion. Ground vibration levels associated with various types of construction equipment are summarized in **Table 4.10-5.**

Since the City of Blythe does not have established standards regarding construction vibration, the Noise Study relied on the Caltrans *Transportation and Construction Vibration Guidance Manual* to determine vibration damage and annoyance criteria to assess the potential temporary construction-related impacts at adjacent receiver locations. For the purposes of the vibration analysis, the perception threshold of 0.30 in/sec was used to assess the potential impacts due to project construction at nearby sensitive receiver locations.

At distances ranging from 46 to 1,529 feet from the project construction activity, the transient construction vibration velocity levels are estimated to range from 0.000 to 0.036 PPV in/sec. Based on maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec) for older residential structures or commercial buildings, the typical project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations. In addition, the construction vibration levels in the table below shows that the impacts will satisfy the distinctly perceptible maximum the continuous vibration human annoyance threshold of 0.3. PPV (in/sec) at all the nearest receiver locations. Therefore, the vibration impacts due to the typical project construction activities are considered less than significant. Moreover, the impacts at the site of the closest sensitive receiver are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the project site perimeter.

Table 4.10-22 Construction Equipment Vibration Levels

Receiver[1]	Distance to Const. Activity (Feet)	Receiver Levels (in/sec) PPV[2]					Threshold PPV (in/sec)[4]	Threshold Exceeded?[5]
		Small Bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Peak Vibration		
R1	1,395	0.000	0.000	0.000	0.000	0.000	0.30	No
R2	1,529	0.000	0.000	0.000	0.000	0.000	0.30	No
R3	46	0.000	0.014	0.030	0.036	0.036	0.30	No
R4	1,476	0.000	0.000	0.000	0.000	0.000	0.30	No

[1] Receiver locations are shown on Exhibit 10-A in the Noise Study.
[2] Distance from receiver location to project construction boundary.
[3] Based on the Vibration Source levels of Construction Equipment.
[4] Source: FTA 2018.
[5] Does the vibration level exceed the maximum acceptable vibration threshold?

Additional project improvements include the project's connection to the City of Blythe's existing sewer lines, located along Hobsonway. Approximately 1,200 linear feet of 8-inch PVC sewer pipes will be placed underground to connect to existing City manhole #192. Undergrounding of the proposed sewer lines will occur along Hobsonway in areas adjacent to the project boundary, as well as offsite areas east of the project site, along the existing right-of-way. Construction activities associated with the line extension in the right of way will be limited to trenching, the laying of sewer lines, covering and repaving. These activities are typical of public works in the right of way, and will be short-term.

Heavy equipment used for the offsite improvements are not likely to impact surrounding areas since the closest residential structure to the Hobsonway right-of-way, where excavation would occur, is located west of the project site at location R3. However, the sensitive noise receiver is located approximately 700 feet from the closest proposed area where excavation would occur. As indicated in **Table 4.10-22**, above, location R3, at the closest point from the project, would experience jack hammering vibration levels of 0.014 PPV at 46 feet. Therefore, it was concluded that the sensitive receiver would not be impacted since the threshold of 0.30 PPV was not exceeded. The proposed offsite improvement would occur at a distance greater than 46 feet. Therefore, it is likely that receiver R3 would not experience ground-borne vibrations from the trenching activities. Impacts would be less than significant.

4.10.5 Cumulative Impacts

Development within the City of Blythe would result in an increase of traffic throughout the City as well as the operation of future projects in areas that were previously vacant and undeveloped. The geographic context for the cumulative analysis of construction and operational noise levels would be areas immediately surrounding the project site, because construction and operational noise primarily affects areas in the vicinity of the project site. The development of vacant lots and the increase of traffic in Blythe would result in increased noise levels throughout the City and along local roadways. Currently, there are seven projects approved for development in the City of Blythe listed in **Table 4.0-**

1. Six of the seven projects propose cannabis cultivation facilities, similar to the project property. One of the projects proposes a single-family residential community with 130 dwelling units. All other cumulative projects propose the development of cannabis cultivation facilities. Two facilities are proposed west of the project property. However, development of these facilities is not likely to occur during the development of the proposed project. The remaining four cannabis cultivation facilities are located over a mile from the project site and thus would be at a substantial distance such that noise would attenuate and cumulative impacts would not occur.

Noise

Construction

As previously stated, construction of the project would result in an increase in ambient noise levels. The proposed project's construction period would have the potential to overlap with the related cumulative projects' construction processes. However, at distances greater than 100 feet, construction activities would attenuate to approximately 70 dBA Leq. If two projects were under construction at the same time, 100 feet apart, the combined noise level would be less than 75 dBA Leq, which would comply with the FTA 80 dBA Leq threshold used to assess construction impacts. No projects are known within 100 feet of the proposed building site. Therefore, the project would not contribute to a cumulative increase during construction.

Additionally, the cumulative projects would be required to comply with State and local regulations regarding construction noise. Moreover, through the approval process, the City is allowed to request mitigation measures for the projects during construction to reduce impacts to surrounding land uses. The mitigation may include establishing construction hours, requiring staging areas to be located away from sensitive noise receivers, and requiring specific routes for construction traffic. Therefore, impacts would not be cumulatively considerable.

Overall, cumulative impacts from construction would be less than significant and would stop once construction was complete.

Off-Site Transportation Noise

<u>Cumulative Year (2040) With Project Traffic Noise Level Contributions</u>

The table below indicates that the General Plan buildout without and with project conditions CNEL noise levels. The General Plan buildout without project exterior noise levels are expected to range from 60.2 to 70.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. The General Plan buildout with project conditions will range from 60.2 to 70.4 dBA CNEL. The project will generate a noise level increase of up to 1.1 dBA CNEL on the study area roadway segments. Based on the significance criteria, land uses adjacent to the study area roadway segments would experience less than significant noise level increases on receiving land uses due to

the project-related traffic. Therefore, the implementation of the project will have less than significant impacts on surrounding roadway segments.

Table 4.10-23 Cumulative Year With Project Traffic Noise Level Increases

ID	Road	Segment	Receiving Land Use[1]	CNEL at Adjacent Land Use (dBA)[2]			Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition	Limit	Exceeded?
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.8	63.8	0.0	3.0	No
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	66.7	67.4	0.7	1.5	No
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	66.8	67.4	0.6	1.5	No
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	67.3	0.5	1.5	No
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.8	67.1	0.3	n/a	No
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	68.0	68.1	0.1	n/a	No
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	60.2	60.2	0.0	3.0	No
8	Neighbours Blvd.	s/o Hobsonway	C-G	66.1	67.2	1.1	n/a	No
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	66.5	67.4	0.9	n/a	No
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	70.1	70.4	0.3	1.5	No
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.7	65.8	0.1	1.5	No
12	Lovekin Blvd.	s/o Hobsonway	C-G	68.0	68.1	0.1	n/a	No

1. Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
2. The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
3. Does the project create an incremental noise level increase exceeding the significance criteria?

The comparison concluded that off-site traffic noise would be less than significant, and no mitigation is required under cumulative conditions.

Permanent Increases in Ambient Noise Levels

As with construction, because the generation of noise from stationary sources is a localized phenomenon, the proximity of related projects to the proposed project is a key factor in the determination of potential cumulative impacts. Due to the decrease in noise levels with distance and the presence of physical barriers (the structures themselves, parapet walls, etc.), noise from other related projects would not combine with the proposed project to produce a cumulative noise effect during operation.

Additionally, the project's operations and those of the related projects would be subject to the City of Blythe Noise Control Ordinance, which limits the exterior noise levels at adjacent properties. Similarly, any related projects would be required to comply with the City of Blythe noise standards. The project's contribution to operational noise impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

Vibration

The cumulative projects would result in small increase in construction-related ground-borne vibrations. However, due to rapid attenuation characteristics of groundborne vibration, there is no potential for cumulative construction- or operational-period impacts with respect to groundborne vibration beyond 15 feet from the project boundary. Therefore, potential cumulative groundborne vibration impacts with regard to human annoyance or potential for structural damage would be less than significant.

Cumulative impacts are not anticipated to be significant.

4.10.6 Mitigation Measures

No Mitigation Measures are required.

4.10.7 Level of Impact Significance after Mitigation

The project will not have any significant noise impacts.

4.10.8 Resources

1. Edelweiss Sustainable Farms Noise Impact Analysis, Urban Crossroads, Inc., February 2022.
2. Transit Noise and Vibration Impact Assessment Manual, Federal Transit Administration, September 2018, available at https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/research-innovation/118131/transit-noise-and-vibration-impact-assessment-manual-fta-report-no-0123_0.pdf.
3. Transportation and Construction Vibration Guidance Manual, California Department of Transportation, September 2013, available at https://www.contracosta.ca.gov/DocumentCenter/View/34120/Caltrans-2013-construction-vibration-PDF?bidId=,.

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4.11 Public Services

4.11.1 Introduction

This section addresses the potential impacts to fire protection, emergency medical services, and police protection that may result from construction or operation of the proposed project ("project"). The following discussion addresses existing police and fire conditions of the project site and surroundings, identifies and analyzes environmental impacts, and recommends measures to reduce or avoid adverse impacts anticipated from project implementation, as applicable. This section is based on the information contained from the *City of Blythe's Website*, the *Blythe General Plan,* and the *Blythe General Plan Environmental Impact Report*. References used in the preparation of this section are identified at the end of this section, and in **Chapter 8.0, *References,*** at the end of this Draft EIR.

Prior to the preparation of the Draft EIR, an Initial Study was prepared in advance of the NOP for this Draft EIR, and is included in **Appendix A**. Following the screening criterion related to public services in the NOP, the following threshold topic does not require additional analysis in this Draft EIR.

> *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any other public services:*

- *Schools?*
- *Parks?*
- *Other Public Utilities?*

The analysis determined that the proposed project has no potential to affect schools, or other public utilities. Energy use is assessed in **Section 4.5** of this report, and other utilities such as water and sewer services are discussed in **Section 4.14**. Potential effects on fire and police protection services are assessed below.

4.11.2 Existing Conditions

The project property is currently in use as irrigated agricultural land. No habitable structures occur on the site. As a baseline condition, the project site has minimal and negligible impacts on fire or police services.

Fire Protection Services

The project is located within the City of Blythe which is served by the Blythe Fire Department and the Riverside County Fire Department (RCFD)/California Department of Forestry (CALFIRE) through an automatic aid agreement. The Blythe Fire Department, located at 201 North Commercial Street, is the closest station to the project property, lying approximately 0.9 driving miles northeast from the project site. According to the Blythe Fire Department website, there are 29 staff members including one fire chief (one fire chief assistant), 5 fire captains, 6 fire engineers, and 16 firemen. Two additional stations are located within the City of Blythe: RCFD Station #43 located at 140 West Barnard Street, and RCFD Station #45 located at 17280 West Hobsonway. The stations are approximately 5.80 miles west and 1.2 miles northeast of the project, respectively. **Table 4.11-1** lists the three fire stations, their locations, and their distance from the project's proposed entrance on Hobsonway.

Table 4.11-1 Blythe Fire Station Locations

Fire Station	Location	Driving Distance from Project
Blythe Fire Department	201 N. Commercial Street	0.80 miles northwest
RCFD Fire Station 45	17280 W. Hobsonway	1.2 miles northeast
RCFD Fire Station 43	140 W. Barnard Street	5.80 miles west

The RCFD partners with 21 cities for contract services. The Fire Department operates under a Regional Fire Protection Program, which allows all their fire stations to provide support as needed regardless of jurisdictional boundaries. The RCFD provides 24-hour fire protection and emergency medical services to the City. Emergency medical paramedic services are currently provided to the City by American Medical Response (AMR), a private paramedic ambulance company. AMR operates a fleet of ambulances serving the City and region. AMR is connected to the County's dispatch system and responds in conjunction with Fire Department personnel.

Police Protection

The City of Blythe Police Department (BPD) is located at 240 North Spring Street, approximately 1.1 driving miles northeast of the project site. The BPD's service area covers all areas in the City limits (approximately 27 square miles). The BPD does not maintain a standard for emergency response times, however, officers are dispatched immediately in response to all emergency calls. Depending on the location of the officer at the time of the call, response times can range from 1 to 10 minutes.

According to the Blythe Police Department website, there are currently 28 staff members, 18 of which are patrol officers. The City of Blythe contracts for secondary back up services with the Riverside County Sheriff's Department. The County Sheriff's Department is located at 260 North Spring Street, approximately 1.1 driving miles from the project site. According to the Blythe General Plan EIR, the Sheriff's Department standard for emergency response time is not defined but as a practical matter the Sheriff responds as quickly and safely as possible. The total Riverside County Sheriff's service area

encompasses approximately 3,000 square miles and the response time directly relates to the distance from normal patrol areas.

4.11.3 Regulatory Setting

State

California Building Code

The California Building Code establishes the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.

California Fire Code

State fire regulations are set forth in Sections 13000 *et seq*. of the California Health and Safety Code, which include regulations concerning building standards (as also set forth in the California Building Code), fire protection and notification systems, fire protection devices and standards and fire suppression training.

Local

Blythe General Plan

The Blythe General Plan Safety Element discusses the various hazards in the City's urban and natural environments and provides special consideration to protect the public's safety. Public safety is reasonably assured in the City by the established policies and implementation of mitigation measures designed to reduce hazards, provide emergency response strategies, and coordinate emergency response agencies.

Fire protection and prevention services are considered essential for protecting the public's safety in Blythe. Fire protection services in the City are provided by the City of Blythe Volunteer Fire Department, Riverside County Fire Department, and California Department of Forestry. Guiding policies for fire protection and prevention in the City of Blythe includes: requiring new developments to install fire protection equipment/systems; requiring new developments to pay for increased fire protection; continuing to support the Fire Department's coordination with surrounding departments to provide fire protection services; and enforcing policies to protect the public's safety from urban and wildland fires.

Per the Blythe General Plan, law enforcement is also an essential service for protecting the public's safety in Blythe. Law enforcement services provided by the City of Blythe Police Department policies serve to enhance public safety in the City through maintenance of adequate law enforcement services.

The Safety Element of the Blythe General Plan also provides an assessment and discussion of emergency preparedness planning need for every-day services, as well as respond to major disasters. The Safety Plan in the Safety Element identifies appropriate actions to be taken by City staff during an emergency and identifies standards needed to ensure that an adequate level of emergency service is provided in the future.

Blythe Municipal Code

Title 15 of the Blythe Municipal Code (MC) is implemented for all building and construction occurring in the City. Section 15.04 is based on the 2019 California Building Code (CBC), which sets minimum design and standards for construction of buildings and structures that must also meet minimum fire requirements.

Section 15.24 of the Blythe Municipal Code adopts the 2019 CBC California Fire Code (with City amendments) to establish minimum requirements consistent with nationally recognized good practice for providing a reasonable level of life safety and property protection from the hazards of fire, explosion, or dangerous conditions in new and existing buildings, structures, and premises, and to provide safety to firefighters and emergency responders during emergency operations within the City.

Chapter 5.10 (Commercial Cannabis Activity) of the Municipal Code establishes regulations consistent with State law regarding cannabis activity. Within Chapter 5.10, the Blythe Municipal Code outlines security measures required to be implemented during operation of cannabis businesses in Section 5.10.250. The regulations include preventing loitering, establishing limited access, installing 24-hour security surveillance cameras, and installing monitored alarm systems.

Chapter 3.34 (Development Impact Fee) of the Municipal Code states that the development and construction of new structures within the City and the rehabilitation of existing structures create an immediate and urgent need for funds because of the increased demand placed upon public facilities including public safety facilities, park and recreation facilities, government service facilities, sewer facilities, water facilities, public amenities facilities, storm-drain facilities and transportation facilities. Therefore, in order to mitigate the impacts caused by new and anticipated development, a development impact fee is needed to finance public facilities and to pay for new development's fair share of the acquisition and improvement construction costs and other costs necessary or convenient to insure conformity to or implementation of the general plan and redevelopment plan(s). Developments within the City are required to comply with the City's development impact fees.

4.11.4 Project Impact Analysis

Thresholds of Significance

The thresholds derived from Appendix G of the CEQA Guidelines are used to determine the level of potential effect. The proposed project would have a significant effect on population and housing if it is determined that the project will:

a. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any other public services:

   Fire protection?

   Police protection?

   Schools?

   Parks?

   Other Public Facilities?

As noted, threshold topic "a", involving schools, parks, and other public facilities, is not analyzed in this Draft EIR since the Initial Study assessment of screening criterion related to these topics concluded that the project has no potential to impact these services.

Methodology

This analysis considers whether the proposed project would require the construction of new emergency and service facilities or alterations to such facilities to maintain acceptable performance standards for public services.

Project Design Features

The proposed project will be required to comply with existing regulations and standards (identified in the discussions below) to ensure that the project's potential impacts associated with public facilities and services related to fire and police emergency and non-emergency services do not result in significant impacts. Typical for cultivation facilities in the City of Blythe, the project shall be gated with no-cut / no climb perimeter fencing mounted at regular intervals with security cameras, thus increasing security and minimizing potential crimes. Additionally, lighting features throughout the project will enhance security and maximize visibility within the project including drive aisle, building frontages, parking areas, and street and building entrances. The project will also be required to comply with the most current building, fire, and electrical codes in place at the time development occurs.

Project Impacts

a. Impacts on:

Fire Protection

Development of the proposed project may cause an incremental increase in demand for emergency services, however, the size and location of the project is not expected to cause an adverse impact on the fire department. The closest fire station to the project is the Blythe Fire Department, located approximately 0.9 driving miles northeast of the site, at 201 North Commercial Street. The proposed project could be adequately served by fire protection services within the 10-minute response time, and no new or expanded facilities would be required as a result of the project. First response for fire protection services would primarily be from the Blythe Fire Station.

Additionally, the project complies with the Blythe General Plan *Fire Protection and Prevention Policies 10,* and *11,* which requires new developments to install fire protection equipment/systems and pay for increased fire protection as necessitated by the project. The project would be required to implement all applicable fire safety requirements, such as the installation of fire hydrants and sprinkler systems. The project shall also be reviewed by the Fire Department to assure that project access and design provide for maximum fire life safety.

Moreover, the project would be required to comply with Development/User Impact Fees in place at the time of construction. According to Blythe's 2019 User Fee Study, development fees for commercial buildings are $500.10 for the first 5,000 square feet (and $0.10 each additional square-foot under roof), which the City states is adequate to mitigate any potential significant impacts from new development. Payment of these fees goes towards the funding of public facilities including but not limited to fire stations, police services, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings. The City's development/user impact fees ensures that the project will reduce its impact on fire facilities. As a result, impacts associated with fire services will be less than significant.

<u>Off-Site Improvements</u>

The project proposes to connect to the existing water lines located on Hobsonway (north). The proposed water lines will consist of 12-inch and 8-inch water lines. The project proposes sewer infrastructure throughout the project that will consist of gravity sewer lines, lift stations, and force mains, which will connect to the City of Blythe's existing sewer system along Hobsonway. Approximately 1,200 linear feet of 8-inch PVC sewer pipes will be placed underground to connect the project's sewer infrastructure. Undergrounding of the proposed sewer lines will occur along Hobsonway in areas adjacent to the project boundary, as well as offsite areas east of the project site, along Hobsonway. Construction activities of the off-site improvement may briefly impact emergency response times on Hobsonway. Therefore,

construction of the proposed offsite improvements will require the implementation of Construction Traffic Control Plans (see **Section 4.12, *Transportation,*** for further discussion). With the implementation of the Construction Traffic Control Plans, construction of the offsite improvements will not significantly impact fire protection services and will cease once construction of the offsite improvements are complete. Operation of the offsite improvement will be integrated into the existing sewer infrastructure, which is managed by the City of Blythe. The connection to the existing sewer infrastructure will not change the site's fire suppression strategies, and impacts will be less than significant.

Police protection

Development of the proposed project may cause an incremental increase in demand for police services, however, the size and location of the project is not expected to cause an undue hardship on the police department. The closest fire station to the project is the Blythe Fire Department, located approximately 0.9 driving miles northeast of the site, at 201 North Commercial Street. The BPD does not maintain a standard for emergency response times, however, the officers are dispatched immediately in response to all emergency calls. Depending on the location of the officer at the time of the call, response times can range from 1 to 10 minutes.

The proposed project could be adequately served by police protection services within the 10-minute response time due to its proximity to the police department, and no new or expanded facilities would be required as a result of the project. The City of Blythe contracts for secondary back-up services with the Riverside County Sheriff's Department. The County Sheriff's Department is located at 260 North Spring Street, approximately 1.1 driving miles from the project site. According to the Blythe General Plan EIR, the Sheriff's Department standard for emergency response time is not defined but as a practical matter the Sheriff responds as quickly and safely as possible. The total Riverside County Sheriff's service area encompasses approximately 3,000 square miles and the response time directly relates to the distance from normal patrol areas.

The Riverside County Sheriff's Department strives to maintain a staffing ratio of 1.0 officer per 1,000 residents. Based on the City's current population of 18,556 the current police staffing ratio is 1.03 officers per 1,000 residents. Project build-out could result in an additional 534 service population, based on the VMT Evaluation provided by Urban Crossroads, Inc. (**Appendix M.2**), And is based upon an assumption that all of the future employees are from outside of the City, resulting in a 1.06 officer per resident ratio, which nominally exceeds the standard and accepted ratio of one officer per 1,000 residents but is below the County of Riverside's standard ratio of 1.5 officers per 1,000 residents. However, it is highly likely that a high percentage of the employees at the project site will be existing residents of the City of Blythe, and therefore, would not significantly increase the service population to be served by the BPD and Sheriff's Department.

The development would occur within an area of existing commercial uses, which is already being served by the Blythe Police Department. Additionally, the project complies with the Blythe General Plan *Crime*

Protection and Prevention Policy 14 which states that the City shall cooperate with the Police Department in periodically evaluating services and service criteria to ensure that the City continues to receive adequate law enforcement services. It also provides for continued cooperation with the Riverside County Sheriff's Department and other nearby law enforcement agencies to provide back-up police assistance in emergency situations. *Crime Protection and Prevention Policy 15* ensures that developments incorporate safety concerns into the site, circulation, building design and landscaping plans through the design review process. The project shall also be reviewed by the Police Department to assure that project access and design provide for a defensible space and maximum crime prevention while maintaining City design standards and codes.

The project would also be required to comply with Development/User Impact Fees in place at the time of construction. As previously stated, development fees for commercial buildings are $500.10 for the first 5,000 square feet (and $0.10 each additional square-foot under roof), which the City concludes is adequate to mitigate any significant impacts from new development. Payment of these fees goes towards the funding of public facilities including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings. In addition, the project will generate substantial additional transient occupancy and sales tax revenue that the City can use to fund additional officers and other personnel to increase staffing levels for the police services provided to the project and Citywide. The impact to police services will be less than significant.

Off-Site Improvements

Construction activities of the off-site water and sewer line improvements may briefly impact response times of police response times on Hobsonway. Therefore, construction of the proposed offsite improvements will require the implementation of Construction Traffic Control Plans (see **Section 4.12, *Transportation,*** for further discussion). With the implementation of the Construction Traffic Control Plans, construction of the off-site improvements will not significantly impact police protection services and will cease once construction of the offsite improvements are complete. Operation of the off-site improvements would not result in any impacts to police services, as it is an automated activity that is part of the City of Blythe's operations. Impacts will be less than significant.

Additionally, the project must be awarded a permit to operate a Commercial Cannabis Business by the Blythe City Council. The application process for the permit occurs in four phases. Fees are due at each phase of the process based on the costs associated with the review of applications for that phase. The analysis of the cannabis services relies primarily upon a standard unit cost build-up approach, where the reasonable cost of each fee occurrence using staff time to recover the direct cost of staff and the pro-rata share of departmental costs, including indirect costs for City Central Services, was determined. The project will be required to pay the City fees associated with cannabis businesses. Therefore, with the project's compliance with City development/user impact fees and City cannabis fees, impacts will be less than significant.

4.11.5 Cumulative Impacts

A "cumulative impact" refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. For purposes of assessing the project's cumulative impact with respect to public services, the cumulative analysis is based upon a list approach to determine the project's contributing effect on potential cumulative impacts related to public services (see **Table 4.0-1, *Cumulative Projects***).

Fire and Police Protection

Implementation of the proposed project and other related projects in the area would increase the demand for fire and police protection services over time. The project alone may increase populations since it will provide numerous new employment opportunities in the City. However, it is likely that most employees will be existing residents of the Blythe. Similar to the project, all cumulative projects listed in **Table 4.0-1** would result in an increase in demand for fire and police protection services. The project, as well as all future projects, will be required to implement all applicable fire safety requirements, such as the installation of fire hydrants and sprinkler systems.

The proposed project and future projects will also be subject to review by the fire and police departments to ensure access and other safety measures are implemented at the site.

As discussed in Section 4.11.4, the proposed project would not result in substantial adverse physical impacts associated with the provision of new or physically altered facilities. However, the cumulative projects listed in **Table 4.0-1** would result in additional demand of fire and police protection services, and the potential need for additional resources. However, all future projects would be required to comply with Development/User Impact Fees in place at the time of construction to ensure that their impacts to fire and police services are not cumulatively significant. These fees are designed to mitigate the impact of new development on the City's services as it occurs. The proposed project's contribution will not be cumulatively considerable.

4.11.6 Mitigation Measures

No impacts to public services are identified for the proposed project, and no mitigation measures are required.

4.11.7 Level of Significance after Mitigation

Implementation of existing regulations and standards identified above would ensure that the project's potential impacts associated with public facilities and services related to fire and police emergency and non-emergency services would be less than significant.

4.11.8 References

1. City of Blythe General Plan, March 2007.
2. City of Blythe General Plan Environmental Impact Report, Chapter 3.10, January 2007.
3. City of Blythe / City Departments / Police Department Website
4. City of Blythe User Fee Study, May 2019.

4.12 Transportation

4.12.1 Introduction

This section describes the existing setting and proposed improvements to intersections and roadways required for the implementation of the Edelweiss Sustainable Farms Cultivation Facility Project ("project"). This section also evaluates the potential for the proposed project to result in transportation and traffic impacts within Riverside County, the Palo Verde Valley, the City of Blythe and surrounding communities. This section is based on the information contained in the *Edelweiss Sustainable Farms Project Traffic Study* (TS*),* prepared by Urban Crossroads, revised February 17, 2022, the *Edelweiss Sustainable Farms Project Vehicle Miles Traveled (VMT) Analysis*, prepared by Urban Crossroads, February 17, 2022, and the *City of Blythe General Plan 2025*, March 2007. The TS and VMT Analysis are found in **Appendices M.1** and **M.2** of this Draft EIR.

California Environmental Quality Act (CEQA) Guidelines were revised to require the use of Vehicle Miles Traveled (VMT) as a replacement standard for automobile delay-based level of service (LOS). This is the new measure for identifying transportation impacts for land use projects. This statewide mandate was implemented on July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) ("Technical Advisory", available at https://opr.ca.gov/docs/20190122-743_Technical_Advisory.pdf).

The purpose of the TS was to evaluate the potential circulation system deficiencies that may result from the development of the proposed project and recommend improvements to achieve acceptable circulation system operational conditions. The TS was prepared based in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020)("Transportation Analysis Guidelines" available at https://rctlma.org/Portals/7/2020-12-15%20-%20Transportation%20Analysis%20Guidelines.pdf) as the City of Blythe does not have its own LOS/VMT analysis guidelines. To ensure that the TS satisfies the City of Blythe's traffic study requirements, Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff prior to the preparation of this report. The Agreement provides an outline of the project study area, trip generation, trip distribution, and analysis methodology. The Agreement approved by the City is included in **Appendix 1.1.** of the TS, included as **Appendix M.1** of this Draft EIR.

4.12.2 Existing Conditions

Environmental Setting

The Edelweiss Sustainable Farms property is located south of Hobsonway, north of Interstate 10 freeway (I-10), and approximately 0.25 miles west of South Carlton Avenue in the City of Blythe. The project site

currently operates as an agricultural field. Traffic at the property is currently minimal and reflective of agricultural scheduling. Mechanical harvesting is utilized for the onsite crops so only a moderate increase of traffic is seen during harvest season. Occasional PVID vehicles visit the site for observation or maintenance of C channel. A chain link fence separates the property from the I-10 right-of-way (ROW.)

The site has been subject to previous development and uses including agricultural and residential land uses, dirt roads and drainage channels. **Exhibit 3-3** of this DEIR, ***Aerial Photograph***, displays an aerial image of the project site's current condition.

Vehicular access to the project is provided by existing public Major Arterial Collector Hobsonway. This road is currently paved with two lanes and no curb or gutter. A dirt roadway and culvert crossing currently extend from Hobsonway into the property. The project will be required to widen and improve Hobsonway to its ultimate General Plan half-width. Regional access to the site is provided by Interstate 10, North Lovekin Boulevard, and other major arterials.

Roadway Facilities

Vehicular Access

The regional roadways that serve the city include Interstate 10, State Highways 78 and 95. Highway 78 begins at its juncture with I-10 approximately 2.5 miles west of the subject property and extends south/southwest to Brawley in the Imperial Valley. Highway 95 begins at the juncture with I-10 approximately 2.5 miles east of the subject property and connects the planning area and other parts of the Palo Verde Valley with the City of Needles, the Mojave Valley and Interstate 40. Interstate 10 connects the Los Angeles region with Arizona and other cities and states to the east. These roadways provide regional and interstate, and international connections for the City and the Palo Verde Valley.

Proposed Project

The project consists of multiple applications that will result in the development of a Cultivation and Processing Facility, a commercial complex specialized for indoor cultivation of cannabis. The project will develop 736 parking spaces and internal paved drive aisles throughout. Emergency access only will be provided at the northwest and northeast corners of the property. The emergency access points will be gated with two, 12-foot swing gates.

The Edelweiss Sustainable Farms project is proposed to be served by the primary project access location listed below (see **Exhibit 4.12-1, *TS Study Area***):

- Hobsonway / Project Driveway (#6) (full access)



LEGEND:

5 = EXISTING ANALYSIS LOCATION

(1) = FUTURE ANALYSIS LOCATION

– – – – = FUTURE DRIVEWAY

N

Source: Exhibit 1-2, *Traffic Study*, Urban Crossroads, Inc.

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

STUDY AREA
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.12-1

4.12.3 Regulatory Setting

State Regulations

SB 743

Senate Bill (SB) 743, adopted in 2013 and codified in Public Resources Code Section 21099, required changes to the CEQA guidelines regarding the analysis of transportation impacts. As a result of SB 743, the recommended metric in the CEQA guidelines for transportation impacts is Vehicle Miles Traveled (VMT). The legislative intent of SB 743 was to balance the needs of congestion management with statewide goals for infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions. The Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December 2018.) As required by SB 743, VMT replaced the former metric used to analyze traffic impacts, which was previously automobile delay-based LOS. A statewide mandate was implemented on July 1, 2020. At this time lead agencies were required to analyze CEQA traffic impacts using VMT. Automobile delay as measured by LOS was no longer a methodology utilized to determine significance under CEQA. Lead agencies in Riverside County were allowed to utilize OPR CAPCOA guidance, the County of Riverside guidance or develop their own methodology.

Regional and Local Setting

Regional Transportation Improvement Plan

The Regional Transportation Plan (RTP) is a multi-modal long-range planning document prepared by the Southern California Association of Governments (SCAG) in coordination with federal, state and other regional, sub-regional, and local agencies in southern California. The RTP, prepared every three years, addresses future needs based on a 20-year projection. It includes programs and policies for congestion management, transit, bicycle, pedestrians, roadway, freight, and finances. It is intended to be used as a long-range plan for federally funded transportation projects. Currently, regional projects are programmed in the Riverside County Transportation Improvement Plan (TIP), while locally funded projects (off the State Highway System) are identified in local agency CIPs. To comply with Congestion Management Plan (CMP) Statutes, regional CIP requirements are identified through the RCTC TIP development process. Projects in the City's CIP may be incorporated into the Regional Transportation Improvement Program (RTIP) for the programming of Flexible Congestion Relief (FCR) and Urban and Commuter Rail funds.

Congestion Management Program

The Congestion Management Program (CMP) is intended to link land use, transportation, and air quality with reasonable growth management methods, strategies and programs that effectively utilize new transportation funds to alleviate traffic congestion and related impacts. Pursuant to the CMP Legislation's process for designating the CMA (AB 471, AB 1791, AB 1963 and AB 2419) , in 1990 the Riverside County Board of Superviors designated the Riverside County Transportation Commission (RCTC) as the designated Congestion Management Agency (CMA) that prepares the Riverside County Congestion Management Program updates in consultation with local agencies, the County of Riverside, transit agencies and sub-regional agencies like the Coachella Valley Association of Governments (CVAG). The CMA has the authority to monitor compliance with the adopted program. An amendment to the Government Code requires the CMA to update and adopt the CMP every two years consistent with the development of the Regional Transportation Improvement Program (RTIP).

Although, the State amended the language to allow for voluntary implementation of the CMP, the legislature passed AB 32 and SB 375, which emphasized the reduction of greenhouse gases by reducing vehicle miles traveled (VMT) and the development of a Sustainable Communities Strategy (SCS) that each Metropolitan Planning Organization agency must prepare in conjunction with its Regional Transportation Plan. Locally, RCTC continued implementing its half-cent sales tax, Measure A, that provided for a list of projects and programs to relieve congestion. In addition, Transportation Uniform Mitigation fee (TUMF) programs administered by the Coachella Valley Association of Governments (CVAG) funded transportation improvements on arterials, highway interchanges, grade separations and transit (discussed subsequently.)

The RCTC has designated a system of highways and roadways to include at a minimum all State Highway facilities within Riverside County and a system of principal arterials as the Congestion Management System (CMS.) The following facilities are designated as part of the Riverside CMP System of Highways and Roadways within the Palo Verde Valley.

- I-10 (San Bernardino County Line to State line)

Most local agencies in Riverside County and Caltrans have adopted Level of Service (LOS) standards of "C" or "D" to maintain a desired LOS for the local circulation system (Riverside County Long Range Transportation Study, available at https://www.rctc.org/wp-content/uploads/2019/12/RCTC-Draft-LRTS-120119-GV22.pdf).

Caltrans

The Caltrans' Guide for the Preparation of Traffic Impact Studies (December 2002) states "Caltrans endeavors to maintain a target LOS at the transition between LOS C and LOS D. However, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. LOS D was assumed to be the minimum acceptable standard for Caltrans facilities. The project causes a significant impact if it causes the LOS to change from

an acceptable LOS (LOS D or better) to a deficient LOS (LOS E or worse) or increase delay/density on a facility operating at an unacceptable level.

County of Riverside General Plan

The County of Riverside General Plan Circulation Element defines LOS D as the minimum acceptable operations on its facilities. According to the County of Riverside Traffic Impact Analysis Guidelines, the following types of traffic impacts are considered for planning purposes:

- When existing traffic conditions exceed the General Plan target LOS
- When project traffic, when added to existing traffic, will deteriorate the LOS to below the target LOS and impacts cannot be improved through project conditions of approval.
- When cumulative traffic exceeds the target LOS, and impacts cannot be improved through the TUMF network (or other funding mechanism,) project conditions of approval, or other implementation mechanisms.

In response to SB 743, the County currently utilizes *Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled* (December 2020) and LOS is used for General Plan Consistency only.

Coachella Valley Regional Arterial Program

The CVAG administers the Coachella Valley Regional Program, which allocates Measure A and Transportation Uniform Mitigation Fee (TUMF) funds for necessary improvements to the regional transportation system.

Measure A, approved by Riverside County voters in 1988, imposes a half-cent increase in sales tax over a 20-year period to be used for transportation purposes. In November 2002, Riverside County voters approved a 30-year extension of Measure A (2009-2039.) Measure A funds contribute a portion of the funds for transportation system improvements projected to be needed over the next 25 years.

The TUMF is a development impact assessment that provides funding for transportation improvements required to support new development based on the number of vehicle trips new development will generate. Approximately 55 percent of the funding provided by CVAG consists of TUMF funds with the remainder consisting of Measure A funds. CVAG prepares the Transportation Project Priority Study (TPPS) every 5 five years to determine funding availability for improvements to regional arterials by prioritizing the eligible study segments based on an assessment of the need for improvement.

Available TUMF and Measure A revenues are applied to TPPS projects in order of priority. Because a project's priorities set out in the TPPS control the order of funding, it also generally controls the approximate timeframe for each project.

To conform to CVAG policies, all CVAG member agencies require the construction of adopted road construction standard improvements for missing regional road segments located adjacent to land development projects.

City of Blythe

City of Blythe Development Impact Fee (DIF) Program

The City of Blythe has created a local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purposes of funding roadways and intersections necessary to accommodate City growth. These fees are codified in the City's Municipal Code and are subject to periodic review and adjustment in future years to ensure that the City collects sufficient funds to construct the additional infrastructure needed to serve new residents and businesses developing in town.

City of Blythe General Plan

Pedestrian and Alternative Facilities

Class II bike lanes are proposed along Lovekin Boulevard and Hobsonway approximately 0.5 miles to the east of Lovekin Boulevard, which are not adjacent to the project.)

Transit Service

The City of Blythe is currently served by the Palo Verde Valley Transit Agency (PVVTA). PVVTA Routes 1 through 6 currently serve the study area. Transit service is reviewed and updated periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where and as appropriate.

Truck Access

The City of Blythe Circulation Element identifies Hobsonway and Neighbours Boulevard as designated truck routes within the study area.

4.12.4 Project Impact Analysis

The following thresholds are derived from Appendix G of the CEQA Guidelines and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064 of the CEQA Guidelines. Implementation of the proposed project would have a significant effect on Transportation if it is determined that the project will:

a. Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities.
b. Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b).
c. Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment).
d. Result in inadequate emergency access.

Methodology

Vehicle Miles Traveled

The City of Blythe utilizes the December 2020 County of Riverside Transportation Guidelines for Vehicle Miles Traveled (VMT) assessments. Figure 3 of the December 2020 County Guidelines for VMT sets forth screening criteria under which Projects are not required to submit detailed VMT analysis. This guidance for determination of non-significant VMT impact is primarily intended to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743.

The Screening Criteria for Development Projects includes the following types of projects:

- SMALL PROJECTS: This applies to projects with low trip generation per existing CEQA exemptions or based on the County Greenhouse Gas Emissions Screening Tables, result in a 3,000 Metric Tons of Carbon Dioxide Equivalent (MTCO2e) per year screening level threshold.
- PROJECTS NEAR HIGH QUAILITY TRANSIT: High quality transit provides a viable option for many to replace automobile trips with transit trips resulting in an overall reduction in VMT
- LOCAL-SERVING RETAIL: The introduction of new Local serving retail has been determined to reduce VMT by shortening trips that will occur.
- AFFORDABLE HOUSING: Lower-income residents make fewer trips on average, resulting in lower VMT overall.
- LOCAL ESSENTIAL SERVICE: As with Local-Serving Retail, the introduction of new Local Essential Services shortens non-discretionary trips by putting those goods and services closer to residents, resulting in an overall reduction in VMT.
- MAP-BASED SCREENING: This method eliminates the need for complex analyses, by allowing existing VMT data to serve as a basis for the screening smaller developments. Note that screening is limited to residential and office projects.
- REDEVELOPMENT PROJECTS: Projects with lower VMT than existing on-site uses, can under limited circumstances, be presumed to have a non-significant impact. In the event this screening does not apply, projects should be analyzed as though there is no existing uses on site (project analysis cannot take credit for existing VMT).

Level of Service

Prior to SB 743, a significant traffic impact would occur if the addition of project-generated trips caused an intersection to change from an acceptable LOS (D or better) to a deficient LOS (LOS E or worse), or if project traffic increased the delay at any intersection already operating at an unacceptable LOS, or increase delay/density on a facility operating at an unacceptable level. The use of VMT as the metric for evaluating traffic impacts under CEQA replaces the earlier practice of evaluating traffic primarily on LOS. Now, vehicle delay as measured by LOS or similar standards cannot be considered a significant impact on the environment in CEQA transportation evaluations. Therefore, the LOS roadway analysis and construction traffic impact analysis is provided to ensure consistency with General Plan policies, and

is not used as a basis for determining the significance of transportation impacts under CEQA, consistent with the requirements of SB 743.

Level of Service (LOS) is a measure of transportation system performance based upon the ratio of traffic volume relative to the capacity of the roadway or intersection. The volume-to-capacity ratio (V/C) indicates the overall performance of the roadway segment or intersection and corresponds to a rating of A through F identifying its level of capacity utilization and relative level of congestion. LOS A represents free-flow traffic with little or no delay whereas LOS F represents a breakdown of traffic flow and a high incidence of delay. The volume-to-capacity ratio (V/C) is utilized to indicate the overall projected performance of the roadway segment or intersection.

Required Intersection Level of Service

The City of Blythe has established LOS D and/or a maximum volume to capacity ratio of 0.90 is as the provisionally acceptable LOS for its intersections. Therefore, any intersection operating at LOS E or F and/or with a volume to capacity ratio greater than 0.90 will be considered deficient and therefore inconsistent with the City's general plan.

Per City traffic study guidelines, **Table 4.12-1, R*equired Intersection Levels of Service*** and **Table 4.12-2, Impact Criteria for Intersections Already Operating** show the LOS criteria used in the analysis of the project.

Table 4.12-1 Required Intersection Levels of Service

Intersection Type	LOS Criteria
Signalized Intersection	LOS D or Better
All-Way Stop Controlled Intersection	LOS D or better for all critical movements
Cross-Street Stop Controlled Intersection	LOS E or better for the side street

Table 4.12-2
Impact Criteria for Intersections Already Operating at LOS E or LOS F

Significant Changes in LOS	
LOS E	An increase in delay of 2 seconds or more
LOS F	An increase in delay of 2 seconds or more

The City of Blythe requires the operations of unsignalized intersections be evaluated using the methodology described in the methodology described in Chapter 19, Chapter 20, and Chapter 32 of the HCM 6th Edition. (3) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see **Table 4.12-3**).

At two-way or side-street stop-controlled intersections, LOS was calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a

whole. For approaches composed of a single lane, the delay was computed as the average of all movements in that lane.

A potentially significant cumulative impact at an unsignalized study area intersection is defined to occur when, with project traffic included, an intersection has a projected LOS F on a side street for a two-way stop control or LOS E or worse for an all-way stop controlled intersection and the addition of project traffic results in an addition of 3 seconds or more of delay for any movement.

Table 4.12-3 illustrates the unsignalized intersection description of LOS.

Table 4.12-3 Unsignalized Intersection Description of LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service V/C ≤ 1.0	Level of Service V/C > 1.0
Little or no delays	0 to 10.00	A	F
Short traffic delays	10.01 to 15.00	B	F
Average traffic delays	15.01 to 25.00	C	F
Long traffic delays	25.01 to 35.00	D	F
Very long traffic delays	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded	>50.00	F	F

At two-way or side-street intersections, LOS is calculated for each controlled movement and for the left turn movement from a major street, as well as for the intersection. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection.

For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as shown in **Table 4.12-4**.

Table 4.12-4 Signalized Intersection Description of LOS

Description	Average Control Delay (Seconds) V/C ≤ 1.0	Level of Service V/C ≤ 1.0	Level of Service V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length	0 to 10.00	A	F
Operations with low delay occurring with favorable progression and/or short cycle lengths	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and Individual cycle failures are noticeable	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay	55.01 to 80.00	E	F
Operations with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths	80.01 and up	F	F

Signal Warrants

The term "signal warrants" refers to the list of established criteria used by the California Department of Transportation (Caltrans) and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. The TS uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), as amended by the MUTCD 2014 California Supplement, for all study area intersections.

Meeting the signal warrant threshold condition does not automatically require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions should be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS: an intersection may satisfy a signal warrant condition and operate at or above LOS "D" or operate below LOS "D" and not meet a signal warrant.

Traffic Signal Warrant Methodology

The TS uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), as amended by the MUTCD 2014 California Supplement, for all study area intersections.

The signal warrant criteria for Existing conditions are based on several factors including volume of vehicular and pedestrian traffic, frequency of accidents and location of school areas. Both the FHWA's MUTCD and the MUTCD 2014 California Supplement indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically the TS utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections (e.g. located in communities with populations of less than 10,000 persons of with adjacent major streets above 40 miles per hour.) The speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Traffic Study

A detailed traffic study (TS) was prepared for the proposed project by Urban Crossroads, August 16, 2021. The TS was prepared in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (February 2021) as the City of Blythe does not have its own LOS/VMT analysis guidelines. To ensure that this TS satisfies the City of Blythe's traffic study requirements, Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff. The approved Scope is included in Appendix 1.1 of the TS.

The purpose of the TS is to evaluate the potential circulation system deficiencies that may result from the development of the proposed project and recommend improvements to achieve acceptable circulation system operational conditions.

Roadway Intersections

The TS was based upon an analysis of existing roadway conditions in the project vicinity, a variety of traffic count sources (including peak hour counts collected by the consulting traffic engineers), the General Plan Circulation Element, planned roadway improvements and other data and information. The TS provides documentation and analysis of existing traffic conditions, trips generated by the project, distribution of the project trips to roads outside the project, and projected future traffic conditions.

The potential impacts to traffic and circulation were evaluated for each of the following conditions:

- Existing (2021) Conditions
- Cumulative 5 Year (2026) without Project Conditions
    - Existing 2021 volumes
    - Ambient growth traffic (10.408%)
    - Cumulative Development Project traffic
- Cumulative 5 Year (2026) with Project Conditions
    - Existing 2021 volumes
    - Ambient growth traffic (10.408%)
    - Cumulative Development Project traffic
    - Project traffic
- General Plan (2040) without Project Conditions

- General Plan (2040) with Project Conditions

Future Traffic Conditions

Future traffic conditions were evaluated, to include existing traffic, ambient growth, and other developments in the area. Future "with project" conditions analyzed project traffic plus existing ambient growth plus cumulative traffic conditions.

Please note that the General Plan (2040) scenarios are discussed below under the Cumulative Impacts section.

A total of 6 intersections were evaluated for their current and future operating conditions. Intersection #5 Lovekin Boulevard / Hobsonway is the only signalized intersection in the study area. **Table 4.12-5** identifies the 6 study area intersections.

Table 4.12-5 Intersections ID and Location

ID	Intersection Location	ID	Intersection Location
1	Defrain Boulevard/Hobsonway	4	Neighbors Boulevard / I-10 WB Ramps
2	Neighbours Boulevard / Hobsonway	5	Lovekin Boulevard / Hobsonway
3	Neighbours Boulevard / I-10 WB Ramps	6	Project Driveway / Hobsonway

The intersection LOS analysis is based on the traffic volumes observed during the peak hour conditions using traffic count data collected in June 2021. The following peak hours were selected for analysis:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

The traffic modeling and signal timing optimization software package Synchro was utilized to analyze study area intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity as specified in the HCM (Highway Capacity Manual). Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections.

Peak hour traffic volumes were adjusted using a peak hour factor (PHF) to reflect peak 15-minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are normally expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 X Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more details analysis as compared to analyzing vehicles per hour.

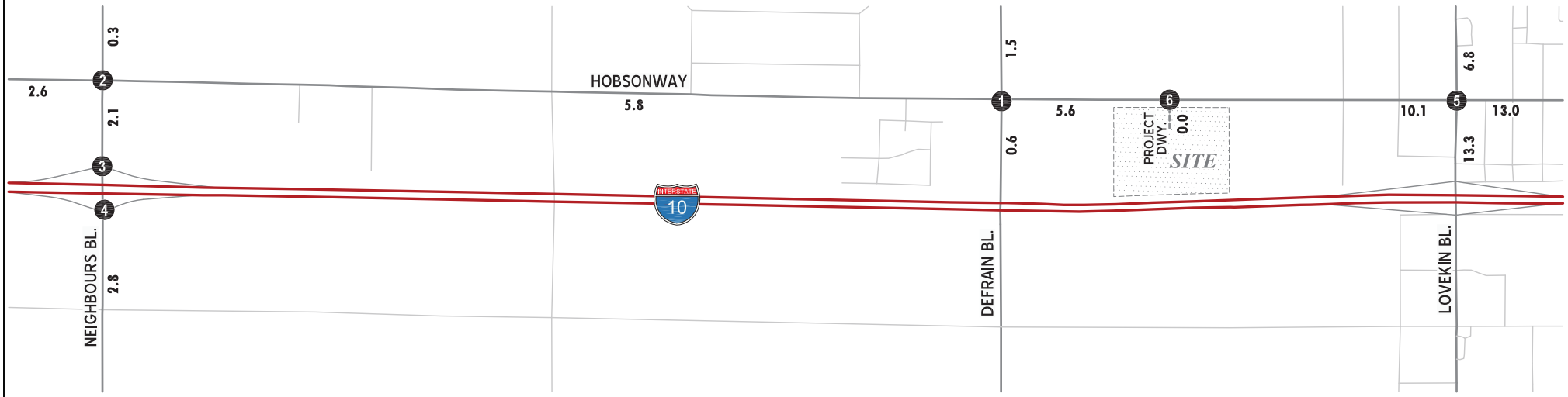
The signal warrant criteria for Existing conditions are based on several factors including volume of vehicular and pedestrian traffic, frequency of accidents and location of school areas. Both the FHWA's MUTCD and the MUTCD 2014 California Supplement indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. Specifically, the TS utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections (e.g., located in communities with populations of less than 10,000

persons of with adjacent major streets above 40 miles per hour.) The speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Covid Adjustments: Due to the COVID-19 pandemic, these 2021 peak hour counts are anticipated to be lower than typical conditions. Based upon recent Coachella Valley traffic analyses, a 33% increase has been applied to the raw June 2021 counts to estimate for "typical/non-COVID-19" 2021 conditions. In addition, the raw June 2021 counts taken during the month of June have also been increased by 15% in order to estimate peak season conditions. Existing weekday AM and PM peak hour intersection volumes are also shown on **Exhibit 4.12-2**. **Exhibit 4.12-2** also shows existing weekday average daily traffic (ADT) volumes on arterial highways Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

Background Growth: To account for background traffic growth, the existing (2021) volumes have been adjusted by adding 5 years of background (ambient) growth (2% per year, total of 10.408% compounded over a 5-year period). Conservatively, this TS estimates the area ambient traffic growth for 2026 conditions and then adds traffic generated by other known or probable related projects in conjunction with Project traffic. These related projects are at least in part already accounted for in the assumed 2% of ambient growth; and some of these related projects would likely not be implemented and operational within the 2026 Cumulative 5 Year (2026) time frame assumed for the Project.



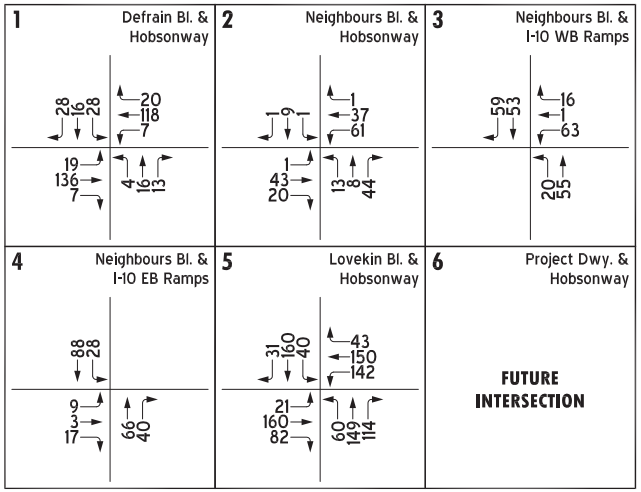
LEGEND:

6 = INTERSECTION ID

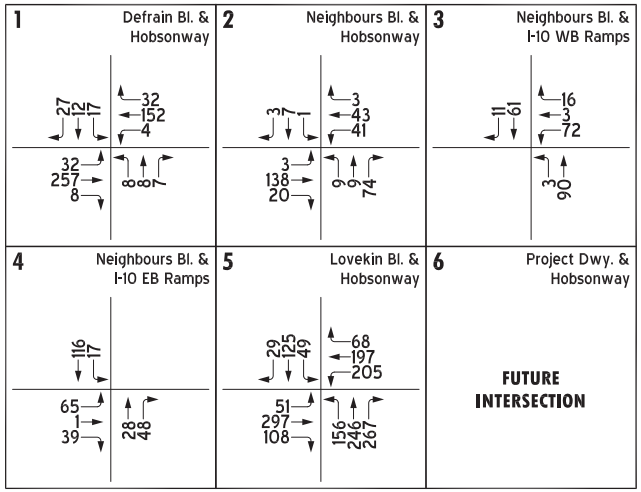
= FUTURE PROJECT DRIVEWAY

10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR



N

Source: Exhibit 3-7, *Traffic Study*, Urban Crossroads, Inc.

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> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

EXISTING (2021) TRAFFIC VOLUMES
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.12-2

Project trips were generated based on the rates collected by the Institute of Transportation Engineers (ITE) Trip Generation Manual, 10th Edition, 2017. As mentioned previously, the TS study area is illustrated in **Exhibit 4.12-1**.

Project Impact

a. *Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit roadway, bicycle and pedestrian facilities?*

Project Trip Generation

Trip generation was calculated by land use type using the reference Trip Generation, 10th Edition (2017) prepared by the Institute of Transportation Engineers (ITE). Trip Generation for the project was determined by utilizing published rates for the peak hour of the generator rather than for the peak hour of adjacent street traffic, where possible. ITE trip generation rates for Processing and Cultivation (Manufacturing) (Code 140), and Administration/Office Building (Code 715) are used.

Table 4.12-6 illustrates the Trip Generation Summary for the project based on ITE Land Use classifications.

Table 4.12-6 Trip Generation Rates

Trip Generation Rates									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	509.103 TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	24.709 TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet.

The project includes three gated access points which will consist of two 12-foot swing gates. Primary access will be located on Hobsonway at the approximate center of the northern boundary. The security guardhouse will be located at this access point to monitor authorized personnel onto and out of the property. Emergency exits are proposed at the northeast and northwest corners of site, on Hobsonway. All parking will be located within the fenced boundaries of the project.

The internal circulation system will consist of a series of driveways providing access to the proposed buildings within the project area. The proposed internal rights of way will be 24-foot-wide drives. Pedestrian walkways will be located along the project frontage, adjacent to Hobsonway, as well as along building frontages and retention areas.

Proposed Project Buildout

As shown on **Table 4.12-7,** the proposed project is anticipated to generate a net total of 2,279 trip - ends per day with 359 AM peak hour trips and 383 PM peak hour trips.

Table 4.12-7 Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
Total			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet; RM

Trip distributions for the project are depicted in **Exhibit 4.12-3.** According to **Exhibit 4.12-3** approximately 55% of the project generated traffic is expected to exit the project and continue west along Hobsonway, while approximately 45% of the project generated traffic is expected to exit and continue east.



LEGEND:

10 = PERCENT FROM/TO PROJECT

= FUTURE DRIVEWAY

N

Source: Exhibit 4-1, *Traffic Study*, Urban Crossroads, Inc.

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

PROJECT TRIP DISTRIBUTION
EDELWEISS SUSTAINABLE FARMS
EXHIBIT 4.12-3

Project Design Features

The traffic analysis was based on the following assumptions for improvements, which must be made conditions of approval for the project, in order to assure that impacts remain less than significant. Site access improvements and project driveway configurations are anticipated to be in place for project conditions:

Hobsonway – Hobsonway is an east-west oriented roadway located along the projects' northern boundary. Construction of Hobsonway from the project's westerly boundary to the project's easterly boundary at its ultimate half-section width shall be as a Major Arterial Collector (96-foot right-of-way) in compliance with the applicable City of Blythe standards.

Project Driveway / Hobsonway (#6) – Install a stop control on the northbound approach and construct one shared left/right turn lane as illustrated on **Exhibit 4.12-2**.

On-site traffic signing and striping will be implemented in conjunction with detailed construction plans for the project site.

Sight distance at the primary access point will be reviewed with respect to standard Caltrans and City of Blythe sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

TS Analysis Scenarios

Existing (2021) Conditions

The project is located south of Hobsonway and approximately 0.25 miles east of Dufrain Way and 0.5 miles west of Lovekin Boulevard on approximately 34 acres. The segment of Hobsonway that is adjacent to the project is designated as a Major Arterial Collector (4-Lanes, undivided, with parking.) Hobsonway is currently an east/west paved roadway, with two lanes and no curb or gutter.

The study area has nominal existing pedestrian and bicycle paths in the study area. Intermittent sidewalks exist for sections of the roadway system. Existing sidewalks are located mostly around the Lovekin Boulevard/Hobsonway intersection; however, they are not contiguous.

As shown in **Table 4.12-8**, 5 area intersections were analyzed in the TS study area and all 5 existing intersections are currently operating at LOS D or better. The project driveway does not exist under these conditions.

Existing Intersection Level of Service

Table 4.12-8 Intersection Analysis for Existing (2021) Conditions *

#	Intersection	Traffic Control *(Note 3)*	Intersection Approach Lanes *(Note 1)*				Delay (Secs) *(Note 2)*		Level of Service *(Note 2)*	
			Northbound	Southbound	Eastbound	Westbound	AM	PM	AM	PM
			L/T/R	L/T/R	L/T/R	L/T/R				
1	Defrain Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	11.4	13.4	B	B
2	Neighbours Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	10.8	10.8	B	B
3	Neighbours Bl./ I-10 WB Ramps	CSS	0.5/0.5/0	0/1/1	0/0/0	0.5/0.5/1	10.0	10.3	B	B
4	Neighbours Bl./ I-10 EB Ramps	CSS	0/1/1	0.5/0.5/0	0.5/0.5/1	0/0/0	10.1	10.9	B	B
5	Lovekin Bl./ Hobsonway	TS	1/2/0	1/2/0	1/2/0	1/2/0	31.8	37.7	C	D
6	Project Dwy / Hobsonway		Intersection Does Not Exist							

1. When a right turn is designated the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient for right turning vehicles to travel outside the through lanes.
   L = Left; T = Through; R = Right; 1! = Shared Left/Thru/Right Lane; 0.5=Shared Lane
2. Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.
   For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
   Delay and level of service is calculated using Synchro 10.1 software
3. TS = Traffic Signal; CSS = Cross-street Stop

Existing Roadway Forecasts Summary

Traffic Signal Warrants for existing traffic conditions indicate that, based on existing peak hour intersection turning volumes, no existing unsignalized study area intersections currently warrant a traffic signal.

General Plan LOS consistency is analyzed in section a) below, while VMT is analyzed in section b) of this Transportation discussion.

Cumulative 5 Year (2026) without Project Conditions

Table 4.12-9: The Cumulative 5 Year (2026) without Project Conditions analysis determines circulation system deficiencies that would occur on the existing roadway system if the project did not exist. To account for background traffic growth, ambient growth and cumulative project growth was included for (2026) traffic conditions. Under this scenario all 5 existing area intersections are expected to operate at acceptable LOS.

Table 4.12-9 Intersection Analysis for Cumulative 5 Year (2026) Without Project Conditions

#	Intersection	Traffic Control *(Note 3)*	Intersection Approach Lanes *(Note 1)*				Delay (Secs) *(Note 2)*		Level of Service *(Note 2)*	
			Northbound	Southbound	Eastbound	Westbound	AM	PM	AM	PM
			L/T/R	L/T/R	L/T/R	L/T/R				
1	Defrain Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	13.5	15.8	B	C
2	Neighbours Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	11.9	13.0	B	B
3	Neighbours Bl./ I-10 WB Ramps	CSS	0.5/0.5/0	0/1/1	0/0/0	0.5/0.5/1	10.5	10.7	B	B
4	Neighbours Bl./ I-10 EB Ramps	CSS	0/1/1	0.5/0.5/0	0.5/0.5/1	0/0/0	10.7	11.3	B	B
5	Lovekin Bl./ Hobsonway	TS	1/2/0	1/2/0	1/2/0	1/2/0	33.6	42.1	C	D
6	Project Dwy / Hobsonway		Intersection Does Not Exist							

1. *When a right turn is designated the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient for right turning vehicles to travel outside the through lanes.*
   L = Left; T = Through; R = Right; 1! = Shared Left/Thru/Right Lane; 0.5=Shared Lane
2. *Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.*
   For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
   Delay and level of service is calculated using Synchro 10.1 software
3. *TS = Traffic Signal; CSS = Cross-street Stop*

Cumulative 5 year (2026) With Project Traffic Volume Forecasts Summary:

For the purposes of this analysis the Cumulative 5 Year (2026) with Project Conditions analysis scenario was utilized to determine potentially significant project impacts associated with the development of the proposed project and cumulative projects and any corresponding improvements necessary to address potential impacts. Under Cumulative 5 Year (2026) with Project Conditions, the 6 (5 existing and the 1 project entry) study area intersections are anticipated to continue to operate at acceptable LOS with the addition of project traffic.

Table 4.12-10 Intersection Analysis for Cumulative 5 Year (2026) With Project Conditions

#	Intersection	Traffic Control *(Note 3)*	Intersection Approach Lanes *(Note 1)*				Delay (Secs) *(Note 2)*		Level of Service *(Note 2)*	
			Northbound	Southbound	Eastbound	Westbound	AM	PM	AM	PM
			L/T/R	L/T/R	L/T/R	L/T/R				
1	Defrain Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	16.5	20.5	C	C
2	Neighbours Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	13.2	18.5	B	c
3	Neighbours Bl./ I-10 WB Ramps	CSS	0.5/0.5/0	0/1/1	0/0/0	0.5/0.5/1	11.9	11.8	B	B
4	Neighbours Bl./ I-10 EB Ramps	CSS	0/1/1	0.5/0.5/0	0.5/0.5/1	0/0/0	12.5	15.4	B	B
5	Lovekin Bl./ Hobsonway	TS	1/2/0	1/2/0	1/2/0	1/2/0	33.6	43.2	C	D
6	Project Dwy / Hobsonway	**CSS**	0/**1!**/0	0/0/0	0/1/0	0.5/0.5/0	17.2	30.5	C	D

1. *When a right turn is designated the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient for right turning vehicles to travel outside the through lanes.*

*L = Left; T = Through; R = Right; 1! = Shared Left/Thru/Right Lane; 0.5=Shared Lane; **1** = Lane Improvement*

2. *Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.*
   For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
   Delay and level of service is calculated using Synchro 10.1 software
3. *TS = Traffic Signal; CSS = Cross-street Stop*

In summary, under 2026 traffic conditions, all 5 study intersections are anticipated to maintain acceptable LOS under "without project" conditions. Under 2026 "with project" conditions all 6 study intersections are anticipated to maintain acceptable LOS (including the project driveway.)

Traffic Signal Warrants

Traffic Signal Warrants for 2026 with project traffic conditions indicate that, based on peak hour intersection turning volumes, no unsignalized study area intersections warrant a traffic signal.

Congestion Management Plan

The County Congestion Management Plan (CMP) requires a LOS E or better for regional roadways. The generation, distribution, and management of project traffic is not expected to conflict with the CMP; no CMP roadways occur in the vicinity of the project. The project and background traffic will not exceed City level of service standards or travel demand measures, or other standards established by the City or Riverside County Transportation Commission (RCTC) for designated roads or highways.

The Transportation Uniform Mitigation Fees (TUMF) program identifies network backbone and local roadways that are needed to accommodate growth.

The project will be required to pay TUMF fees in place at the time that building permits are sought. This requirement will assure that the project is consistent with General Plan policies regarding the regional roadway system. Following the payment of required fees such as TUMF and DIF, less than significant impacts are anticipated relative to the CMP.

Existing Transit Service and Bicycle and Pedestrian Access

No General Plan bike paths are proposed on Hobsonway. The project design will not conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities. Less than significant impacts are anticipated and the project is consistent with all relevant plans.

Fair Share Contribution

In general, a project's fair share contribution can include a combination of fee payments to established programs, construction of specific improvements with applicable fee credits or reimbursements, payment of a fair share contribution toward future improvements, or a combination of these

approaches. Except to the extent provided otherwise below, the project's fair share contribution for the required improvements specified above is satisfied through the project's payment of the City's development impact fees. As set forth in the User Fee Study dated May 2019, the traffic component of the City's DIF is calculated to ensure that future development funds its fair share of necessary improvements to meet the City's General Plan transportation policies. (See the Cumulative Impacts portion of this Traffic Section for further discussion of Fair Share Contribution calculations.)

Under 2026 conditions, following the implementation of project improvements, City and Agency Review, Standard Conditions, participation in the Traffic Uniform Mitigation Fee (TUMF) program and payment of DIF, less than significant impacts are anticipated.

b. Conflict or be inconsistent with CEQA Guidelines sections 15064.3, subdivision (b)

Vehicle Miles Travelled (VMT):

The California Environmental Quality Act (CEQA) procedures for determination of transportation impacts have recently changed to an evaluation of Vehicle Miles Traveled (VMT) rather than vehicle delay or LOS, due to Senate Bill 743 (SB 743).

Methodology

Significance threshholds:

Based on OPR's Technical Advisory, the County of Riverside adopted their Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled (December of 2020) (County Guidelines). The adopted County Guidelines have been utilized to prepare this VMT analysis.

According to industry standards the appropriate methodology to utilize for a Cannabis Cultivation and Processing Facility such as the Project includes the following significance threshold.

- Light Industrial (Includes Commercial Cannabis Operations): the base model year project generated VMT per employee exceeds the existing City of Blythe VMT per employee.

The City of Blythe allows Cannabis Cultivation and Processing in Commercial Land Use designated areas. Although the project is considered a commercial land use, according to industry standards, Light Industrial traffic estimates are appropriate to utilize for this analysis. Commercial land uses would include retail/customer traffic, which the project does not have. Therefore, estimates associated with commercial land uses would be well above what is applicable to the proposed project's operations.

RIVTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. RIVTAM is a travel forecasting model that represents a sub- area (Riverside County) of the Southern California Association of Governments (SCAG) regional traffic model. RIVTAM was designed to provide a greater level of detail and sensitivity in the Riverside County area as compared to the regional SCAG model. County Guidelines

identifies RIVTAM as the appropriate tool for conducting VMT modeling for land use projects within the County of Riverside.

Project generated VMT has been calculated using the most current version of RIVTAM. Adjustments in socio-economic data (SED) (i.e., estimated number of project employees) were made to the Traffic Analysis Zone (TAZ) in which the project resides. An estimate of 1 employee per thousand square feet was determined in coordination with the project applicant based on industry standards and the project's planned operations. The TAZ in which the project resides has been utilized to isolate vehicle trips to/from the project. The project resides in TAZ 4922, which is shown to generate 37.4 VMT per Employee.

Table 4.12-11 summarizes the Employment Density Factors.

Table 4.12-11 Employment Density Factors

Land Use	Quantity	Employment Factor	Project Employees
Light Industrial	534,000 SF	1 emp/1,000 SF	534

Adjustments to employment for the Project's TAZ were made to the RIVTAM base year model. Project-generated home-based work VMT was then calculated following the VMT calculation procedures identified in Appendix E of the County Guidelines. The home-based work VMT value is then normalized by dividing by the total of Project employees. As shown in **Table 4.12-12** the Project generated VMT per employee is 26.47.

Table 4.12-12 Project Service Population

Category	Estimated Service Population
Home-based Work VMT	14,136
Employment	534
VMT per Employee	26.47

Project Generated VMT Assessment

A project would result in a significant project generated VMT impact if the base model year project generated VMT per employee exceeds the existing City of Blythe VMT per employee. **Table 4.12-13** provides a comparison of the project generated VMT per employee as compared to the City total.

Table 4.12-13 Project VMT per Employee Comparison

Category	Baseline
City Threshold	33.22
Project VMT per Employee	26.47
Percent Change	-20%
Potentially Significant?	**No**

The project VMT per employee is 26.47 which is below the City threshold of 33.22 by 6.75, or approximately 20%.

The rigorous assessment determined that Project generated VMT per employee is below the City threshold and is therefore found to be less than significant relative to VMT impacts.

c. Increase hazards due to a geometric design feature or incompatible uses

The project will be developed in accordance with the City's design guidelines and will not create a substantial increase in hazards due to a design feature. The project's access points will be located with adequate sight distances, which will be required to meet City standards. The installation of site and Landscape improvements will be required to avoid interfering with adequate sight distances. Project plans will be reviewed for any sight distance conflicts and will require approval by the City.

The internal circulation system would provide adequate fire department access. Final layout and site access design shall be reviewed and approved by the City Traffic Engineer as well as the Fire Department to ensure compliance with their established standards.

As a Condition of Approval, Traffic Control Plans will be required to be implemented as a Standard Condition during construction activities. These plans will substantially reduce or avoid any potential impacts that may arise due to conflicts with construction traffic, consistent with City standards. This plan will be especially important during offsite improvements in the Hobsonway ROW.

The project is not anticipated to increase hazards due to geometric design feature or incompatible uses, following implementation of the mitigation measures, as well as the review and approval process at the City of Blythe. Impacts will be less than significant.

d. Result in Inadequate Emergency Access

Regional access to the project site will be provided via Interstate-10, major arterials, arterials and a variety of collector and local roads. The project proposes no changes to the City's roadway system. As mentioned previously, primary project access will be provided on Hobsonway via the Main Access at Intersection 6; emergency access for the project will also be provided by two additional gated access points on Hobsonway. Internally, all rights of way will be 24 feet wide *[to comply with City/Fire department requirements to ensure emergency vehicle access and turnaround radius.]*

All project access points onto public streets will be gated. For gated projects, the Fire Department requires the installation of a Knox-Box Rapid Entry System or similar device to facilitate emergency access by fire fighters and other emergency first responders.

Prior to construction, both the Fire Department and Police Department will review the project site plan to ensure safety measures are addressed, including emergency access, consistent with Fire Department

and Police Department standards. The project is not anticipated to result in inadequate emergency access. Therefore, impacts are less than significant relative to inadequate emergency access.

4.12.5 Cumulative Impacts

Cumulative Developments: Other realistically anticipated development projects which are either approved or being processed concurrently in the study area are incorporated as part of a cumulative analysis scenario. A cumulative project list was established for this analysis through consultation with planning and engineering staff from the City of Blythe. A summary of cumulative development projects and their proposed land uses are shown on **Table 4.12-14**.

If applicable, the traffic generated by individual cumulative projects was manually added to the Cumulative 5 Year (2026) and General Plan Buildout (2040) forecasts to make certain that traffic generated by the listed cumulative development projects are included as part of the background traffic.

Table 4.12-14 Cumulative Development Land Use Summary

ID	Project Name	Land Use *(note 1)*	Quantity	Units *(note 2)*
1	Blythe Green Complex (NWC Intake Bl./Av.)	Manufacturing	54	EMP
		Distribution Center	15	EMP
		Administration/Office Bldg.	6.5	TSF
		Cultivation	592	EMP
		Marijuana Dispensary	5	TSF
2	Palo Verde Campus (SEC Intake Bl./14th Av.)	Manufacturing	54	EMP
		Administration/Office Bldg.	5.0	TSF
		Cultivation	768	EMP
3	Casablanca Farms (SEC Intake Bl./Hobsonway)	Administration/Office Bldg.	5.0	TSF
		Cultivation	24	EMP
4	Casa Bella (East of Lovekin Bl. & N south of 10th Av.)	SFDR	130	DU
5	Blythe Ag-Gro I & II (2881 W. Hobsonway)	Administration/Office Bldg.	2.5	TSF
		Cultivation	24	EMP
6	Desert Comm Network (1790 W. Hobsonway)	Administration/Office Bldg.	1.0	TSF
		Cultivation	70	EMP
7	Desert Comm Network (SEC of Defrain Bl./Hobsonway)	Administration/Office Bldg.	5.0	TSF
		Cultivation	60	EMP

1. *SFDR = Single Family Residential*
2. *DU = Dwelling Units; TSF = Thousand Square Feet; Emp = Employees*

Horizon Year General Plan buildout (2040) Without Project Conditions

Cumulative 5-year (2040) Conditions

Table 4.12-15 indicates that without the project, 2 study area intersections will be impacted at General Plan Buildout. These intersections are #3 Neighbours /I-10WB Ramp and #4 Neighbours Boulevard/I-10 EB Ramp.

Table 4.12-15 Intersection Analysis for General Plan (2040) Without Project Conditions

#	Intersection	Traffic Control *(Note 3)*	Intersection Approach Lanes *(Note 1)*				Delay (Secs) *(Note 2)*		Level of Service *(Note 2)*	
			Northbound	Southbound	Eastbound	Westbound	AM	PM	AM	PM
			L/T/R	L/T/R	L/T/R	L/T/R				
1	Defrain Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	19.0	21.3	C	C
2	Neighbours Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	13.7	14.8	B	B
3	Neighbours Bl./ I-10 WB Ramps	CSS	0.5/0.5/0	0/1/1	0/0/0	0.5/0.5/1	**>80**	**>80**	**F**	**F**
	-With Improvements	**TS**	**1**/1/0	0/1/1	0/0/0	**1**/1/0	47.2	39.5	D	D
4	Neighbours Bl./ I-10 EB Ramps	CSS	0/1/1	0.5/0.5/0	0.5/0.5/1	0/0/0	**>80**	**>80**	**F**	**F**
	-With Improvements	**TS**	0/1/1	**1**/1/0	0.5/0.5/1	0/0/0	18.8	38.8	B	D
5	Lovekin Bl./ Hobsonway	TS	1/2/0	1/2/0	1/2/0	1/2/0	33.8	42.6	C	D
6	Project Dwy / Hobsonway		Intersection Does Not Exist							

1. *When a right turn is designated the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient for right turning vehicles to travel outside the through lanes.*
   *L = Left; T = Through; R = Right; 1! = Shared Left/Thru/Right Lane; 0.5=Shared Lane; **1** = Lane Improvement*
2. *Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.*
   For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.
   Delay and level of service is calculated using Synchro 10.1 software
3. *TS = Traffic Signal; CSS = Cross-street Stop*

Horizon Year General Plan Buildout (2040) with Project Conditions

Table 4.12-16 shows the traffic conditions at General Plan buildout, with the addition of the proposed project. The addition of the project does not require additional improvements beyond those identified in the General Plan. These intersections are the Neighbours Blvd/I-10 EB Ramp and Neighbours Blvd 1-10 WB Ramp.

Table 4.12-16 Intersection Analysis for General Plan (2040) With Project Conditions

#	Intersection	Traffic Control *(Note 3)*	Intersection Approach Lanes *(Note 1)*				Delay (Secs) *(Note 2)*		Level of Service *(Note 2)*	
			Northbound	Southbound	Eastbound	Westbound	AM	PM	AM	PM
			L/T/R	L/T/R	L/T/R	L/T/R				
1	Defrain Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	28.3	33.7	D	D
2	Neighbours Bl. / Hobsonway	CSS	0/1!/0	0/1!/0	0/1!/0	0/1!/0	15.5	23.6	C	C
3	Neighbours Bl./ I-10 WB Ramp	CSS	0.5/0.5/0	0/1/1	0/0/0	0.5/0.5/1	**>80**	**>80**	**F**	**F**
	-With Improvements	**TS**	**1**/1/0	0/1/1	0/0/0	**1**/1/0	41.3	38.1	D	D
4	Neighbours Bl./ I-10 EB Ramp	CSS	0/1/1	0.5/0.5/0	0.5/0.5/1	0/0/0	**>80**	**>80**	**F**	**F**
	-With Improvements	**TS**	0/1/1	**1**/1/0	0.5/0.5/1	0/0/0	21.2	44.3	C	D
5	Lovekin Bl./ Hobsonway	TS	1/2/0	1/2/0	1/2/0	1/2/0	36.2	43.7	D	D
6	Project Dwy / Hobsonway	**CSS**	0/**1!**/0	0/0/0	0/1/0	0.5/0.5/0	18.2	34.7	C	D

1. *When a right turn is designated the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient for right turning vehicles to travel outside the through lanes.*

L = Left; T = Through; R = Right; 1! = Shared Left/Thru/Right Lane; 0.5=Shared Lane

2. *Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control.*

For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown.

Delay and level of service is calculated using Synchro 10.1 software

3. *TS = Traffic Signal; CSS = Cross-street Stop*

2040 General Plan Buildout Project Responsibilities

The project will be responsible for the installation of the main access at the Project Driveway and Hobsonway (#6 Main Access,) the two emergency access points, improvements to the adjacent roadway included in engineering plans and fair share contributions to offsite improvements pursuant to the transportation component of the City's DIF. Additionally, the project will participate in the Traffic Uniform Mitigation Fee (TUMF) program prior to issuance of building permits.

For the deficient study intersections, improvements are needed in 2040 under both with or without project conditions. The project will be required to contribute to these General Plan programmed improvements on a fair share basis, as shown in **Table 4.12-15,** through payment of the City's DIF.

Fair Share contributions: In cases where the TS identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to total future traffic:

Project Fair Share % = Project Traffic / (General Plan 2040 Total Traffic – Existing Traffic)

Table 4.12-17 illustrates the project's 2040 fair share contribution for 2 area roadway improvements. These fair share percentages represent impacts based on 2040 project traffic volumes (GP buildout).

Table 4.12-17 Project Fair Share Contributions

Intersection #	Intersection	Fair Share Contribution (Phase 1)
3	Neighbours Bl. / 1-10 WB Ramp • AM Peak Hour • PM Peak Hour	 14% 18%
4	Neighbours Bl. / 1-10 EB Ramp • AM Peak Hour • PM Peak Hour	 8% 6%

As demonstrated above, build out of the project, in conjunction with General Plan (2040) build out conditions will result in potential impacts, without improvements. However, with the implementation of project improvements, GP-programmed improvements, and conditions of approval, cumulative transportation impacts will be reduced to less than significant levels.

4.12.6 Mitigation Measures

None. There are no potentially significant adverse environmental effects related to traffic as defined in CEQA. However, for compliance with City standards, the project will be required to include the following Project Design Features:

The traffic analysis was based on the following assumptions for improvements, which must be made conditions of approval for the project, in order to assure that impacts remain less than significant. Site access improvements and project driveway configurations are anticipated to be in place for project conditions:

Hobsonway – Hobsonway is an east-west oriented roadway located along the projects' northern boundary. Construction of Hobsonway from the Project's westerly boundary to the project's easterly boundary at its ultimate half-section width shall be as a Major Arterial Collector (96-foot right-of-way) in compliance with the applicable City of Blythe standards.

Project Driveway / Hobsonway (#6) – Install a stop control on the northbound approach and construct one shared left/right turn lane as illustrated on **Exhibit 4.12-2**.

On-site traffic signing and striping will be implemented in conjunction with detailed construction plans for the project site.

Sight distance at the primary access point will be reviewed with respect to standard Caltrans and City of Blythe sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

4.12.7 Level of Significance After Mitigation

With the imposition of the project design features and conditions of approval including City review and approval of all street improvement plans, impacts will be reduced to less than significant levels. Implementation of the project will result in VMT per employee below the City threshold and will not increase VMT at the regional level.

4.12.8 Resources

1. *Edelweiss Sustainable Farms Traffic Study (TS),* prepared by Urban Crossroads, August 2021, January 26, 2022, Revised February 17, 2022
2. *Edelweiss Sustainable Farms Vehicle Miles Traveled (VMT) Analysis,* prepared by Urban Crossroads, August 2021

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4.13 Tribal Cultural Resources

4.13.1 Introduction

This section discusses the Tribal Cultural Resources that may be present in the project site and assess potential impacts on these resources from future growth and development associated with the implementation of the proposed project. Descriptions and analysis in this section are based on information contained in the *Historical/Archaeological Resources Survey Report* prepared by CRM Tech, Inc. (January 2022), and the City of Blythe *General Plan Open Space and Conservation Element*, and the Native American Tribal Consultation undertaken by the City of Blythe, as required under Assembly Bill 52 (AB52) and Senate Bill 18 (SB18). This section discusses the cultural resources that may be present in the project site or in the vicinity and assesses impacts on these resources from the development associated with implementation of the project. The cultural resources report is included in the Appendices of this Draft EIR (**Appendix E,** *Cultural Report*). Correspondence regarding Tribal consultation under AB52 and SB18 is included in **Appendix E**.

4.13.2 Existing Conditions

Current Natural Setting

The project area is located on the western outskirts of the City of Blythe, which lies in the heart of the Palo Verde Valley, a narrow inland valley along the Colorado River and the California-Arizona border that is known for its agricultural production. It is bounded by Interstate Highway 10 on the south, Hobson Way on the north, and C Canal on the east. An unpaved access road and a row of trees separate the property from the adjacent parcel to the west. The nearby area to the west of the project location is dominated by agricultural pursuits, and the land uses gradually shifts to suburban and commercial to the east.

The project area consists entirely of leveled and irrigated farmland that is currently used to grow alfalfa. The ground surface has been extensively disturbed by past grade adjustment, ongoing agricultural use and, along the edges, the construction of the adjacent canal and roadways. Elevations on the property range approximately between 260 to 265 feet above mean sea level. The surface soils are composed primarily of fine silty and clayey sand. In addition to the alfalfa crops in the field, the vegetation observed in the project area also includes tumbleweed and other small grasses and shrubs along the perimeters.

Ethnohistoric and Historic Context

The native population along the Lower Colorado River prior to European contact belonged to a broad language group known as the Yuman peoples. The Palo Verde Valley area was part of the traditional

homeland of the Halchidhoma and/or Kohuana, two of the Yuman subgroups, but was later also utilized by Chemehuevi groups. To the north of the Palo Verde Valley, around present-day Parker, lived the Mohaves, and to the south, around Yuma, were the Quechans. Archaeologically, the antiquity of the Yuman Tribes remains in question, although most anthropologists agree that they have occupied the Colorado River region for at least 1,000 years. See **Section 4.4, *Cultural Resources,*** for a full discussion of the ethnohistoric and historic context of the City.

4.13.3 Regulatory Setting

See **Section 4.4, *Cultural Resources,*** for a full discussion of the federal and State regulations related to Tribal cultural resources.

State

Senate Bill 18

As of March 1, 2005, California Government Codes 65092; 65351; 65352; 65352.3; 65352.4; 65352.5; and 65560, formerly known as Senate Bill 18 (SB 18), requires that cities and counties contact and consult with Native American Tribes prior to amending or adopting any general plan or specific plan, or designating lands as open space. The purpose of SB 18 is to involve Native Americans at the onset of the planning process to allow for considerations concerning the protection of traditional Tribal cultural places in the context of broad local land use policy prior to individual site-specific, project level land use decisions. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the Tribe. At least 45 days before a local government adopts or substantially amends a general plan or specific plan, the local government must refer the proposed action to any Native American Tribes identified by NAHC, for review and comment.

California Assembly Bill 52 (AB 52)

In addition to Native American Consultation that occurs as part of the Cultural Resource Assessment, AB 52, which went into effect on July 1, 2015 requires a lead agency to consider a project's impacts on Tribal Cultural Resources ("TCR"). TCR as defined in Public Resources Code § 21074 are as follows:

(a) "Tribal cultural resources" are either of the following:
  (1) Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following:
    (A) Included or determined to be eligible for inclusion in the California Register of Historical Resources.
    (B) Included in a local register of historical resources as defined in subdivision (k) of Section 5020.1.

(2) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision of Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American Tribe.

(b) A cultural landscape that meets the criteria of subdivision (a) is a Tribal cultural resource to the extent that the landscape is geographically defined in terms of the size and scope of the landscape.

(c) A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a "nonunique archaeological resource" as defined in subdivision (h) of Section 21083.2 may also be a Tribal cultural resource if it conforms with the criteria of subdivision (a).

Section 1 (a)(9) of AB 52 establishes that "a substantial adverse change to a Tribal cultural resource has a significant effect on the environment." Effects on Tribal cultural resources should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a Tribal cultural resource or alternatives that would avoid significant impacts to a Tribal cultural resource." Further, if a California Native American Tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to Tribal cultural resources, the consultation shall include those topics (PRC Section 21080.3.2[a]). The environmental document and the mitigation monitoring and reporting program (where applicable) shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

Under AB 52, the CEQA Lead Agency is required to begin consultation with a California Native American Tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. Tribal consultation can be initiated once a project application is deemed complete. Once the Lead Agency has contacted necessary Tribal governments, Tribes have 30 days to respond to comments or request for consultation. "Consultation" is the meaningful and timely process of seeking, discussing, and considering carefully the views of others, in a manner that is cognizant of all parties' cultural values and, where feasible, seeking agreement. Consultation between government agencies and Native American Tribes must be conducted in a way that is mutually respectful of each party's sovereignty. Consultation must also recognize the Tribes' potential needs for confidentiality with respect to places that have traditional Tribal cultural significance. Consultation concludes when either: the parties agree on measures to mitigate or avoid significant impacts to TCRs or a party, in good faith and after reasonable effort, concludes that a mutual agreement cannot be reached.

4.13.4 Project Impact Analysis

Thresholds of Significance

Upon development of the proposed project, Tribal Cultural Resources within or near the project site could potentially be impacted. The thresholds analyzed in this section are derived from Appendix G of the CEQA Guidelines and are used to determine the level of potential effect. The significance determination is based on the recommended criteria set forth in Section 15064.5 of the CEQA Guidelines. For analysis purposes, development of the proposed project would have a significant effect on Tribal cultural resources if it is determined that the project will:

a. Cause a substantial adverse change in significance of a Tribal cultural resource defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American Tribe, and that is:
    i. Listed eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or
    ii. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.

Methodology Native American Participation

On July 7, 2021, CRM Tech submitted a written request to the State of California's Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. In response to CRM Tech's inquiry, the NAHC reported in a letter dated July 26, 2021, that the Sacred Lands File identified no Native American cultural resources within the project area but recommended that local Native American groups be contacted for further information. For that purpose, the NAHC provided a list of potential contacts in the region. Upon receiving the NAHC's reply, CRM TECH sent written requests for comments to all 13 Tribal organizations on the referral list. For some of the Tribes, the designated spokespersons on cultural resources issues were contacted in lieu of the individuals on the referral list, as recommended in the past by the Tribal government staff. The 13 Tribal representatives contacted are listed below:

- Amanda Vance, Chairperson, Augustine Band of Cahuilla Mission Indians
- BobbyRay Esparza, Cultural Coordinator, Cahuilla Band of Indians
- John Gomez, Jr., Cultural Resource Coordinator, Ramona Band of Cahuilla Indians
- Joseph Ontiveros, Tribal Historic Preservation Officer, Soboba Band of Luiseño Indians
- Michael Mirelez, Cultural Resources Coordinator, Cabazon Band of Mission Indians

- Bridget Sandate, Director of the Chemehuevi Cultural Center, Chemehuevi Indian Tribe
- David Harper, Acting Tribal Historic Preservation Officer, Colorado River Indian Tribes
- Linda Otero, Director of the AhaMaKav Cultural Society, Fort Mojave Indian Tribe
- Ray Chapparosa, Chairperson, Los Coyotes Band of Cahuilla and Cupeño Indians
- Ann Brierty, Tribal Historic Preservation Officer, Morongo Band of Mission Indians
- Jill McCormick, Historic Preservation Officer, Quechan Tribe of Fort Yuma Reservation
- Alesia Reed, Cultural Chair, Torres Martinez Desert Cahuilla Indians
- Sara Bliss, Cultural Resources Manager, Twenty-Nine Palms Band of Mission Indians

In an e-mail reply on July 30, 2021, Jill McCormick states that the Quechan Tribe of Fort Yuma Reservation has no comments regarding this project. To date, none of the other 12 Tribes has responded to the requests for comments.

City of Blythe Tribal Consultation under AB 52

The City of Blythe initiated Tribal consultation, as required by AB 52. The consultation period started on October 21, 2021, and ended on January 19, 2022. The City sent letters to ten local Tribal representative that have requested consultation on new development projects. Of the ten letters, only the Agua Caliente Band of Cahuilla responded that the site is not within their Traditional Use Area and deferred to other Tribes in the area (**Appendix E**). No additional responses or requests for consultation were received.

Project Impacts

a.i.-ii. Would the project cause a substantial adverse change in the significance of a Tribal cultural resource that is listed or eligible for listing in the California Register of Historical Resources, or in a local Register of historical resources as defined in Public Resource Code Section 5020.1(k); or a significant Tribal cultural resource pursuant to criteria set forth in subdivision (c) of Public Resource Code Section 5024.1?

Public Resource Code 21074 identifies “Tribal Cultural Resources” as “sites, features, places, cultural landscapes, sacred places, and objects with culture value to California Native American Tribe” and that are either included or determined to be eligible for inclusion on the national, State, or local register of historic resources or that are determined by the lead agency, in its discretion, to be significant when taking into consideration the significance of the resource to a California Native American Tribe.

The project archaeologist determined that no potential historical resources were identified within the project area throughout the course of the study. EIC records indicate that two linear surveys were previously completed along the eastern and southern project boundaries, focusing on the rights-of-way of C Canal and Interstate 10. C Canal is outside but adjacent to the current project boundary. The canal

was recorded into the California Historical Resources Inventory as Site 33-011044. No further information was provided in the site records or the accompanying report, nor was Site 33-011044 evaluated for historic significance. As a working component of the modern irrigation infrastructure, however, the nondescript earthen canal demonstrates no distinctively historical characteristics due to frequent upgrading and maintenance in recent decades and lack of sufficient historical integrity. No other cultural resources were previously recorded within the scope of the records search.

The Sacred Lands File search by the NAHC produced positive results for Native American cultural resources in the general vicinity, but none of the local Tribes contacted during this study identified any specific site or issue of concern within or adjacent to the project boundaries. The likelihood of encountering archaeological TCRs is greatest for projects that include grading and/or excavation of areas on which past grading and/or excavation activities have been minimal. The project site has been used for agricultural production since at least the 1950s. Much of the ground surface in the project area was obscured by alfalfa crops at the time of survey, but in light of the extensive ground disturbance that has occurred on the property in the past, ground visibility is not considered a significant hinderance to the survey efforts for the project's Historical and Archaeological Resources report. Based on these findings, and in light of the criteria listed above, the project archaeologist concludes that no "historical resources" exist within the project area. Although the project's potential to impact significant Tribal Cultural resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. In that event, the project Applicant and its contractors would be required to adhere to all City and State procedures, including CEQA Guidelines Section 15064.5, regarding stoppage of work, handling of uncovered resources, and notification of proper authorities to ensure that the project would not have an adverse effect on such resources. Since these practices are enforced by the City and State, they are not considered mitigation measures, and will be implemented as regulatory requirements (see **Section 4.4, *Cultural Resources***, for additional discussion). Therefore, with the implementation of the regulatory requirements, impacts to Tribal Cultural resources are expected to be less than significant.

4.13.5 Cumulative Impacts

Build out of the General Plan area, including lands of the proposed project, has the potential to cumulatively impact Tribal cultural resources. Development within the project site, however, does not have the potential to significantly impact cultural resources because of the extensive site disturbance and past and current agricultural operations. Additionally, no resources were identified on or near the project site. Development of other projects within the City and surrounding area would also be subject to the same standard requirements, mitigation measures (as applicable), and compliance with federal and State law as the proposed project. Although continued development has the potential to cumulatively impact these resources, the continued application of City policies, General Plan policies and

programs, federal and State law all will assure that cumulative impacts associated with Tribal cultural resources will be less than significant.

4.13.6 Mitigation Measures

Mitigation Measures are not required.

4.13.7 Level of Significance After Mitigation

The topic of Tribal Cultural Resources does not involve significant impacts requiring mitigation.

4.13.8 Resources

1. California Native American Heritage Commission http://nahc.ca.gov/
2. Historical/Archaeological Resources Survey Report Cannabis Cultivation Project, CRM Tech, January 2022.

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4.14 Utilities and Service Systems

4.14.1 Introduction

This section addresses the existing utilities and service systems for the proposed Edelweiss Sustainable Farms project ("project"). This section also addresses the potential for the proposed project to impact the water supply, wastewater demand, solid waste, electricity, natural gas, and telecommunication facilities of the project site and surroundings, and identifies and analyzes environmental impacts of the project's demand on these facilities. This section is based on the information contained in *the Blythe 2020 Urban Water Management Plan*, the *Edelweiss Sustainable Farms Preliminary Hydrology Report* (**Appendix K**), the Engineering Submittal Package Submittal from West Coast Electric (**Appendix F.1**), the Southern California Edison Will Serve Letter (**Appendix F.2**), and *Chapter 5, Parks and Recreation Element,* from the Blythe General Plan, as well as public documents published by the Palo Verde Irrigation District (PVID). Sources used in the preparation of this section are identified in **Chapter 8.0, *References,*** at the end of this Draft EIR.

4.14.2 Existing Conditions

Domestic Water Service

Since its founding in 1916, the City has owned and operated a water and sewer system that has served the City's developed core. Within recent years, however, the City has taken ownership of additional water systems that served other developed areas outside of the City's main developed areas outside of the City's main developed core. In 1995, the City annexed the Mesa Ranch and Hidden Beaches water system, both of which are small water system serving areas located along the banks of the Colorado River. In 1999, the City annexed the East Blyth County Water District, which served portions of east Blythe. The most recent annexation occurred in 2000-2001 when the City annexed the Blythe Power Plant area near the Blythe airport.

As a result of the annexations, the City of Blythe Water System can be categorized into three parts:

- City of Blythe Proper Water System (City "core" including East Blythe and the Power Plant)
- Mesa Ranch Water System
- Hidden Beach Water System

Each of the above listed water systems are independent systems in the sense that the pipeline networks are not inter-connected.

The Palo Verde Irrigation District (PVID) and the City of Blythe began supplying potable drinking water to its customers between the late 1800s and early 1900s when Colorado River water and subsequently

groundwater, became available to the region. The Palo Verde Mesa and Palo Verde Valley Groundwater Basins are the sole source of water to the City of Blythe.

Although PVID owns the highest priority rights to the Colorado River of any agency in California and maintains canals that run through the City's limits, the City of Blythe does not have access to the Colorado River water. The diverted canal water conveyed through the City of Blythe and Palo Verde Valley primarily for irrigation purposes is managed by PVID as a separate entity and is not considered a source of drinking water. Instead, the City relies solely on local groundwater with aquifer depths of up to 800 feet or greater. The storage capacity of local groundwater resources is estimated at 5 million acre-feet (MAF). Groundwater recharge is provided by the Colorado River and unlined drainage canals via seepage. The Department of Water Resources (DWR) estimates that up to 500,000 acre-feet per year (AFY) seep into the basin from unlined canals.

Stormwater System

The project is located in the East Colorado River Basin Planning Area which includes multiple watersheds encompassing the easternmost portion of Riverside, San Bernardino, and Imperial Counties, and the Colorado River Basin Region.

This planning area is approximately 200 miles long (trending north-to-south), with a maximum east-west width of approximately 40 miles, characterized by desert valleys and low mountains that are generally less than 4,000 feet above sea level. Average precipitation is estimated at 3 to 4 inches annually, with about half of it occurring as summer thunderstorms, and the other half occur generally in the form of weak winter storms. In this planning area, ephemeral flows resulting from storm events primarily drain toward the Colorado River. Perennial flows, occurring throughout the year, are limited to the Colorado River and associated irrigation drains and canals.

At the regional level, the project is located within the Palo Verde Valley Watershed, also identified by the USGS as Hydrologic Unit (HU) 1503010408. The Palo Verde Valley Watershed encompasses approximately 388 square miles, including a majority of Blythe and the Palo Verde Irrigation District (PVID). Hydrologically, it includes naturally occurring tributary portions of Big Maria Mountains on the north, McCoy Mountains and Palo Verde Mesa on the west, and Mule Mountains on the southwest. The eastern low-lying portion of this watershed, where the project is located, is the Palo Verde Valley floor, situated east of the Palo Verde Mesa and west of the Colorado River. Rather than sloping directly east toward the Colorado River, the Palo Verde Valley floor gently descends in a southwesterly direction, roughly parallel to the river route. Drainage across the valley floor is largely influenced by the historic ground surface leveling and other modifications from the predominant agricultural uses and is related with the PVID engineered irrigation delivery channels/canals conveying diverted Colorado River water from the Palo Verde Diversion Dam, located approximately 10 miles northeast of the project, to the agricultural properties in the valley region. See **Section 4.9, *Hydrology and Water Quality***, of this Draft EIR for an in-depth discussion of existing flood control conditions, both locally and at the project site.

Wastewater Service System

The City collects, treats, and disposes of wastewater generated in its service area at the City owned Waste Water Treatment Plant (WWTP), located at 15901 South Broadway and 16th Avenue. The City currently maintains over 3,000 wastewater connections which connect various properties within the City's service area. Sewer laterals connect to a sewer pipeline network, consisting of approximately 75-miles of pipes ranging in size from 6-inches to 30-inches in diameter. This system carries wastewater flows to the City's WWTP.

The WWTP serves as the only wastewater treatment facility for the City. It receives raw wastewater from the interceptors as well as raw stormwater from the City's storm drains and produces secondary level treated wastewater. The overall treatment process provides preliminary, primary and secondary treatment before being disinfected and discharged to the percolation ponds or sludge drying beds.

Currently, no recycled water infrastructure exists within the City's service area. The WWTP provides only secondary treatment, and the treated wastewater does not meet the stringent California Title 22 standards. Further, the City does not use any recycled water produced by any other agencies. Thus, no wastewater is recycled within the City's service boundary.

Currently, the WWTP treats an average volume of roughly 1.2 million gallons per day (MGD). The treated volume includes wastewater but can occasionally include stormwater flows. Per the City Operations Staff, the WWTP has a dry weather capacity of 5.3 MGD and a wet weather capacity of 2.4 MGD. The average 2020 flows for wastewater at the City's WWTP were 1,562 Acre-Feet (AF) or 509 million gallons (MG). On a daily average, wastewater flows are typically measured at 1.2 MGD, which is less than half of the WWTPs capacity of 5.3 MGD.

Solid Waste

Riverside County Department of Waste Resources (RCDWR) is responsible for the landfilling of non-hazardous county waste. In this effort the Department operates five landfills, has a contract agreement for waste disposal with an additional private landfill and administers several transfer station leases. The RCDWR Planning Section ensures that the County's planned and proposed waste management activities and projects are in compliance with applicable federal, State and local land use and environmental laws, regulations, and ordinances.

Solid waste disposal and recycling services for the City of Blythe are provided by CR&R. This service provider offers its customers a wide range of services for residential and commercial businesses, construction-related activities and special events. Solid waste and recycling collected from the proposed project will be hauled to the Blythe Sanitary Landfill. Additional information on the Blythe landfill is provided below:

- **Blythe Sanitary Landfill** is in the City of Blythe at 1000 Midland Road. The landfill is owned and operated by Riverside County. The landfill property encompasses approximately 335 acres. Of

the 335 -acre landfill permit area, approximately 78 acres are permitted for waste disposal. The landfill is currently permitted to receive 400 tons per day (tpd) of solid waste for disposal. The site has an estimated total disposal capacity of approximately 6,229,770 cubic yards, and a total remaining capacity of approximately 3,834,470 cubic yards. The current landfill remaining disposal capacity is estimated to last, at a minimum, until approximately 2047. Landfill expansion potential exists at Blythe Sanitary Landfill site.

As part of its long-range planning and management activities, the RCDWR ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal. The 15-year projection of disposal capacity is prepared each year as part of the annual reporting requirements for the Countywide Integrated Waste Management Plan.

Electricity

In Blythe, electric power service is provided by Southern California Edison (SCE). SCE is one of the nation's largest electric utilities, providing electricity service to more than 15 million people in a 50,000 square-mile area of central, coastal and Southern California. SCE serves residents in Fresno, Imperial, Inyo, Kern, Kings, Los Angeles, Madera, Mono, Orange, Riverside, San Bernardino, Santa Barbara, Tuolumne, Tulare and Ventura Counties. According to the CEC Energy Consumption Database, approximately 104,406 GWh was consumed in SCE's service area in 2018*.*

The project site is not currently served by electricity, due to its vacant and undeveloped condition.

Natural Gas

Natural gas is provided to the City of Blythe, by the Southern California Gas Company (SoCalGas). SoCalGas is the principal distributor of natural gas in Southern California, serving residential, commercial, and industrial markets. SoCalGas has 21.4 million customers in more than 500 communities encompassing approximately 20,000 square miles throughout Central and Southern California, from the City of Visalia to the US-Mexico border.

Currently, natural gas is not provided to the site and will not be used for this project.

Telecommunications

As telephone service has become less regulated and technology has improved, a number of communication alternatives have become available to the public, including cellular, internet, fiber optic, and cable-based services. As the City of Blythe continues to develop, it is expected that a number of new technologies will become available to assure adequate and effective communication and data transfer for the City's residents and businesses.

The project property is not currently served by telecommunication facilities, but the project is located within the service area of Frontier Communications.

4.14.3 Regulatory Setting

Federal

Clean Water Act and Safe Drinking Water Act

The Clean Water Act (CWA) was established in 1972 as the basic structure for regulating discharges of pollutants into the waters of the United States and regulating quality standards for surface waters. Under the CWA, the Environmental Protection Agency (EPA) has implemented pollution control programs such as setting wastewater standards for industries. The EPA has also developed national water quality criteria recommendations for pollutants in surface waters.

It is unlawful under the CWA to discharge any pollutant from a point source, which is a discrete conveyance such as pipes or man-made ditches, into navigable waters unless a permit is obtained. The National Pollutant Discharge Elimination System (NPDES) permit program controls discharges. Industrial, municipal, and other facilities must obtain permits if their discharges go directly to surface waters. Compliance monitoring under the NPDES Program encompasses a range of techniques in order to address the most significant problems and to promote compliance among the regulated community.

The Safe Drinking Water Act (SDWA) was originally passed by Congress in 1974 to protect public health by regulating the nation's public drinking water supply. SDWA authorizes the EPA to set national health-based standards for drinking water to protect against both naturally-occurring and man-made contaminants that may be found in drinking water. The U.S. EPA, states, and water systems then work together to make sure that these standards are met (EPA 2020).

National Flood Insurance Program

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. As mandated by the National Flood Insurance Act of 1968 and the Flood Disaster Protection Act of 1973, FEMA administers the National Flood Insurance Program (NFIP) to provide subsidized federal flood insurance to residents of communities where future floodplain development is regulated. FEMA has developed FIRMS to determine the need for and availability of federal flood insurance. FIRM maps rely on a variety of flood risk information based on historic, meteorological, hydrologic and hydraulic data, as well as existing development, open space and topographic conditions within an area. FEMA mapping also incorporates the results of engineering studies to delineate Special Flood Hazard Areas (SFHAs), which are considered at higher risk of inundation and flood-related hazards.

Resource Conservation and Recovery Act (RCRA)

This law was enacted in 1976 and is the principal federal law governing the disposal of solid waste and hazardous waste. The U.S. Environmental Protection Agency (U.S. EPA) oversees waste management

regulation pursuant to Title 40 of the Code of Federal Regulations. Under RCRA, however, states are authorized to carry out many of the functions of the federal law through their own hazardous waste programs and laws, as long as they are at least as stringent (or more so) than the federal regulations. Thus, CalRecycle manages the State of California's solid waste and hazardous materials programs pursuant to U.S. EPA approval.

State

California Water Code

Requirements for the preparation of a Water Supply Assessment (WSA) are set forth in Senate Bill 610 (SB 610), which was enacted in 2001 and became effective January 1, 2002. SB 610 amended Section 21151.9 of the Public Resources Code. It requires cities and counties and other CEQA lead agencies to request specific information on water supplies from the Public Water System (PWS) that would serve any project that is subject to CEQA and is defined as a "Project" in Water Code Section 10912. This information is to be incorporated into the environmental review documents prepared pursuant to CEQA.

The Water Code requires a WSA be prepared for any project that consists of one or more of the following:

- A proposed residential development of more than 500 dwelling units
- A proposed shopping center or business establishment employing more than 1,000 persons or having more than 500,000 square feet of floor space
- A proposed commercial office building employing more than 1,000 persons or having more than 250,000 square feet of floor space
- A proposed hotel or motel, or both, having more than 500 rooms
- A proposed industrial, manufacturing, or processing plant, or industrial park planned to house more than 1,000 persons, occupying more than 40 acres of land, or having more than 650,000 square feet of floor area
- A mixed-use project that includes one or more of the projects specified above
- A project that would demand an amount of water equivalent to, or greater than, the amount of water required by a 500-dwelling unit project
- For public water systems with fewer than 5,000 service connections, a project that meets the following criteria: any proposed residential, business, commercial, hotel or motel, or industrial development that would account for an increase of 10 percent or more in the number of the public water system's existing service connections, or a mixed-use project that would demand an amount of water equivalent to, or greater than, the amount of water required by residential development that would represent an increase of 10 percent or more in the number of the public water system's existing service connections.

California Water Boards

The California Water Board consists of the State Water Resources Control Board and the Regional Water Quality Control Board. Together they work to preserve, protect, enhance, and restore water quality. The State Water Board sets statewide water quality standards, issues statewide general permits, conducts statewide surface and groundwater monitoring and assessment, and issues orders for cleaning up contaminated sites. The State and Regional Water Boards also work with federal, State, and local agencies, as well as other environmental agencies to ensure a coordinated approach to protecting human health and the environment.

There are nine regional water quality control boards statewide. The nine Regional Boards are semi-autonomous and are comprised of seven part-time Board members appointed by the Governor and confirmed by the Senate. Regional boundaries are based on watersheds and water quality requirements are based on the unique differences in climate, topography, geology, and hydrology for each watershed. Each Regional Board makes critical water quality decisions for its region, including setting standards, issuing waste discharge requirements, determining compliance with those requirements, and taking appropriate enforcement actions. The project site is located in the Colorado River Basin Region (Region 7).

Urban Water Management Plan

In 1983, the Urban Water Management Planning Act (UWMPA) was established by Assembly Bill 797, and passage of this law recognized that water is a limited resource and that efficient water use and conservation would be actively pursued throughout the State of California. The UWMPA requires that water suppliers providing water for municipal purposes either directly or indirectly to more than 3,000 customers, or supplying more than 3,000 acre-feet of water annually, prepare and submit an Urban Water Management Plan (UWMP) to the California Department of Water Resources (DWR) every five years.

UWMPs are considered to be foundation documents and a source of information for Water Supply Assessments and Written Verifications of Water Supply. In addition, an UWMP may serve as a long-range planning document for water supply, a source of data for development of a regional water plan, and a source document for cities and counties as they prepare their General Plans. These planning documents are linked, and their accuracy and usefulness are interdependent. One of the primary objectives of the UWMP is the assessment of demands and supplies over a 20-year or a 25-year planning horizon under normal rainfall conditions as well as under various drought conditions.

CalRecycle

CalRecycle is the term the State of California uses for its Department of Resources Recycling and Recovery, formerly known as the California Integrated Waste Management Board (CIWMB). This state agency performs a variety of regulatory functions pursuant to California Code of Regulations (CCR) Title 27 and other regulations. Among other things, CalRecycle set minimum standards for the handling and

disposal of solid waste designed to protect public health and safety, as well as the environment (see CCR Section 20050, for example). It is also the lead agency for implementing the State of California municipal solid waste program deemed adequate by the U.S. EPA for compliance with RCRA (Riv. County EIR No. 521).

California Integrated Waste Management Act (IWMA) (Assembly Bill (AB) 939)

This act was passed by the State Legislature in 1989 to reduce dependence on landfills for the disposal of solid waste and to ensure an effective and coordinated system for the safe management of all solid waste generated within California. With its passage, solid waste management practices were redefined to require California cities and counties to divert disposal of solid waste by 50% by the year 2000. It also required local governments to prepare and implement plans to improve waste resource management by integrating management principles that place importance on first reducing solid waste through source reduction, reuse, recycling and composting before disposal at environmentally safe landfills or via transformation (e.g., regulated incineration of solid waste materials). These plans must also be updated every five years (Riv. County EIR No. 521).

Mandatory Diversion and Recycling, AB 341

Approved in 2011, this act amended the California Public Resources Code (Section 42649 et seq.) to address solid waste diversion (i.e., recycling) targets to decrease the amount of waste going to landfills and thus extend their usable lives. AB 341 requires cities and counties, including Riverside County, to include source reduction, recycling and composting in their integrated waste management plans (IWMP). In addition, under AB 341 counties were required to "divert 50% of all solid waste from landfill disposal or transformation [e.g., incineration] by January 1, 2000, through source reduction, recycling and composting activities." By 2020, the target rises to "not less than 75% of solid waste." (Riv. County EIR No. 521).

California's Energy Efficiency Standards for Residential and Nonresidential Buildings

Located in CCR Title 24, Part 6 and commonly referred to as "Title 24", these energy efficiency standards were established in 1978 in response to a legislative mandate to reduce California's energy consumption. The goal of Title 24 energy standards is the reduction of energy use. The standards are updated periodically to allow consideration and possible incorporation of new energy efficiency technologies and methods. In December 2019, the California Energy Commission (CEC) adopted the 2019 Building and Energy Efficiency Standards effective January 1, 2020. This code requires new homes to include at least 50 percent of kitchen lighting to be LED, compact fluorescent or similar high efficiency fixtures, double pane windows, cool roofs, and other design techniques to reduce heat loss.

Title 24 also includes Part 11, known as California's Green Building Standards (CALGreen). The CALGreen standard took effect in January 2011 and instituted mandatory minimum environmental performance

standards for all ground-up new construction of commercial, low-rise residential, and State-owned buildings, as well as schools and hospitals. The 2019 CALGreen standards became effective on January 1, 2020. Part 11 establishes design and development methods that include environmentally responsible site selection, building design, building siting and development to protect, restore and enhance the environmental quality of the site and respect the integrity of adjacent properties.

Regional and Local

City of Blythe Urban Water Management Plan

To facilitate effective and efficient time management of water supplies, and in compliance with the UWMP ACT and the Water Conservation Act of 2009, the City has prepared the 2020 UWMP. The UWMP includes background information regarding the City's history, water system, and water supplies. The UWMP also analyzes recent water demand and projects future water supply capacity and water demands through 2045. The effects of water quality, drought, and emergencies on the City's water supply reliability are also analyzed.

City of Blythe Water Conservation Ordinance 13.05.010

City of Blythe Water Conservation Ordinance 13.05.010 implements a water conservation program to reduce the per capita quantity of water use in the City. This Ordinance promotes the general welfare by requiring the reasonable and efficient use the City's water resources and preventing the waste or unreasonable use of water, and by implementing water conservation measures that will reduce water consumption within the City's service area

Countywide Integrated Waste Management Plan

The Countywide Integrated Waste Management Plan (CIWMP) was prepared in accordance with the California Integrated Waste Management Act of 1989, Chapter 1095 (AB 939), and is updated every five years. The CIWMP outlines and codifies the goals, policies and programs that the County of Riverside and its cities are implementing to create an integrated and cost-effective waste management system that complies with the provisions of AB 939 and its diversion mandates. The CIWMP's components include the Countywide Summary Plan, the Countywide Siting Element, the Source Reduction and Recycling Element, the Household Hazardous Waste Element and Non-Disposal Facility Element. Each of these Elements address plans for Riverside County and each of its cities. The Riverside Countywide Integrated Waste Management Plan was approved by the California Integrated Waste Management Board in September of 1996 and has subsequently been updated at five-year intervals as required by law (Riv. County EIR No. 521).

4.14.4 Project Impact Analysis

Thresholds of Significance

The following standards and criteria for establishing significance of potential impacts related to utilities and service system were derived from the CEQA Guidelines, Appendix G. Development of the proposed project would have a significant impact related to utilities and service systems if the project would:

a. Require or result in the relocation or construction of new or expanded water, or wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?
b. Have insufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?
c. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has inadequate capacity to serve the project's projected demand in addition to the provider's existing commitments?
d. Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?
e. Fail to comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

Methodology

The potential for project-specific and cumulative impacts associated with utilities and related service systems was assessed based upon available data that considers the project, the project site, and related projects. Impacts on water demand, wastewater, solid waste, energy, and telecommunication facilities that would result from the project were identified by determining the future demand associated with project implementation. A quantitative comparison was used to determine impacts of the project on future demands.

Project Impact

a. Requires or results in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects.

Water

Water Supply

The City of Blythe provides potable water service to the community, including to this site. The project proposes to connect to the existing water lines located in Hobsonway. The proposed water lines will consist of 2-inch, 8-inch, and 12-inch public water lines. Two points of connection will occur at Hobsonway. The proposed project is estimated to have a water demand of 0.051 MGD. The infrastructure and design components for the project will be consistent with City of Blythe requirements and the UWMP. The project will be further reviewed by the City to ensure compliance with all current and applicable water requirements. Proposed connections and domestic water infrastructure are illustrated in **Exhibit 3-8, *Conceptual Water and Sewer Plan*** (in the Project Description Chapter)***.*** No new off-site water facilities are required as a result of project development.

Wastewater

Wastewater Capacity

The City of Blythe provides sewer services to the community, including the project site. Wastewater is disposed of at the City owned wastewater treatment plant (WWTP), located at the southerly portion of the City. At present, the WWTP treats an average of 1.2 million gallons per day (MGD) and has a daily capacity to treat 5.3 MGD. On a daily average, wastewater flows entering the WWTP are less than half of the WWTPs capacity. The proposed project is estimated to generate wastewater at 19,845 gpd or 0.020 MGD, which is less than one percent increase of the existing annual flow. No new wastewater treatment facilities are required as a result of the proposed project.

Storm Water Drainage

The project is located in the East Colorado River Basin Planning Area which includes multiple watersheds encompassing the easternmost portion of Riverside, San Bernardino, and Imperial Counties, and the Colorado River Basin Region. At the regional level, the project is located within the Palo Verde Valley Watershed, also identified by the USGS as Hydrologic Unit (HU) 1503010408. The Palo Verde Valley Watershed encompasses approximately 388 square miles, including a majority of Blythe and the Palo Verde Irrigation District (PVID).

As a standard requirement, the project site design will incorporate stormwater management by conveying site runoff into on-site retention basins with a combined capacity to handle the water quality management plan design capture volume and the controlling 100-year storm event volume.

The project design features include a private storm drain system designed to capture and retain stormwater runoff from the entire project site and from an off-site tributary portion of Hobsonway along the northern boundary. The proposed storm drain system and runoff will not be connected or comingled with the adjacent PVID irrigation delivery channels as part of the routine operations. Instead, these facilities will be separated from project flows via barrier curb and grade separations. The design criteria for sizing of the inlets, conveyances, and retention systems are based on the worst-case 100-year storm

event for the site and development. In doing so, the project will prevent stormwater runoff discharge up to the design condition. All storm drain facilities and retention systems will be privately operated and maintained during the life of the project, such that they will not add or impede the City's public works operations.

Although the project site is not located within a Municipal Storm Water Program, the proposed stormwater management method is functionally equivalent to the traditional requirements of an MS4 pertaining to the post-construction regulation of stormwater quantity and quality.

Electric Power

The site is within the Southern California Edison (SCE) service area for electric service. Existing overhead distribution power poles are located north of the project, on the north side of Hobsonway, and along the western project boundary. The project will be required to connect to the existing off-site SCE electrical infrastructure to provide electricity to the site. Coordination with SCE will allow the project to extend electrical facilities along existing, disturbed right-of-way to serve the site, and to comply with all requirements of the utility provider during each phase of project development. Development of new electrical infrastructure will be required as part of the project after the development of the first building. The project will be required to build a circuit bank at an existing substation for the operation of buildings 2 through 12. The purpose of the circuit bank is to provide electricity to the project only. The facility will be designed and constructed to the design standards of and in coordination with SCE, and the additional electricity will be conveyed through the existing, disturbed right-of-way. The proposed improvements must be approved by SCE to ensure the design standards are met. On May 3, 2022, SCE provided a will serve letter stating that SCE will serve the project's electrical requirements per the CPUC and FERC tariffs. The will serve letter is included as **Appendix F.2** in this DEIR.

As previously discussed in **Section 4.5, *Energy Resources***, of this Draft EIR, the project proposes using two (2), 12.47 kilovolt (KV) primary metered electrical services. Each proposed building would have a connected load of approximately 2.88 – 3.56 Megawatt (MW) with a load diversity of 75 percent, and an anticipated demand of 2.44 – 2.67 MW per day. The entire project will have a connected load of 38.5 MW with a load diversity of 75 percent anticipating a demand of 28.9 MW at 12.47 KV (SCE infrastructure).

Buildout of the project, related projects, and additional forecasted growth in SCE's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. SCE's planning area consumed approximately 3,959.5 GWh of electricity in 2020. According to the CEC's Demand Analysis Office, SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh (which is 129,000,000 MWh) annually by 2030. Based on the project's estimated annual electrical consumption of 139,284 MW, the project would account for approximately 0.11 percent of SCE's total estimated demand in 2030.

During construction of the proposed project, electricity would be consumed to supply and convey water for dust control and, on a limited basis, may be used to power lighting, and electronic equipment. Electricity consumed for onsite construction trailers, which are used by managerial staff during the hours of construction activities and other construction activities necessitating electrical power would be provided by SCE. A total of approximately 1,988.2 kWh of electricity is anticipated to be consumed during construction.

The electricity demand at any given time would vary throughout the construction period based on construction activities being performed and would cease upon completion of construction. When not in use, electric equipment would be powered off to avoid unnecessary energy consumption. The estimated construction electricity usage represents approximately 0.037 percent of the project's estimated annual operational demand.

Additionally, SCE implements energy conservation measures in the service area. The project will be required to comply with regional and local conservation measures to ensure project-related energy consumption is not significant. Energy codes established by the State will be implemented by the project as an effort to reduce energy consumption and increase energy efficiency at the project site.

Natural Gas

Natural Gas is provided within the City by Southern California Gas Company. The project does not propose the use of natural gas for project implementation.

Telecommunications

The project is located within Frontier and Charter Communications' service area for telecommunications. The project will be able to tie into the existing cable, telecommunications lines located along Hobsonway. The project will not require or result in the relocation or construction of new or expanded telecommunication facilities.

Conclusion

The project will not require or result in the relocation or construction of new or expanded off-site water, wastewater treatment, storm water drainage systems, natural gas, or telecommunication facilities. Communication between the project and the service providers during the project's construction and connection to existing facilities will occur throughout project development. Impacts would be less than significant.

b. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Groundwater produced from the Palo Verde Valley Groundwater Basin is the sole source of domestic water supply in the City of Blythe. Blythe's 2020 adopted Urban Water Management Plan (UWMP) has been developed to assist the agency in reliably meeting current and future water demands in a cost-effective manner. The comprehensive Water Management Plan guides efforts to eliminate overdraft, prevent groundwater level decline, protect water quality, and prevent land subsidence.

The Palo Verde Valley Groundwater Basin is located in the southeastern part of California along the State border with Arizona. The Palo Verde Valley Groundwater Basin is located within the Colorado River Hydrologic Region, which is known for its arid climate and low level of precipitation-driven groundwater recharge. The basin is bounded on the west by the Palo Verde Mesa, on the south by the Palo Verde Mountains, and on the east by the Colorado River. The basin has three major aquifers, which consist mostly of alluvial deposits. The total storage capacity of these three aquifers (the basin overall) is just under 5 million acre-feet. Recharge of the Palo Verde Basin is primarily from the Colorado River.

Due to the lack of competition within the basin over groundwater rights, the Palo Verde Basin has not been adjudicated. As an unadjudicated basin, there are no legal pumping limits restricting the City's groundwater pumping. More importantly, there are no agreements in place between the City and PVID which restrict the amount of groundwater the City can extract from the basin. The only restrictions affecting the City's quantity of groundwater supplies is groundwater quality, which is monitored and enforced by the State Division of Drinking Water (DDW).

Further, due to PVID's long-standing first-priority Colorado River water rights, and the legal definition of groundwater in the basin, there are no terms in place which limit the amount of groundwater available to the City. As a result, the extent of the City's infrastructure is the only limitation on the volume of water that the City can supply. Theoretically, if the City desires to increase the volume of groundwater used, the City can do so by drilling more wells and adding additional treatment infrastructure (if necessary due to water quality).

Today, there are a total of fifteen (15) groundwater wells that the City owns and maintains. Twelve (12) of these wells are located within the City's main core or "Blythe Proper", two (2) are located in the Mesa Ranch Area, and one is located in the Hidden Beaches Resort area. The earliest of these wells (Well 8) was drilled in 1950. The most recent wells (Wells 18 and 19) were drilled in 2006-2007.

The provisions of the Law of the River and the constant recharge of the Palo Verde Groundwater Basin secure both PVID's and the City's water supplies for the foreseeable future. Per **Table 4.14-1, *Projected Available Water Supply***, from the Blythe UWMP, the projected water supply at 2/3 capacity is 6,900 AFY, and 10, 300 AFY at maximum capacity, if the wells run 24/7. Per the Blythe UWMP, the City is likely to expand its groundwater supply production capacity in the future, and this projected available water supply is a conservative estimate. The City's wells operate far less than 24/7, and the City has much more available water supply than needed.

Table 4.14-1 Projected Available Water Supply

Year	Max. Avail. Supply (AF)	2/3 Capacity (AF)
2020	10,300	6,900
2025	10,300	6,900
2030	10,300	6,900
2035	10,300	6,900
2040	10,300	6,900

Source: Table 3.4 of Blythe UWMP

With open lots in the City available for development, the City has more potential for new development than typical "built-out" urban areas of Southern California. If this development occurs, this will result in greater total water consumption if the rate of City consumption remains steady. Over time, it is reasonable to expect the rate of water use to decrease slightly from "passive savings". This is based on the idea that new developments will be more apt to conserve water and are subject to new plumbing and building codes and therefore likely to be equipped with water saving fixtures and landscapes. Also, over time, residents tend to become aware of water conservation overall and City-specific measures such and landscape irrigation and car washing restrictions. This "passive savings" will help offset new water demands stemming from new development in the City.

For planning purposes, the City's projected water use for 2025-2045 is broken down by sector in **Table 4.14-2**, ***Projected Water Demand by Sector***, from the Blythe UWMP. The City anticipates a population of 22,330 by the year 2045 and a total water consumption of 4,318 AFY.

Table 4.14-2 Projected Water Demand by Sector

Sector	2025	2030	2035	2040	2045
Water Service Area Population	16,170	17,710	19,250	20,790	22,330
Consumption Rate (GPCD) *Including 0.5% Annual Passive Savings*	191	186	182	177	173
Demands (AFY)					
Single Family Residential	1,707	1,823	1,932	2,034	2,130
Multi-Family Residential	386	413	437	460	482
Commercial/Institutional	533	569	603	635	665
Industrial	10	11	11	12	12
Landscape Irrigation	274	293	310	327	342
Other	5	5	5	6	6
Total Water Sales:	**2,915**	**3,113**	**3,299**	**3,474**	**3,638**
Unaccounted for Water	546	583	617	650	681
Total Water Consumption (Total Supply into System):	**3,460**	**3,695**	**3,916**	**4,124**	**4,318**

Source: Table 6.7 of Blythe UWMP

The development of the proposed project would result in an overall increase in potable water demand from the project site during operation (non-potable water supplied by the PVID is currently used in connection with exiting agricultural operations on the project site). Connections proposed to serve the site are located along Hobsonway (**Exhibit 3-8, *Conceptual Water and Sewer Plan*).** 2-inch, 8-inch and 12-inch waterlines would then be extended throughout the property and existing public right-of-way. The construction activity of these additional connections would be temporary. The proposed water demand calculations are based on the project's square footage. The project has an estimated potable water demand of 57.37 AFY. This represents approximately 2 percent of the City's total water supply (4, 318 AF) for 2045.

Table 4.14-3 Project Water Demand

Land Use	Water Demand (GPD)	Water Demand (MGD)	Water Demand (AFY)
Cannabis Cultivation Buildings 1-12	51,187	0.051	57.37

The proposed project will continue to implement water conservation measures in accordance with the applicable ordinance requirements pertaining to Water Conservation (Blythe Municipal Code 13.05). Interior fixtures are also expected to be water efficient, thus complying with the local water conservation strategies. Based on the information provided in this analysis, there is substantial evidence to support a

determination that there will be sufficient water supplies to meet the demands of the project. Therefore, impacts to the water supply as a result of the proposed project would be less than significant.

c. Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity for the project's projected demand in addition to the provider's existing commitments?

The City of Blythe estimates a daily flow to the City's Wastewater Treatment Plan (WWTP) of 5.3 million gallons per day (mgd). At present, the WWTP treats an average of 1.2 mgd and has a daily capacity to treat 5.3 mgd. On a daily average, wastewater flows entering the WWTP are less than half of the WWTPs capacity. The proposed project is estimated to generate wastewater at 19,845 gpd or 0.020 mgd, which is less than one percent increase of the existing annual flow.

Since development and population growth are not expected to drastically change over the course of this UWMP planning period (2045), the City anticipates that projected wastewater flows can be estimated using a wastewater return rate, which amounts to an average wastewater return rate of 90 gallons per-person-per-day. Therefore, the projected wastewater flows through 2045 are shown in **Table 4.14-4, *Projected Wastewater Flows Collected & Treated***, below:

Table 4.14-4
Projected Wastewater Flows Collected & Treated

Year	Flows (AF)	Flows (MG)
2025	1,475	481
2030	1,630	531
2035	1,785	582
2040	1,941	632
2045	2,096	683

Source: Table 4.2 of Blythe UWMP

As indicated by the above table. The WWTP has capacity to handle all flows through 2040. Approximately 1,200 linear feet of eight-inch PVC pipes are proposed for the sewer. The proposed sewer pipes would connect to the existing manhole located on Hobson Way (north of the project). Two sewer lift stations are proposed on site to provide a gravity sewer feed. One on the southerly side of the project and the other is located on the north end of the site. 4-inch sewer laterals will connect to the 8-inch PVC pipes to provide sewer service to the project without the need for additional off-site infrastructure. Flows would then be delivered to the City's WWTP. The proposed project will not cause existing volumes or planned capacity to be exceeded, and is consistent with the requirements set forth by the City.

The project's final engineering plans will undergo additional review by the City to assure compliance with all current and applicable requirements. As demonstrated above, the project is not expected to exceed the City's wastewater capacity demand and impacts are less than significant.

d. Would the project generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Cannabis cultivation operations may generate solid waste from various materials and containers used during cultivation (e.g., soils, fertilizers, pesticides, pots), as well as household trash from workers, discarded irrigation tubing, and other equipment. Activities related to manufacturing, processing, and distribution would create solid wastes typical of other workplace activities (e.g., food containers, paper products). Solid waste would be collected by CR&RC and hauled to the Blythe Sanitary Landfill. All cultivation and operation plans must prepare a solid waste management plan that describes how solid waste would be disposed of as part of clearance and permit requirements.

Construction-related waste would be transported to a local landfill authorized to accept this waste for disposal or an appropriate recycling center authorized to accept recyclable materials.

The project is estimated to generate 200 pounds a week of unusable plant matter per building. The plant stems from the cultivation facility would be dried and run through a chipper shredder and disposed of in accordance with City and State regulations. Twelve buildings are proposed for cultivation use and in total, would generate an estimated 2,400 pounds of waste per week or 336 pounds a day and 0.016 tons per day and 62.4 tons per year. This is still well below the Blythe Sanitary Landfill's capacity of 400 tons per day and less than one percent of its daily capacity.

In order to determine whether project-generated waste from hazardous materials (such as light bulbs at the end of their lifespan) could be disposed of appropriately, the local waste management provider, CR&R Environmental Services, was contacted on March 29, 2022. CR&R stated that they do not accept hazardous waste generated by commercial facilities and directed the question towards a facility that accepts household hazardous waste. The Riverside County Department of Waste Resources (RCDWR), when contacted, indicated that the closest facility that accepts commercial hazardous waste at the capacity that the project will be producing is Environmental Logistics, located at 140 West Monte Avenue, in Bloomington California. This site collects hazardous wastes, including light bulbs in large quantities and cannabis waste. The project's coordination with waste disposal services is required as **Mitigation Measure HAZ-5**. See **Section 4.8, *Hazards and Hazardous Materials,*** in this Draft EIR for further discussion.

Development of the proposed project would generate an increase in solid waste that is within the existing capacity of the City's landfill. The project would not impede the City's ability to meet the waste diversion requirements of the California Integrated Waste Management Act. As part of its long-range

planning and management activities, the Riverside County Department of Waste Resources (RCDWR) ensures that Riverside County has a minimum of 15 years of capacity, at any time, for future landfill disposal. The most recent 15-year projection by the RCDWR indicates that no additional capacity is needed to dispose of countywide waste through 2024, with a remaining disposal capacity of 28,561,626 tons in the year 2024.

In addition, all future development would be required to comply with mandatory commercial and residential recycling requirements of Assembly Bill 341. The project will comply with all applicable solid waste statutes, policies and guidelines; and the project will be served by a landfill with sufficient capacity to serve the project. Therefore, impacts relative to solid waste are less than significant.

e. Would the project comply with federal, State, and local management and reduction statutes and regulations related to solid waste?

The project will comply with all applicable solid waste statutes, policies and guidelines. All development is required to comply with the mandatory commercial and residential recycling requirements of Assembly Bill 341. The California Green Building Standards Code (Cal Green) applies to all cities in California, and mandates that all new building construction develop a waste management plan that includes diversion of at least 65% of construction and demolition material from landfills, through recycling and/or reuse. There are no impacts relative to applicable solid waste regulations because the project is required to, and will, comply with all such regulations.

4.14.5 Cumulative Impacts

New and existing local development within the City and the surrounding project area have the potential to result in cumulative impacts when combined with build-out of the City of Blythe General Plan. A “cumulative impact” refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental effects. An adequate discussion of a project’s significant cumulative impact, in combination with other closely related projects, can be based on either: (1) a list of past, present, and probable future projects producing related impacts; or (2) a summary of projections contained in an adopted local, regional, or Statewide plan, or a related planning document that describes conditions contributing to the cumulative effect (CEQA Guidelines Section 15130(b)(1)(A)(B).

For purposes of assessing the proposed project’s cumulative impact with respect to utilities and services systems, the cumulative analysis is based upon a combined list and plan project approach. As discussed below, the project would not result in a significant cumulative impact to the utilities and service systems.

Water Supply

The proposed project's water demand of 57.37 AFY would not exceed the water supplies available to serve the project. The Blythe 2020 UWMP determined that the City has sufficient supplies to meet this demand, in addition to its other existing and projected demands, during normal, single dry, and multiple dry years. The proposed project's contribution to cumulative water supply impacts would also be less than significant.

Wastewater

The project would result in an increase to wastewater flows. Project flows would be delivered to the City's WWTP located in located at the southerly portion of the City. The proposed project is estimated to generate wastewater at 19,845 gpd or 0.020 mgd, which is less than one percent increase of the existing annual flow. Proposed projects within the City would be required to undergo environmental review to determine if the existing wastewater infrastructure has adequate capacity to serve the project or if other onsite and off-site improvements would be necessary in order to provide service.

As discussed in this document, adequate sewer capacity exists to the serve the projects minimal increase to wastewater. The proposed project would connect into the existing sewer main in Hobsonway. The projected increase in wastewater flows would not require the expansion of wastewater treatment facilities.

Additionally, all new development in the City would be required to complete an environmental analysis per CEQA Guidelines, which would analyze and disclose any potentially significant impacts on wastewater services. Therefore, the project's contribution to cumulative wastewater would have less than significant impacts.

Solid Waste

Buildout of the General Plan will result in the construction and operation of various land uses including residential, commercial, and industrial uses, which would result in the increase of solid waste generated in the area. As previously stated, the Blythe Sanitary Landfill has 3,834,470 cubic yards of remaining capacity. Development projects within the project area and in the City would be reviewed during the development review process to ensure they are designed to comply with all applicable solid waste regulations. As discussed in this section, the project is projected to generate approximately 2,400 pounds or 62.4 tons of solid waste a year and 0.16 tons per day. The landfill serving the City and the project site still have an available remaining capacity and there is potential for expansion at the landfill. The proposed project represents a small percentage of the overall remaining capacity at the Blythe landfill and would not substantially shorten the life of the landfills. Therefore, cumulative impacts to solid waste would be less than significant.

Electricity

Buildout of the project, related projects, and additional forecasted growth in SCE's service area would cumulatively increase the demand for electricity supplies and infrastructure capacity. SCE's planning area consumed approximately 3,959.5 GWh of electricity in 2020. According to the CEC's Demand Analysis Office, SCE estimates that electricity consumption within SCE's planning area will be approximately 129,000 GWh (which is 129,000,000 MWh) annually by 2030. Based on the project's estimated annual electrical consumption of 139,284 MW, the project would account for approximately 0.11 percent of SCE's total estimated demand in 2030.

The proposed project, and other future development projects would be expected to incorporate energy conservation features, comply with applicable regulations including CALGreen and State energy standards under Title 24, and incorporate energy design features, as required. Increased efficiency, both in construction materials and fixture design, will apply not only to the proposed project, but to all cumulative projects developed within the service areas of local energy providers and fuel suppliers. Therefore, the project's contribution to cumulative impacts related to wasteful, inefficient and unnecessary use of electricity would not be cumulatively considerable and, thus, would be less than significant.

Natural Gas

Buildout of the City of Blythe would result in additional natural gas demand within SoCalGas's service area. SoCalGas has adequate policies, programs, and projects in place to provide energy to their users, including the proposed project, for the foreseeable future. As described in **Section 4.5, *Energy Resources***, SoCal Gas projects total gas demand to decline at an annual rate of 1 percent from 2020-2035.

SoCalGas engages in a number of energy efficiency and conservation programs and invests in research and development of new and emerging clean, energy-efficient technologies for residential commercial, industrial, power generation, and transportation markets to reduce their energy use. The California Energy and Electric Utilities estimates natural gas consumption within SoCalGas's planning area will be approximately 2,310 million cf per day in 2030.

Due to the nature of the proposed project, it will not need to use natural gas and does not propose any gas connections. Therefore, demand would not be cumulatively considerable and would not cause or contribute to a significant cumulative impact.

Telecommunication

Buildout of the City of Blythe would result in increased demand for telecommunication services. The project is located within Frontier's and Charter Communications' service areas for telecommunications. Although buildout of the City would increase demand of telecommunication services, future developments are required to participate in the design review process of telecommunication plans

associated with the future development. Therefore, demand would not be cumulatively considerable and would not cause or contribute to a significant cumulative impact.

4.14.6 Mitigation Measures

No mitigation measures are required.

4.14.7 Level of Significance After Mitigation

Impacts associated with Utilities and Service Systems will be reduced to less than significant levels, with project compliance with all design standards of the City of Blythe, SCE, and SoCalGas.

4.14.8 Resources

1. CalRecylce Estimated Solid Wase Generation Rates, CalRecycle, https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates#Residential accessed August 2020.
2. County of Riverside Environmental Impact Report No. 521 Public Review Draft February 2015 https://planning.rctlma.org/Portals/14/genplan/general_plan_2015/DEIR%20521/04-17_PublicFacilities.pdf, accessed August 2020.
3. Environmental Protection Agency, RecycleMania Volume-to-Weight Conversion Chart https://archive.epa.gov/wastes/conserve/tools/rogo/web/pdf/volume-weight-conversions.pdf, accessed March 2021.
4. Riverside County Department of Waste Resources https://www.rcwaste.org/business/planning/ciwmp accessed August 2020.

Chapter 5.0 Other CEQA Sections

5.1 Purpose

This chapter of the Draft EIR addresses the additional content requirements of the State CEQA Guidelines that are not included in other chapters. CEQA Guidelines require a section of the document to discuss significant unavoidable impacts, significant irreversible impacts (per Section 21100 (b)(2)), and growth-inducing impacts (per Section 15126.2). These topics are discussed in this chapter.

5.2 Significant and Unavoidable Impacts

Per Section 15126.2 (c) of the CEQA Guidelines, the EIR shall describe any significant impacts, that cannot be avoided, including those impacts that can be mitigated but not reduced to a less-than-significant level.

Chapter 4.0, Environmental Analysis of this EIR describes the potential environmental impacts of the project and recommends mitigation measures to reduce impacts, where feasible. As determined in the analyses presented in **Sections 4.1** through **4.14**, although the project as proposed has the potential to result in impacts to a variety of resource topics, each potential impact can be mitigated to less than significant levels through adoption of the mitigation measures, project design features and/or compliance with regulatory requirements as specified in those sections. The project would not result in any significant and unavoidable impacts.

5.3 Significant Irreversible Environmental Changes

CEQA Guideline Section 15126.2 (d) requires consideration and discussion of uses of nonrenewable resources during construction and operation of the project that may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as a highway improvement which provides access to a previously inaccessible area) generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with a project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

The irreversible and irretrievable commitment of resources is the permanent loss of resources for future or alternative purposes. Irreversible and irretrievable resources are those that cannot be recovered or recycled or those that are consumed or reduced to unrecoverable forms. The proposed project would result in moderate irreversible and irretrievable commitments of energy and material resources (during construction and operation) of the following:

- Construction materials

- Energy in the form of electricity, natural gas, and petroleum
- Land area committed to the project; and
- Water supply for project operation

Development of the proposed project will result in the use of construction materials and resources. The California Green Building Standards Code (CALGreen) applies to all cities in California, and mandates that all new building construction develop a waste management plan that includes diversion of at least 65% of construction and demolition material from landfills, through recycling and/or reuse. The project will be required to comply with applicable solid waste regulations to ensure that the project does not result in the inefficient use of materials during construction of the project (see **Section 4.14, *Utilities and Service Systems***).

The use of these nonrenewable resources is expected to account for a minimal portion of the region's resources and would not affect the availability of these resources for other needs within the region. Construction activities would not result in inefficient use of energy or natural resources. As determined in **Section 4.5, *Energy Resources***, during construction of the project, electricity would be consumed to supply and convey water for dust control and may be used to power lighting, and electronic equipment. Electricity consumption during construction of the site is anticipated to be minimal and within the infrastructure service capabilities of SCE. Additionally, when not in use, electric equipment would be powered off so as to avoid unnecessary energy consumption.

Petroleum fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, while vehicle miles traveled (VMT) associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. As stated in **Section 4.5, *Energy Resources,*** the US EPA applied a Tier 3 program in order to reduce the impacts of motor vehicles on air quality and public health. The US EPA enables more stringent vehicle emissions standards and will make emissions control systems more effective for both existing and new vehicles. The vehicle emissions standards will reduce both tailpipe and evaporative emissions from passenger cars, light-duty trucks, medium duty passenger vehicles, and some heavy-duty vehicles. The standards also facilitate the development of some lower-cost technologies to improve fuel economy and reduce greenhouse gas emissions, which reduces gasoline consumption. Overall, **Section 4.5** determined that project construction would not consume petroleum in a wasteful or inefficient manner.

Long-term operational activities would not result in inefficient consumption of energy and natural resources. Operation of the project site would result in the consumption of electricity and petroleum use during the life of the project. As determined in **Section 4.5**, the project would implement energy conservation measures and project design features compliant with state regulations such as Title 24 and CALGreen requirements related to energy efficiency. Implementing rooftop solar and energy-efficient design features will both generate electricity onsite, and reduce electricity consumption,

respectively. The project will utilize water efficient plumbing fixtures, drought tolerant plants, and water efficient irrigation systems. Although project-related VMTs and petroleum consumption would not result in significant impacts (see **Section 4.12, *Transportation***), the following VMT reduction strategies may be considered for the project to reduce VMTs further:

- Designated employee transportation coordinator (ETC) to provide education and point of contact for commute related questions and commuter benefits.
- Bicycle end-trip facilities, such as secure bike parking, storage lockers, and showers onsite.
- Carpool and vanpool ride-match services, such as Wave Carpool.
- Providing preferential carpool parking.
- Providing the option for compressed work weeks such as 4 days 10 hours per day, which reduces the need for commuting by one day per week.

These project features reduce project-related energy consumption, avoiding the inefficient consumption of energy during project operation.

The construction of the proposed project will result in irreversible changes to the physical environment of the project site, which currently operates as an agricultural field. The site is surrounded by agricultural uses to the west and north, vacant and commercial land to the east, and the Interstate 10 freeway to the south. The project has been continually disturbed by the growth and harvesting of agricultural products for many years. Therefore, there is no new loss of natural plant or animal habitats resulting from the development of the proposed project. Additionally, the project is required to conduct a burrowing owl clearance survey not more than 14 days prior to site modification to determine whether burrowing owls occurring at the site (see **Section 4.3, *Biological Resources***).

Construction and operation of the proposed project will generate demand for water resources. As a standard requirement by the City of Blythe (Chapter 13.05, Water Conservation in the City Municipal Code) the project will implement water conservation methods to assure the most efficient use of water resources. The water conservation methods include using native plant materials and drought tolerant plants. The project will also install and maintain efficient on-site irrigation systems to minimize runoff and evaporation and maximize effective watering of plant roots via drip irrigation; and install low-flush toilets. The project will result in the consumption of 4,500 gallons of water per day (gpd) per building. The project proposes the operation of twelve buildings; therefore, the total project would consume 54,000 gpd, which equates to 60.5 acre-feet per year (AFY). The project would use reclaimed water through the process of collecting condensate water from the plants, as well as implementing advanced water treatment systems. This is discussed in **Section 4.14**, ***Utilities and Service Systems***.

Therefore, although impacts would be less than significant with mitigation, such impacts would be considered irreversible. Further, construction and/or operation of the proposed project would

require the use of resources that include, but are not limited to, soils, gravel, concrete, and asphalt, lumber and other related forest products, petrochemical construction materials, steel, copper, and other metals, water, fuels, and energy. As such, the proposed project would result in the short-term and long-term use of fossil fuels and other nonrenewable resources. See **Section 4.5, *Energy Resources***, **Section 4.3, *Biological Resources,*** and **Section 4.14, *Utilities and Service Systems,*** of this Draft EIR for more detailed discussion.

5.4 Growth-Inducing Impacts

Section 15126.2 (e) of the CEQA Guidelines requires the EIR to discuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly (e.g., by proposing new homes or businesses) or indirectly (e.g., through extension of roads or other infrastructure).

A project is defined as growth inducing when it directly or indirectly:

1. Fosters population growth
2. Includes the construction of additional housing in the surrounding environment
3. Removes obstacles to population growth
4. Taxes existing community service facilities, requiring construction of new facilities that could cause significant environmental effects
5. Encourages or facilitates other activities that could significantly affect the environments, either individually or cumulatively

It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment.

As stated throughout this Draft EIR, the proposed project site currently operates as agricultural land. The project is proposing the development of a cannabis business park with 12 buildings for cultivation and office/administration buildings on approximately 34 acres and requires approval of a Site Plan.

The proposed project would employ approximately 534 people (based on estimates generated by Urban Crossroads, Inc., in the VMT Analysis (**Appendix M.2**). The proposed commercial uses of the project would induce growth in employment opportunities required for the operation of cannabis cultivation. However, the project will not result in a large employment base, and jobs created at the project are expected to be absorbed by new and existing residents of the City and surrounding jurisdictions.

The adopted Southern California Association of Governments (SCAG) 2017 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for the City of Blythe identifies projected growth in population from 20,000 in 2012 to 24,000 in 2040, or a 23 percent increase over

the 28-year period. The change in population equates to roughly a 0.74 percent growth rate, compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 38 percent, or by 1.15 percent annual growth rate. The project will result in additional jobs and employment in the City during construction and operation of the site. The project may encourage relocation for employment; however, considering the facility's size and purpose and the comparison with other general commercial uses in the area, relocation of employees generated by construction and operation of the proposed facilities would not be anticipated to be substantial Improvements to roads and other infrastructure associated with the cultivation and processing facility would not be expected to induce substantial growth to the area.

SCAG projects growth in employment from 4,800 jobs in 2016 to 6,300 jobs by 2045. Employment generated by the project will include approximately 534 employees, based on 1 employee per 1,000 square feet. In 2019, Blythe had approximately 5,200 employees in the City. The addition of approximately 534 jobs would result in a new total of 5,734 employees. This growth is accounted for in the SCAG growth forecasts and therefore, the project would not result in unplanned growth.

The proposed project lies adjacent to the existing paved roadways, Hobsonway (north) and Interstate 10 (south). Extensions of these roadways are not proposed as part of project implementation. Access to the site will occur on Hobsonway, at the northern property boundary.

The project will be required to connect to off-site electrical power. Existing overhead distribution power poles are located north of the project, on the north side of Hobsonway, and along the western project boundary. The project will coordinate with Southern California Edison (SCE), the local electricity provider, to connect to the existing facilities. Development of new electrical infrastructure will be required as part of the project after the development of the first building. The project will be required to build a circuit bank at an existing substation for the operation of buildings 2 through 12. The purpose of the circuit bank is to provide electricity to the project only. The proposed infrastructure is not intended to provide electric power to the areas surrounding the project. The facility will be designed and constructed to the design standards of and in coordination with SCE. The proposed improvements (i.e., circuit bank) must be approved by SCE to ensure the design standards are met.

Water lines currently extend to the site along Hobsonway. The project will connect to the existing City of Blythe domestic water line. The project proposes sewer infrastructure consisting of gravity sewer lines, lift stations, and a force main. The project will connect to the City's sewer system. Extensions of the City of Blythe's sewer infrastructure are required to support growth in the City, and the City has accounted for this growth in its General Plan. No additional extensions of infrastructure will be required.

Although the project would extend the existing sewer infrastructure to the site, this would not result in indirect growth inducing impacts that were not anticipated by the City of Blythe. The infrastructure will provide sewer services to the commercial land uses along Hobsonway. Therefore, the proposed

project would not contribute to substantial population or housing growth unexpected by the City of Blythe, and growth inducing impacts will be less than significant.

Chapter 6.0 Effects Not Found to Be Significant

As discussed in **Chapter 1.0, *Executive Summary***, the City of Blythe (City) is the lead agency for the CEQA environmental review of the proposed Edelweiss Sustainable Farms project ("project"). The City has prepared this Draft EIR in compliance with CEQA, including Section 15128 of the CEQA Guidelines which requires a brief description of resource topics that were determined to have no potential impacts related to the proposed project, and were therefore eliminated from further assessment.

The latest CEQA Guideline thresholds, established in the 2022 CEQA Guidelines Appendix G Checklist, were used in the analysis of this Draft EIR. The following discussion presents the analysis of the effects related to entire resource categories or select thresholds within a category for agriculture and forestry, geology and soils, hazards and hazardous materials, hydrology and water quality, land use and planning, mineral resources, noise, population and housing, recreation, and wildfire determined to have no potential to impact the environment, per the 2022 CEQA Guidelines.

6.1 Agriculture and Forestry Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

Threshold a: Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

The project site and surrounding lands includes land classified as Prime Farmland and Farmland of Statewide Importance (California Department of Conservation, 2018). In its existing condition, the property is characterized primarily by active agricultural uses consisting of cultivated row crops on approximately 26 acres. The cultivated area is defined by the tilled soil rows on a relatively level ground surface. Per the Riverside County Agricultural Commissioner's Office, the crop grown onsite was either cotton or alfalfa. The project site is currently designated as General Commercial by the City of Blythe. General Commercial (C-G) land uses are intended to provide for development of community-scale commercial centers with market areas often extending beyond the City limits and immediate environs. California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) define medical and adult-use cannabis as agricultural products. Regulation and licensing of cannabis growing is managed by the Department of Cannabis Control (DCC). Regulations require compliance with environmental requirements such as the regional water board cultivation permits,

and also concerning pesticide use, testing, sales, distribution, and a host of other standards similar to those faced by commercial agricultural producers in California. Since California law designates cannabis as an agricultural product, cultivation of cannabis on the project site would not result in the conversion of farmland to nonagricultural use. Therefore, the project would have no impact.

Threshold b: Conflict with existing zoning for agricultural use, or a Williamson Act contract?

The project site is not zoned for agricultural use established by the City of Blythe. Additionally, the project area is not subject to a Williamson Act contract. The closest property with a Williamson Act contract is located approximately 0.58 miles northwest of the project site. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts are anticipated.

Threshold c: Conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production?

The project site is not zoned for forest land or timberland. Therefore, the project would have no impact on forest resources.

Threshold d: Result in the loss of forest land or conversion of forest land to non forest use?

Forest land [as defined by California Public Resources Code section 12220(g)] is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The project site does not fit this definition of forest land. Therefore, the project would have no impact on forest resources.

Threshold e: Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?

The project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of forestland to non-forest use. The project site is currently utilized as farmland. The project proposes to develop 12 buildings for the cultivation of cannabis. The State of California considers cannabis as an agricultural product, therefore the proposed project would not covert the site from farmland to non-agricultural uses.

6.2 Geology and Soils

Threshold e: Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

Currently, the project site is not connected to the City's wastewater collection system. The project proposes sewer infrastructure to serve the site consisting of gravity sewer lines, lift stations, and force mains which will connect to the City sewer infrastructure in Hobsonway. Septic tanks are not proposed at the project site. Therefore, there will be no impacts and further analysis is not required.

6.3 Hazards and Hazardous Materials

Threshold c: Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

There are no existing or proposed schools within one-quarter mile of the project. The closest school to the proposed project is Twin Palms High School, which is located approximately 0.59 miles northeast of the project. Therefore, the project would have no impact regarding hazardous materials exposure for schools and no further analysis is required.

Threshold e: For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

The project is not located near an existing airport or airport land use plan. The nearest airport facility to the project is Blythe Airport, located approximately 5.10 miles to the northwest. As a result, the project is located outside of the airport's influence and planning area. Flights approaching and departing the Blythe Airport may fly over the City and the project site with intermittent frequency; however, impacts are not anticipated. Due to the project's distance from the airport, no impacts are anticipated.

6.4 Hydrology and Water Quality

Threshold c iv: Impede or redirect flood flows?

The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. Based on FEMA FIRM Panel Number 06065C3230G, effective August 28, 2008, the proposed project will occur in areas covered by the Zone D designation, which are also identified as areas with a potentially moderate to high risk of flooding, but the probability has not been determined. None of the proposed facilities will occur within any special flood hazard area, which are known to have higher flood risk. As presently mapped, special flood hazard areas do not occur near the project site. The proposed project will be required to address all City requirements and conditions associated with the

existing stormwater facilities, such that their construction and operation do not impede or result in the redirection of flood flows. No further analysis is required.

Threshold d: In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Being located in Zone D, as designated in FEMA FIRM Panel No. 06065C3230G, the project would not introduce structures or facilities to a Special Flood Hazard Area (SFHA), where the risk of inundation is considered to be higher. The proposed storm drain system will meet the City requirements by including the properly sized conveyance systems and meeting the design criteria of existing retention facilities, such that meets the local hydrologic requirements.

Flood Hazard: As previously determined, the project is located in Zone D, designated by FEMA, which is identified as other areas of undetermined flood hazard. The project site is not located in an area designated as SFHA, where the risk of inundation is considered to be higher. Therefore, the project will not introduce structures or facilities to an SFHA designated area. The proposed storm drain system will meet the City requirements by including the properly sized conveyance systems and meeting the design criteria of existing retention facilities, such that it meets the local hydrologic requirements. No further study of this topic is required.

Risk Release of Pollutants: The proposed cultivation facilities and commercial operations are not expected to involve the storage and handling of substantial amounts of chemicals, like petroleum products and other hazardous materials, such that the pollutant release would occur in the event of inundation. Several sections of the California Health and Safety Code deal with hazardous waste and hazardous materials. Under Chapter 6.95, Article 1, areas and businesses that have a threshold amount of hazardous materials on site (55 gallons of liquid; 500 pounds of solid for businesses) must have plans in place for emergency response to an accidental release of materials. These Hazardous Materials Business Plans (HMBPs) and Hazardous Materials Area Plans (HMAPs) must include a list of chemical and common names of the hazardous substance handled by the business; the category of waste; the maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite; information on how and where the hazardous materials are handled by the business for fire, safety, health and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials; emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and training for new employees and annual training (refresher courses). Under Chapter 6.95, Article 2, operators of stationary sources of hazardous materials are required (if they are deemed an accident risk) to prepare risk management plans (RMPs), detailing strategies to reduce the risk of accidental hazardous material release and submit them to the California Emergency Management Agency. Cannabis cultivators that store hazardous materials (e.g., pesticides, fuels) exceeding the threshold quantity would be required to prepare an HMBP. In most cases, the local Certified Uniform Program Agency (CUPA) is the

administering agency responsible for implementing the HMBP program. Data generated for HMBP compliance is managed through the statewide California Environmental Reporting System (CERS).

Additionally, the California Fire Code (29 CCR Part 9) requires businesses that handle more than a threshold quantity of hazardous materials to prepare a Hazardous Materials Management Plan (HMMP) and a Hazardous Materials Inventory Statement (HMIS). The HMMPs are similar to HMBPs and must include a facility site plan containing information (i.e., location of emergency equipment, hazardous material storage, emergency exits). Commercial cannabis cultivation facilities that store or handle greater than threshold quantities of hazardous materials would be required to prepare a HMMP and HMIS.

Project compliance with existing laws and regulations related to use and storage of pollutants would avoid release of pollutants. Licensed cannabis businesses are required to store chemicals in a secure building or shed, and to contain any chemical leaks and immediately clean up any spills. The project would be required to identify designated pesticides and other agricultural chemical storage areas as part of their cultivation plans. However, as an objective of the site, the project will cultivate and manufacture pesticide-free cannabis products. Therefore, pesticides will not be stored onsite. The project's adherence to state and local regulations regarding product use and storage will ensure that the project would not result in the release of pollutants. See **Section 4.8, *Hazards and Hazardous Materials***, for further discussion and mitigation regarding hazardous materials utilized during project construction and operation. No further study regarding the risk of pollutants release due to project inundation is required.

Tsunami: The project is not located near any coastal areas and therefore is not prone to tsunami hazards. No impacts and no further study regarding tsunamis are needed.

Seiche Zone: The project is not located in any mapped seiche zone, such as those associated with large bodies of water. Therefore, no impacts and no further study regarding seiche zones are needed.

Overall, the above specified topics are not subject to further study as part of the Draft EIR. No impact.

Threshold e: Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

The project proponent is required to implement the required compliance plans appropriate for the scale and nature of the proposed facilities in order to be consistent with the City of Blythe's 2020 Urban Water Management Plan. Therefore, the project will not conflict or obstruct implementation of water quality control or sustainable groundwater management, both of which are analyzed in the City's Urban Water Management Plan.

6.5 Land Use and Planning

Threshold a: Physically divide an established community?

The project would not physically divide an established community. The project property boundaries are delineated by Hobosonway to the north, C Canal to the east, Interstate 10 to the south, and an agricultural field to the west. The existing context in which the property is located consists primarily of agricultural lands to the north, west, and south, and commercial uses to the east. The surrounding properties operate independently from each other.

The proposed project occurs on land currently utilized for agricultural uses and will not create physical boundaries to the surrounding agricultural and commercial properties. The project will result in perimeter fencing; however, existing roadways and pedestrian paths would not be physically divided by the project. Therefore, the project would not physically divide the surrounding land uses. No impacts are expected, and no further analysis is required.

Threshold b: Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

The project site is designated Commercial General (C-G) in the City of Blythe General Plan 2025 and zoning map. The C-G land use and zoning allows for cannabis operations at the project site. Therefore, an amendment to the General Plan or a zone change will not be required as a part of the project. The project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, the project would have no impact.

6.6 Mineral Resources

Threshold a: Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

Threshold b: Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

The California Department of Conservation Mines Online tool does not identify any documented mines on the project site. Additionally, the Riverside County General Plan EIR classifies the City of Blythe to be within Mineral Resource Zone 4 (MRZ-4), in which the presence and significance of mineral deposits are undetermined. However, the City of Blythe General Plan EIR states that although several areas along Midland Road were historically mined for gypsum and gravel, there are no active mines within the City and surrounding area. Midland Road is located approximately 5.30 miles north of the project property. The majority of the closest mining operations are located north, outside of the City. There are no mineral deposit sites within the vicinity of the project and there are no known mineral resources of value on the project site. The project site does not contain a locally important mineral resource

recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, the project would have no impact on mineral resources.

6.7 Noise

Threshold c: For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

The project site is not within two miles of a public airport. The project site is located approximately 5.10 miles southeast of Blythe Airport. Therefore, the project site is not located within two miles of a public airport or the vicinity of a private airstrip. The project would not expose people residing or working in the area to excessive airport noise levels. Therefore, the project would have a no impact and no additional analysis is required.

6.8 Population and Housing

Threshold a: Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

The project site is zoned commercial and designated as General Commercial (C-G) in the City of Blythe General Plan 2025. The project proposes the development of twelve buildings for the cultivation of cannabis. Associated improvements, such as landscaping, paved drive aisle, and parking spaces are also proposed as part of the project.

The adopted Southern California Association of Governments (SCAG) 2017 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for City of Blythe identifies projected growth in population from 20,000 in 2012 to 24,000 in 2040, or a 23 percent increase over the 28-year period. The change in population equates to roughly a 0.74 percent growth rate, compounded annually. Similarly, growth over the same 28-year period in households is project to increase by 38 percent, or by 1.15 percent annual growth rate. The project will result in additional jobs and employment in the City during construction and operation of the site. The project may encourage relocation for employment; however, considering the facility's size and purpose and the comparison with other general commercial uses in the area, relocation of employees generated by construction and operation of the proposed facilities would not be anticipated to be substantial. The project does not have a residential component and the limited scope of improvements to roads and other infrastructure associated with the cultivation and processing facility would not be expected to induce substantial growth to the area because these improvements do not remove any barriers to development by extending or oversizing facilities to serve currently unserved areas.

SCAG projected growth in employment from 4,800 jobs in 2016 to 6,300 jobs by 2045. Employment generated by the project will include approximately 534 employees, based on 1 employee per 1,000 square feet. In 2019, Blythe had approximately 5,200 employees in the City. The addition of approximately 534 jobs would result in 5,734 employees. This growth is accounted for in the SCAG growth forecasts and therefore, the project would not result in unplanned growth.

The proposed project lies adjacent to the existing paved roadways, Hobsonway (north) and Interstate 10 (south). Extensions of these roadways are not proposed as part of project implementation. Access to the site will occur on Hobsonway, at the northern property boundary.

The project will be required to connect to offsite electrical power. Existing overhead distribution power poles are located north of the project, on the north side of Hobsonway, and along the western project boundary. The project will coordinate with Southern California Edison (SCE), the local electricity provider, to connect to the existing facilities. Development of new electrical infrastructure will not be required as part of the project.

Water lines currently occur along Hobsonway. The project will connect to the existing City of Blythe domestic water line and no additional extensions of infrastructure will be required. The project proposes sewer infrastructure consisting of gravity sewer lines, lift stations, and a force main to connect to the City's sewer system. However, the limited off-site sewer line to be constructed by the project will not extend sewer service to other unserved areas that could lead to substantial population or housing growth.

Less than significant impacts to population and housing are expected and no further analysis is required.

Threshold b: Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

The project site currently operates as an agricultural field; therefore, the property does not provide housing. The project property is located within the General Commercial land use designation established by the City of Blythe. Therefore, it can be concluded that the proposed project would not displace any existing housing units or people, necessitating the construction of replacement housing elsewhere. No impact is anticipated, and no further analysis is required.

6.9 Public Services

Threshold a: Would the project result in substantial adverse physical impacts associated with the provision of new of physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain

acceptable service ratios, response times or other performance objectives for any of the public services:

Parks:

As discussed in the Recreation Section of the document, the proposed project would not create significant additional demand for public park facilities, nor result in the need to modify existing or construct new park facilities. The closest park to the project site is Gateway Park, located approximately 0.50 miles to the east. The project is not anticipated to result in substantial population growth such that the demand for parks or other public facilities would necessitate new or altered recreational facilities. The project will be required to pay the City a fee for developing the commercial property as determined by Chapter 3.34, *Development Impact Fee*, of the Blythe Municipal Code, which includes a fee to fund additional recreational facilities in the City to meet future needs. Therefore, the project would have no impact on recreational facilities and no further analysis is needed.

Other Public Facilities:

No increase in demand for government services or other public facilities is expected beyond those discussed in this section. No impacts are anticipated, and no further analysis is needed.

6.10 Recreation

Threshold a: Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

Threshold b: Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?

The nearest park to the project site is Gateway Park, located approximately 0.50 miles to the east. Properties north, west, and south of the project operate as agricultural fields with one single family residential dwelling on the property to the west and one single family residential dwelling to the south on the opposite side of Interstate 10. Commercial uses and vacant lots are located east of the project site. The project proposes the development of a facility with twelve buildings for the cultivation of cannabis. No residential land uses are proposed and the approximate number of proposed employees working various shifts would not cause a substantial increase to the current existing neighborhood community, regional or local parks. The project would not include recreational facilities, nor require the construction or expansion of recreational facilities, nor affect use of existing recreational facilities. The project will be required to pay the City a fee for developing the commercial property as determined by Chapter 3.34, *Development Impact Fee*, of the Blythe Municipal Code. The fee will provide necessary

funds to public services, including police and fire protection, public utilities, water drainage, treatment and disposal of sanitary sewage, parks, and leisure-oriented facilities. Therefore, the project would have no impact on recreational facilities.

6.11 Wildfire

Threshold a: Substantially impair an adopted emergency response plan or emergency evacuation plan?

Threshold b: Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Threshold c: Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

Threshold d: Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff post-fire slope instability, or drainage changes?

The approximately 34-acre project site is characterized by active agricultural uses consisting of cultivated row crops in the City of Blythe. Situated south of Hobsonway and north of the Interstate 10 freeway, the site is surrounded primarily by agricultural land to the north, west, and south. Urban and developed areas of Blythe are located east of the project property. The project site and properties east and west of the site are located within the City's General Commercial land use designations, while the properties north and south of the project are unincorporated areas of Riverside County. Existing General Commercial facilities are located approximately 100 feet northeast of the project boundaries and 550 feet west of the project site.

According to CAL Fire's Fire Hazard Severity Zones (FHSZ) in State Responsibility Areas (SRA) Map, the project is not located in an SRA or located in an area classified as very high fire hazard severity zone (VHFHSZ). Additionally, the project property is not located in or near lands classified as high or moderate fire hazard severity zones. There are no areas within the City of Blythe that are designated FHSZ in SRA. Due to the project's distance from SRAs and areas designated as VHFHSZs, no impacts are anticipated, and no further analysis is required.

Wildfire risk is related to a number of parameters, including fuel loading (vegetation), fire weather (winds, temperature, humidity levels, and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazards by intensifying the effects of wind and make fire suppression

difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is not located near slopes. Additionally, the project site and the surrounding uses to the north, west, and south are defined by agricultural crops, which are watered and harvested seasonally. The project is not located in or near an SRA, or in an area classified as a VHFHSZ. Therefore, the project site is not expected to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Moreover, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires because a majority of the City of Blythe does not provide conditions, such as dense vegetation and steep slopes, conducive for the spread of wildfires.

The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because it will provide emergency fire access to the project site and will not alter the City's existing street system. Emergency access would be compliant with the standards of the Fire Department to ensure proper vehicular access for emergency vehicles to the site. As a result, the project is not expected to require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Furthermore, wildfires are not expected to occur at the project site due to the lack of fuel and slopes on and surrounding the project. Therefore, the project would not expose people or structures to significant risks, including downslope, or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes as a result of a wildfire. No impact is expected to result from the project, and no further analysis is required.

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Chapter 7.0 Alternatives

7.1 Introduction

This chapter provides a comparative analysis of the environmental effects of alternatives to the proposed Edelweiss Sustainable Farms project ("project"). This analysis has been prepared in accordance with the California Environmental Quality Act (CEQA) Guidelines. Per CEQA, it is required that an environmental impact report (EIR) describe a range of reasonable alternatives to the project, or to the location of the project, that would feasibly attain most of the basic objectives of the project while avoiding or substantially lessening any of the significant environmental impacts of the project. An EIR must include sufficient information about each alternative to allow meaningful evaluation, analysis, and comparison with the proposed project. This section identifies and describes alternatives to the proposed project, evaluates the environmental impacts that would result from each of these alternatives, and compares these with the proposed project, as required by CEQA.

Key provisions of the State CEQA Guidelines (Section 15126.6) relating to this alternative's analysis are summarized below:

- The discussion of alternatives shall focus on alternatives to the project or its location which would feasibly attain most of the project objectives and are capable of avoiding or substantially lessening any significant effects of the project.
- The No Project Alternative shall be evaluated along with its impact. The No Project analysis shall discuss the existing conditions.
- Additionally, the alternatives analysis shall discuss what would be reasonably expected to occur in the foreseeable future if the project is not approved, based on current plans and consistent with available infrastructure. This is analyzed in the General Commercial General Plan and Zoning Development Alternative.
- The range of alternatives required in an EIR is governed by a "rule of reason" that requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The alternatives shall be limited to ones that would avoid or substantially lessen any of the significant effects of the project.
- Only alternative locations that would avoid or substantially lessen any of the significant effects of the project need to be considered for the inclusion in the EIR. However, if the lead agency concludes that no feasible alternative locations exist, it must disclose the reasons for this conclusion, and should include the reasons in the EIR.
- Among the factors that may be taken into account when addressing the feasibility of alternatives are site suitability, economic viability, availability of infrastructure, general plan consistency, other plans or regulatory limitations, jurisdictional boundaries (projects with a

regionally significant impact should consider the regional context), and whether the proponent can reasonably acquire, control or otherwise have access to the alternative site (or the site is already owned by the proponent). No one of these factors establishes a fixed limit on the scope of reasonable alternatives.

- An EIR need not consider an alternative whose effect cannot be reasonably ascertained and whose implementation is remote and speculative.

7.2 Project Objectives

Pursuant to the State CEQA Guidelines, Section 15124(b), the description of the project includes the following statement of objectives for the Edelweiss Sustainable Farms project, including the underlying purpose of the project and its benefits, which can be used by the decision makers to help identify and evaluate a reasonable range of alternatives, as well as make findings and a statement of overriding considerations, if necessary. In order to ensure the functional integrity, economic viability, environmental sensitivity, and positive aesthetic contribution of the project, the following project objectives were established:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;
- Be responsible civic and corporate citizens by providing employment opportunities to the City of Blythe and ensuring project licensing is compliant with the State of California cannabis business licensing;
- Bring a sustainable and expandable model of commerce to Blythe;
- Diversify Blythe's economic and general commercial base;
- Bring economic growth to Blythe including employment, taxes and an associated multiplier effect; and
- Provide a legal holistic, sustainable cannabis option to patients and consumers in Blythe.

7.3 Summary of Project Impacts

Project- and cumulative-level impacts associated with implementation of the proposed project are evaluated in Sections 4.1 through 4.15 of this Draft EIR. As identified in **Table 4.0-1**, in Chapter 1.0 (Executive Summary), construction and/or operation of the proposed project would have the potential to cause the following significant but mitigable environmental impacts:

- Impact AQ-1: The project will involve ground disturbing activities resulting in windborne erosion and fugitive dust emissions.
- Impact BIO-1: The project would result in direct impacts to a sensitive and protected species, the burrowing owl and suitable habitat for this species.

- Impact GEO-1: The project would require grading and other construction activities which could result in seismic-related ground failure, including liquefaction, ground subsistence, and soil collapse.
- Impact GEO-2: The project would result in im pacts related to soil erosion, caused by windborne, waterborne, and human-related activities.
- Impact GEO-3: The project involves significant grading and the expansion potential of the surface soil could impact the foundational safety of the project site,
- Impact GEO-4: The project would impact significant, nonrenewable paleontological resources in the undisturbed native soils below the surface.
- Impact HAZ-1: The project would use, handle, and store hazardous materials which could result in impacts due to accidental release.
- Impact HAZ-2: The project would result in potential impacts related to cannabis disposal.
- Impact HAZ-3: The project's use of high-powered lights, which could contain hazardous components that could impact the environment during disposal, and are not recyclable.
- Impact HAZ-4: The project would result in impacts regarding electrical and fire hazards.
- Impact HWQ-1: The project could violate water quality standards and degrade surface or ground water quality.

7.4 Alternatives Considered & Rejected

State CEQA Guidelines Section 15126.6(c) requires an EIR to identify any alternatives that were considered by the lead agency but were rejected as infeasible during the scoping process, and to briefly explain the reasons underlying the agency's determination. Additionally, alternatives may be eliminated from detailed consideration in the EIR if they fail to meet most of the project objectives, or do not avoid any significant environmental effects. This section identifies the alternative considered but rejected as infeasible.

CEQA Guidelines requires examination of an alternative location for the project if such locations would result in the avoidance of or lessening of significant impacts. The project objectives specifically relate to the existing project property, which currently operates as a seasonal agricultural field.

Moreover, the location of the property, with surrounding agricultural and commercial uses adjacent to the I-10 freeway, a major commerce corridor, provides a unique location for the proposed use. In addition to the foregoing, the property owner does not own or control any other suitable properties in the area, and was unable to identify an alternative location that is available for purchase and that would substantially reduce any of the significant impacts of the proposed project; therefore, the relocation of the proposed project is not considered as a viable alternative.

7.5 Alternatives Evaluated in Detail

The following alternatives were selected for evaluation in this Draft EIR:

1. Alternative 1 – No Project

The project site, under this Alternative, would remain in its current and existing condition as an agricultural lot. Seasonal farming operations would continue at the site under Alternative 1. No development would occur at the site. The existing visual character and visual resources would remain the same, and none of the impacts of the project would occur.

2. Alternative 2 – Reduced Density

Under this Alternative, the project would develop a reduced density cannabis project. Alternative 2 would reduce the number of buildings onsite by half. This Alternative would develop buildings 1 through 6, on approximately 20 of the acres of the eastern portion of the site. The western portion of the site would be vacant and/or available for continued farming activities.

3. Alternative 3 – Cannabis Development/Leased Buildings

Under this Alternative, the property would be developed with commercial buildings available for lease for individual cannabis businesses. In Alternative 3, multiple cannabis businesses could lease the onsite buildings for individual cannabis-related operations.

4. Alternative 4 – General Commercial General Plan and Zoning Development

The existing land use and zoning designation for the project property is General Commercial. Under this Alternative, the property would be built as a typical general commercial development within General Commercial land use and zoning designations established by the City of Blythe. According to Section 17.08.010 of the Blythe Municipal Code uses allowed within General Commercial zones could include automobile servicing, parking, or sales/rentals, eating and drinking establishments, (drive through) food and beverage sales, transient occupancies (hotels, motel), administration/professional services (i.e., offices), animal boarding, health care, and grooming facilities, laundry services, and recreational/fitness facilities. These uses are permitted by right within the General Commercial zone.

7.5.1 Alternative 1 – No Project

According to CEQA Guidelines Section 15126.6 (e) the analysis of alternatives must include the specific alternative of “No Project.” The purpose of describing and analyzing a No Project alternative is to allow decision makers to compare the impacts of approving the proposed project with the impacts of not approving the proposed project. Under the No Project Alternative (“Alternative 1”), the project would remain in its current and existing condition as an agricultural lot, with City zoning for General Commercial uses that would allow for subsequent commercial development. Currently, seasonal farming operations would continue at the site under Alternative 1. The existing visual character and

visual resources would remain the same, and none of the significant impacts of the project would occur. This Alternative will be disclosed and discussed briefly in the Draft EIR, but it will not be analyzed in detail. A comparative analysis of impacts for Alternative 1 is provided below:

Aesthetics

Under the No Project Alternative, the visual character of the project site, which is currently characterized by agricultural land, would remain the same. The views of the surrounding distant mountains to the north, south and west would remain unobstructed when viewed from the surrounding public roadways, since development would not occur onsite. However, existing man-made structures, landscaping, and public facilities currently partially obstruct the views of these landscapes when viewed from offsite areas (i.e., public streets). Alternative 1 does not propose development on the project site, therefore, the existing scenic vista would not change as a result of the No Project Alternative. Therefore, Alternative 1 would not substantially impact the existing visual character or scenic vista. Additionally, Alternative 1 would not increase lighting in the area since no development would occur under this Alternative.

Compared to the project, Alternative 1 would result in less impacts to aesthetic resources, such as scenic vistas, scenic resources, and light and glare, since the No Project Alternative would not result in development of the project site. The less than significant impacts associated with scenic vistas, scenic quality, and light and glare as a result of the proposed project, would not occur under Alternative 1. Alternative 1 would result in no impacts. Both Alternative 1 and the proposed project would not result in significant and unavoidable impacts.

Air Quality

Under Alternative 1, no land development disturbance, construction or operation would occur on the property. The existing agricultural operations involving row crop cultivation and associated seasonal activities would likely continue to make use of the site based on historic precedent. The associated emissions from seasonal farming equipment operation, employee vehicles, and soil disturbance would continue to occur at the disposition of the site operator. The current MDAQMD rules and measures applicable at the regional level toward air quality attainment would remain unaffected by this Alternative. Compared to the proposed project, air quality emissions under this Alternative would be effectively null or less than significant.

Biological Resources

The project site has operated as an agricultural field for several decades. Approximately 26 acres of the project site consists of agricultural row crops. This area has been tilled and harvested since at least 1948, based on historical aerial imagery. The terrain in most of the project area is relatively level due to past agricultural operations, except for the existing drainage channels north, east and west of the site, and the PVID C Canal east of the easternmost drainage channel of the project. The

southwestern corner of the site is characterized by a row of trees and shrubs which have been watered by a continuous leak in the irrigation channel. This vegetation was determined to have no significant habitat value because no listed or sensitive plant, bird, mammal, amphibian, or reptile species, or bird nests were found in the artificial oasis and the site does not have significant value to wildlife based on observations and available information. In addition, the removal of this vegetation is expected to occur with maintenance and repair of the channel, which will occur with or without the project.

Under Alternative 1, the project would remain in its current condition as a seasonal agricultural field. Alternative 1 would avoid construction of the project site, therefore, the No Project Alternative would not result in impacts to biological resources because the operations would not change.

As previously stated, Alternative 1 would continue to operate as an agricultural field and no construction would occur. The site has been continually disturbed by the growth and harvesting of agricultural products. The earthen levees that surround the project area as part of the existing drainage channels are considered suitable habitat for burrowing owl foraging. Per the conclusions in **Section 4.3, *Biological Resources***, the development of the proposed project may result in impacts to burrowing owls. However, these impacts would be mitigated to less than significant levels with the implementation of **Mitigation Measure BIO-1***,* which requires a burrowing owl clearance survey to be performed by a qualified biologist not more than 14 days prior to any site disturbance (grubbing, grading, and construction).

Alternative 1 would result in less impacts than the proposed project; however, neither Alternative 1 nor the proposed project would result in any significant and unavoidable impacts.

Cultural Resources

The project area consists entirely of leveled and irrigated farmland that is currently used to grow agricultural products. The ground surface has been extensively disturbed by past grade adjustment, ongoing agricultural use and, along the edges, the construction of the adjacent canal and roadways. Under Alternative 1, the project would remain in its current condition and would continue to operate as a seasonal agricultural field. Alternative 1 would avoid construction of the project site, therefore, the No Project Alternative would not result in impacts to cultural resources.

Per the conclusions in **Section 4.4, *Cultural Resources***, of this Draft EIR, the development of the proposed project would not result in significant impacts to cultural resources because of the extensive site disturbance and past and current agricultural operations. Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. Therefore, the proposed project would be required to comply with General Plan Policy 25, which necessitate that projects within the City protect archaeologic, historic, and paleontologic resources for their aesthetic, scientific, educational, and cultural value by requiring a records search in areas of

high archaeological sensitivity, and requiring sponsors of projects on sites where probable cause for discovery of archaeological resources retain a consulting archaeologist to survey the project site. Policy 25 also states that:

- In the event that any cultural resources are discovered during clearing, grading or construction, project operations shall cease until a qualified archaeologist has evaluated the situation, in consultation with the City, that are consistent with State law.
- If human skeleton remains are encountered during construction of a project, the County Coroner shall be notified. If the remains are Native American, the coroner has 24-hours to notify the Native American Heritage Commission.
- Any cultural resources found on the proposed project site will be recorded or described in a professional report and submitted to the University of California at Riverside.

General Plan Policy 25 is compliant with California Health and Safety Code Section 7050.5, and the CEQA Guidelines Section 15064.5. **Section 4.4** concluded that since General Plan Policy 25 is considered a standard condition for development projects within the City, mitigation is not required, and impacts of the proposed project would be less than significant.

Since Alternative 1 would continue operating as an agricultural field and would not disturb soils deeper than those already disturbed, no new impacts would occur. Alternative 1 would result in reduced impacts compared to the proposed project, however, both the proposed project and Alternative 1 would not result in significant and unavoidable impacts to cultural resources.

Energy Resources

The additional consumption of energy would not occur at the project property under Alternative 1 since this Alternative does not propose development. The project site would remain as a seasonal agricultural property. Since Alternative 1 would not involve construction or a change in operation, energy consumption that typically occurs during construction and operational activities would not occur with Alternative 1, and the No Project Alternative would result in no impacts to energy resources. Compared to the proposed project, the No Project Alternative would result in reduced impacts to energy resources.

Geology and Soils

The project site currently operates as a seasonal agricultural field. The site would remain in the same condition under Alternative 1. The site is not located near an Alquist-Priolo Earthquake fault zone. Alternative 1 would not result in the development of habitable structures onsite, and no septic systems or alternative wastewater disposal systems are proposed with Alternative 1. No impacts related to loss of topsoil, sedimentation, erosion, and landform alterations associated with the construction of the site is anticipated with the No Project Alternative. Alternative 1 would not result in impacts to geology and soils. Compared to Alternative 1, the proposed project would result in

increased impacts to geology and soils; however, these impacts are mitigable to less than significant levels. Neither project would result in significant and unavoidable impacts.

Greenhouse Gas Emissions

Alternative 1 would result in no new sources of greenhouse gas emissions, given that no land development disturbance, construction or operation would occur on the property. The existing agricultural operations involving row crop cultivation and associated seasonal activities would continue. The associated greenhouse emissions from seasonal farming equipment operation and employee vehicles would continue to occur at the disposition of the site operator. The current greenhouse gas reduction policies applicable at the regional and state level toward addressing climate change would remain unaffected by this Alternative. Compared to the proposed project, greenhouse gas emissions under this Alternative would be effectively null or less than significant.

Hazards and Hazardous Materials

Alternative 1 would not introduce, use, store, or dispose of any potentially new hazardous materials related to construction activities or operational activities at the site. Alternative 1 would continue to operate as a seasonal agricultural field.

There would be no uses onsite that would potentially create a hazardous risk to the public or environment or any activities that would inhibit any established hazard evacuation plan. The proposed project would implement safety procedures when using, handling, or storing hazardous materials to ensure less than significant impacts. Compared to the proposed project, impacts to hazards and hazardous materials would be reduced in Alternative 1, but neither would cause a significant and unavoidable impact.

Hydrology and Water Quality

Under Alternative 1, the property would maintain its current farmland condition, which involves flood surface irrigation controls on level ground, served by existing PVID irrigation facilities. Alternative 1 would not influence the existing demand for PVID irrigation water or the seasonal land disturbance associated with the surface irrigation systems, cultivation, and harvesting activities. The regulatory permits pertaining to hydrology and water quality that apply to land development activities would not be applicable. Compared to the proposed project, Alternative 1 would not result in measurable changes or impacts to hydrology, waste discharge requirements, groundwater management, flooding, erosion, siltation or other relevant aspects of water quality.

Noise

The project site currently operates as a seasonal agricultural property. In its existing condition, the property contributes to the existing ambient noise environment during agricultural operation of the site. These include the use of farming equipment and vehicles to till and fertilize the site. However,

the noise and vibration generated by the agricultural operations is a part of the existing noise environment since the site is surrounded by agricultural properties to the north (separated by Hobsonway), west, and south (separated by Interstate 10 freeway). Therefore, this Alternative would not degrade the noise environment or result in an increase in groundborne vibration to significant levels.

Construction and operational noise under the proposed project are not anticipated to result in significant impacts, with the implementation of mitigation measures. However, compared to the proposed project, the No Project Alternative would not produce increased noise or vibration impacts.

Public Services

Under Alternative 1, the project site would not introduce residents or employees, or uses that would place additional burden on the City of Blythe's public services. There would not be an increased demand in police, fire, and emergency services, or schools, public facilities, and parks. Alternative 1 would result in no impacts to public services.

The project will result in less than significant impacts to public services. The project will be required to pay fees to the City for the funding of public facilities including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings. Compared to the proposed project, Alternative 1 would result in reduced impacts to public services. Neither scenario would result in significant and unavoidable impacts.

Transportation

The No Project/No Build Alternative would not result in any increase of transportation or traffic since Alternative 1 does not propose development on the property.

In comparison to the proposed project, Alternative 1 would not result in impacts related to vehicle traffic during construction and operational activities.

Compared to the proposed project, Alternative 1 would result in less than significant impacts since the No Project/No Build Alternative the project would continue to operate as an agricultural property. Alternative 1 would not include an increased density or a substantial amount of additional vehicle trips. Neither project would result in significant and unavoidable impacts.

Tribal Cultural Resources

Under Alternative 1, the property would not impact Tribal cultural resources, and tribal consultation would not be required since the No Project Alternative does not propose development on the project site.

As determined in **Section 4.13, *Tribal Cultural Resources***, the proposed project would result in less than significant impacts to Tribal cultural resources with the implementation of General Plan Policy

25 (see discussion of Cultural Resources above). Alternative 1 would avoid impacts associated with potential disturbance to tribal cultural resources and would therefore have less of an impact compared to the proposed project. However, neither Alternative 1 nor the proposed project have significant and unavoidable Tribal cultural impacts.

Utilities and Service Systems

The project site currently operates as a seasonal agricultural field. The site would remain in the same condition under Alternative 1 and would result in no impacts to utilities regarding water service and supply, wastewater collection and treatment, solid waste, energy, and, natural gas and telecommunications. Since the No Project/No Build Alternative does not propose development of the project site, this Alternative would result in less impacts to utilities compared to the proposed project. However, neither scenario would have a significant impact on these systems.

Summary of Comparative Impacts

A summary comparison of impacts associated with the project alternatives is provided in **Table 7-14*, Comparison of Alternatives to Project***. The No Project Alternative would not result in impacts to the project site since there would be no development. As described above, the No Project Alternative would eliminate potential impacts associated with construction and operation related to aesthetics, air quality, biological resources, energy resources, geology and soils, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, public services, transportation, and utilities, compared to the proposed project.

Relationship to Project Objectives

While all potentially significant impacts would be avoided with the No Project Alternative, the following project objectives would not be achieved with Alternative 1:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;
- Be responsible civic and corporate citizens by providing employment opportunities to the City of Blythe and ensuring project licensing is compliant with the State of California cannabis business licensing;
- Bring a sustainable and expandable model of commerce to Blythe;
- Diversify Blythe's economic and general commercial base;
- Bring economic growth to Blythe including employment, taxes and an associated multiplier effect; and
- Provide a legal holistic, sustainable cannabis option to patients and consumers in Blythe.

7.5.2 Alternative 2 – Reduced Density

Under the Reduced Density Alternative ("Alternative 2"), the project would develop a reduced density cannabis project. Alternative 2 would reduce the number of buildings onsite by half. This Alternative would develop buildings 1 through 6, on approximately 20 acres of the eastern portion of the site. The western 12-acre portion of the site would be vacant and/or available for continued farming activities or other future commercial development. The buildings proposed for Alternative 2 are indicated in the table, below.

Table 7-1 Alternative 2 Building Area Summary

Building	Stories	Area (Square Feet)
1	2	46,132
2	1	46,848
3	1	43,776
4	1	43,776
5	1	43,776
6	1	43,776
Total		**268,084 square feet**

This Alternative would reduce the development and operational area, thus reducing the traffic generated from this Alternative since the site would reduce the number of employees required for operations. A comparative analysis of impacts for Alternative 2 is provided below.

Aesthetics

Under the Reduced Density Alternative, impacts to the surrounding scenic vistas and visual character would occur but would be reduced because this Alternative would not develop buildings 7 through 12 on the western portion of the project site. Design features of the Reduced Density Alternative, including architecture, landscaping, and development standards are all required to adhere to the design guidelines established for the proposed project.

Like the proposed project, the Reduced Density Alternative would impact existing scenic vistas viewed from the north, west, and south of the project. When viewed on the public rights-of-way (Hobsonway to the north and Interstate 10 to the south) the distant mountains to the north and south are unobstructed by the property due to its undeveloped character. Some locations along the public rights-of-ways, where the scenic vistas are most likely to be viewed, provide unobstructed views of the mountains, and will continue to be seen at the western portion of the site, since development is not proposed in this area. Thus, impacts would be somewhat reduced.

The Reduced Density Alternative would result in reduced impacts to light and glare, compared to the proposed project. Both Alternative 2 and the proposed project would result in the development and operation of buildings for the operation of cannabis cultivation. However, Alternative 2 would result

in the development of half of the buildings, thus, reducing the light emitted from the project site by half. The western portion of the site would remain in its current condition. As described in **Section 4.1**, the photometrics prepared for these lights showed that the light generated from the project's lighting would not significantly impact the surrounding properties.

The Reduced Density Alternative would result in reduced impacts to aesthetics compared to the proposed project. However, as determined in **Section 4.1, *Aesthetics***, impacts to aesthetic resources are less than significant and do not require the implementation of mitigation measures. Impacts associated with views of scenic vistas, scenic resources, visual character, and light and glare would be less than significant under both Alternative 2 and the proposed project.

Air Quality

Alternative 2 entails a reduced utilization of the site by approximately 12 acres and a reduction in the total building area by about half, when compared to the preferred alternative. This Alternative would involve up to six (6) cultivation buildings with a combined floor area of approximately 268,084 square feet and the corresponding parking lot and landscaping facilities on approximately 20 acres. The remaining 12 acres of the site would not form part of the project and would likely be maintained as farmland or be developed in the future in accordance with the General Commercial designation.

The reduction in building area and associated improvements occupying a smaller area (20 acres) would entail a proportional reduction in the scope and duration of construction activities, thus translating to lower emission levels of construction-related criteria air pollutants compared to the proposed project. Pertaining to operations (life of the project), Alternative 2 would also involve proportionately lower emission levels due to the reduced building areas, lower energy consumption, and associated trip generation. However, given that the proposed project did not surpass any of the established MDAQMD standards and resulted in less than significant impacts pertaining to air quality, the lower construction and operational emission levels expected under Alternative 2 would not result in a lower or different finding of significance. Alternative 2 and the proposed project would both be expected to result in less than significant impacts.

Biological Resources

Under Alternative 2, impacts to biological resources would be reduced compared to the proposed project, because Alternative 2 proposes to develop less of the project area. Alternative 2 would develop 20 acres of the project site with six buildings for the cultivation of cannabis, and the remaining portion would remain operating as a seasonal agricultural field.

As established in **Section 4.3, *Biological Resources***, development of the project property would potentially impact one sensitive and protected species, the burrowing owl. Although burrowing owls were not observed onsite during the field investigation, the earthen levees surrounding the site provides suitable habitat for burrowing owl foraging, and the species and the owls can take up

residence on the site at any time. Development of the site while burrowing owls are present would have a potentially significant impact on this species. Therefore, mitigation is required to reduce the impact to less than significant levels. Mitigation in the form of a pre-construction burrowing owl survey shall be performed by a qualified biologist not more than 14 days prior to any site disturbance is included as **Mitigation Measure BIO-1**. The mitigation measure would also be imposed for development of Alternative 2 to reduce impacts to biological resources to less than significant levels.

Since Alternative 2 would develop less area on the project site, impacts to biological resources would be reduced compared to the proposed project, which would develop the entire project site. However, both projects would be required to implement **Mitigation Measure BIO-1** to reduce potential impacts to burrowing owls to less than significant levels. Neither Alternative 2 nor the proposed project result in any significant and unavoidable impacts to biological resources.

Cultural Resources

Under Alternative 2, the project would develop the eastern 20 acres of the project site for cannabis cultivation operations, while the remaining western 12 acres would continue to operate as an agricultural field. Development would not occur on the western portion of the project site.

Per the conclusions in **Section 4.4, *Cultural Resources***, the development of the proposed project would not result in impacts to cultural resources because of the extensive site disturbance and past and current agricultural operations. Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. Therefore, the project will be subject to standard requirements and compliance with federal and State law as it relates to historical and archaeological resources. Since these regulations are standard requirements, they are not considered mitigation measures. Both the proposed project and Alternative 2 would implement the standard requirements, resulting in less than significant impacts associated with potential disturbance to buried cultural resources.

Since Alternative 2 would develop less area on the project site, impacts to cultural resources could be reduced compared to the proposed project, which would develop the entire project site. However, as previously stated, both projects would be required to comply with standard requirements, and federal and State law to avoid impacts to cultural resources. Neither Alternative 2 nor the proposed project would result in any significant and unavoidable cultural impacts.

Energy

Development and operation of the Reduced Density Alternative would result in an increase of energy consumption compared to the site's existing conditions, however, it would also result in reduced energy consumption compared to the proposed project. Additional discussion is included subsequently.

Construction

Short-term energy consumption related to construction activities would occur during development of both Alternative 2 and the proposed project. Construction-related energy use would include the consumption of electricity for tools and power required for constriction trailers. Petroleum fuels, such as gasoline and diesel, would also be required during construction for the operation of machinery, large equipment, and employee vehicle trips.

Compared to the project, Alternative 2 proposes to reduce the site from twelve proposed buildings to six. Construction of the six buildings would occupy the eastern portion of the site. Development of the western portion of the project would not occur. Therefore, the Reduced Density Alternative would result in reduced energy consumed during construction of the site.

As demonstrated in **Section 4.5, *Energy Resources***, the use of electricity and petroleum during construction of the proposed project would not be inefficient, wasteful or unnecessary. Additionally, construction-related energy consumption at the site would cease at the conclusion of construction. Neither the Reduced Density Alternative nor the proposed project would result in significant impacts to energy resources during construction of the site.

Operation

The operation of the 34-acre site would result in an increase of energy demand, via electricity and petroleum compared to existing conditions. Alternative 2 proposes a reduced density project, therefore, Alternative 2 would result in reduced consumption of energy during operation of the site. This Alternative would construct and operate six buildings, instead of twelve buildings proposed by the project. Therefore, Alternative 2 would consume approximately 69,642 MWh of electricity per year. This is approximately 50 percent less electricity consumed compared to the proposed project. Additionally, Alternative 2 would consume 147,795.6 gallons of petroleum during operation of the six buildings. Consistent with the analysis in **Section 4.5, *Energy Resources***, the use of electricity and petroleum fuel during operation of Alternative 2 would not be excessive, wasteful, or unnecessary.

The construction and operation of both the Reduced Density Alternative and the proposed project would result in an increase of energy demand in the area, due to the proposed cannabis facility. However, Alternative 2 would result in less consumption of energy resources during construction and operation, due to the reduced density of the site.

Neither the proposed project nor Alternative 2 would result in significant impacts regarding energy resources.

Geology and Soils

The project site currently operates as an agricultural field. Under Alternative 2, the site would develop six buildings for the cultivation and manufacturing of cannabis.

As determined in **Section 4.6, *Geology and Soils,*** the site is not located in or near an Alquist-Priolo Earthquake fault zone.

To mitigate impacts from seismic events, structures proposed in Alternative 2 would be required to be developed to the most current state and local standards regarding building construction. The project site is not located near a slope, and landslides would not occur at the site. Therefore, the structures would not be impacted by rockslides or landslides. No septic systems are proposed. The potential for impacts related to loss of topsoil, sedimentation, erosion, and landform alterations associated with Alternative 2 is anticipated to be reduced compared to the proposed project, because Alternative 2 would only disturb approximately 20 acres of the site. Although, the 20 acres would be disturbed, it would also be restabilized with impervious surfaces and landscaped areas. Therefore, impacts would be less than significant.

Similar to the proposed project, development of Alternative 2 would be required to implement the mitigation measures established in the project-specific Geotechnical Evaluation (**Appendix G**) and implement paleontological monitoring. These mitigation measures would apply equally to Alternative 2's impacts and reduce them to less than significant levels. Alternative 2 would result in similar impacts to geology and soils compared to the proposed project.

Greenhouse Gas Emissions

Alternative 2 entails a reduced utilization of the site by approximately 12 acres and a reduction in the total building area by about half, when compared to the preferred alternative. This alternative would involve up to six (6) cultivation buildings with a combined floor area of approximately 268,084 square feet and the corresponding parking lot and landscaping facilities on approximately 20 acres. The remaining 12 acres of the site would not form part of the project and therefore would likely be maintained as farmland or be developed in the future in accordance with the General Commercial designation.

The considerable reduction in building area and associated improvements occupying a relatively smaller area (20 acres) would entail a proportional reduction in the scope and duration of construction activities, thus translating to lower construction-related GHG emission levels compared to the proposed project. This reduction is explained by a decrease in construction equipment use, materials, worker trips, and associated fuels necessary to construct the smaller facilities. Pertaining to operations (life of the project), Alternative 2 would also involve proportionately lower GHG emission levels due to the reduced building areas, associated lower energy consumption, and trip generation. However, given that the proposed project did not surpass any of the established MDAQMD standards and resulted in less than significant impacts pertaining to GHG emissions, the lower construction and operational emission levels expected under Alternative 2 would not result in a different finding of significance. Alternative 2 and the proposed project would both be expected to

result in less than significant impacts. Disposition and use of the remaining 12 acres that are not utilized by Alternative 2 would be independent and not a part.

Hazards and Hazardous Materials

Under Alternative 2, the property would develop six buildings for the cannabis cultivation and manufacturing operations on approximately 20 acres of the 34-acre site. Development of the remaining area would not occur, and it would continue to operate as a seasonal agricultural field.

Indoor cultivation activities may include the storage and use of hazardous materials, however, the facilities are not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project and its surroundings or create a significant hazard due to accidental release.

Construction

Construction of Alternative 2 is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances in a manner similar to the proposed project. Hazardous materials would be delivered, stored, and handled to manufacturer instructions and industry standards. Additionally, the contractor will be required to identify a controlled staging area within the project limits for storing materials and equipment, as required by a Storm Water Pollution Prevention Plan (SWPPP). This is implemented by **Mitigation Measure HAZ-1.** Similar to the proposed project, the Reduced Density Alternative would implement safety procedures when using, handling, storing hazardous materials and impacts would be less than significant with the implementation of **HAZ-1**.

Operation

As previously stated, indoor cultivation activities may include the storage and use of hazardous materials, however, the facilities are not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project and its surroundings or create a significant hazard due to accidental release. The Reduced Density Alternative would implement safety procedures when using, handling, storing hazardous materials and impacts would be less than significant.

Similar to the proposed project, if Alternative 2 were to store hazardous materials in quantities greater than 55 gallons of liquid, 500 pounds of solid, and 200 cubic feet of compressed gas, the applicant would be required to submit a Hazardous Materials Business Plan (HMBP) to the Riverside County Department of Environmental Health (DEH) and Fire Department. This is implemented by **Mitigation Measure HAZ-2.** With the implementation of **HAZ-2** impacts would be reduced to less than significant levels.

Additionally, federal regulations protect employees handling hazardous materials administered by the Occupational Safety and Health Administration (OSHA) and codified in 29 Code of Federal

Regulations (CFR) Part 1910. The project is required to adhere to OSHA regulations in order to ensure employee safety and that proper handling and operating procedures occur at the site. This is implemented by **Mitigation Measure HAZ-3.** Alternative 2 would also be required to adhere to **HAZ-3.** Impacts would be reduced to less than significant levels.

The State of California provides additional regulations regarding the accidental release of hazardous materials (California Accidental Release Program), and regulations specific to cannabis business operations and disposal of wastes. According to Section 17223 of the Department of Cannabis Control (DCC) Medicinal and Adult-Use Commercial Cannabis Regulations, California Code of Regulations (CCR) Title 4, a cannabis licensee shall dispose of all waste in accordance with the Public Resources Code and any other applicable state and local laws. It is the responsibility of the licensee to properly evaluate waste to determine if it should be designated and handled as a hazardous waste, as defined in Public Resources Code Section 40141. Both the project and Alternative 2 would be required to comply with the cannabis disposal practices implemented by the State and included as **Mitigation Measure HAZ-4**. Impacts are reduced to less than significant levels.

Additionally, indoor cultivation operations may use high powered lights, which could contain hazardous components that could enter the environment during disposal. High-intensity discharge (HID) bulbs are not recyclable, and each bulb contains approximately 30 mg of mercury and other toxins. However, light-emitting diodes (LEDs) are both more energy efficient and include less hazardous materials than HID bulbs. Both the proposed project and Alternative 2 shall dispose of light bulbs used for indoor cultivation at a certified facility that accepts commercial hazardous waste. The closest hazardous waste site to the project is Environmental Logistics, located at 140 West Monte Avenue, in Bloomington California. This is implemented by **Mitigation Measure HAZ-5.** With the implementation of **HAZ-5** impacts would be reduced to less than significant levels.

Maintenance of the proposed buildings would not result in the use of hazardous materials in amounts that exceed what is typically required for commercial buildings. The handling, application, and storage of cleaning agents, building maintenance products, paints, solvents and other related substances is expected to occur within the project in a manner typical of similar projects throughout the City to carry out the necessary operations in each facility or use. However, these materials would not be present in sufficient quantities to pose a significant hazard to public health and safety, or the environment.

As determined in **Section 4.8, *Hazards and Hazardous Materials***, the site is not located within one-quarter mile of an existing or proposed school, therefore, neither scenario would result in significant impacts to a school facility.

Construction and operation of 20 acres of the 34-acre site, under Alternative 2, will marginally increase vehicular transportation along the local major roadways in the City, including Hobsonway. Primary access to the site would be expected to occur along Hobsonway. This roadway will provide

private and emergency access in to and out of the project property. No alteration to existing emergency evacuation routes would be proposed. Therefore, impacts would be less than significant for both the proposed project and Alternative 2.

As with the proposed project, a Traffic Control Plan will be required as a condition of approval to be implemented throughout all construction activities. This plan will reduce potential impacts that may arise due to conflicts with construction traffic. Project access points would be reviewed by the Fire Department, to ensure adequate access for emergency vehicles. Additionally, the project and Alternative 2 would be required to have certification from and comply with local jurisdictions, such as the City of Blythe and the Fire Department, to ensure building, electrical, and fire codes are implemented at the site. This shall be required as **Mitigation Measure HAZ-6**. The implementation of **Mitigation Measure HAZ-6** will ensure project impacts regarding electrical and fire hazards are reduced to less than significant.

Finally, the property is not located in a Moderate, High, or Very High Fire Hazard Severity Zone (VHFHSZ) according to CALFIRE's High Fire Hazard Severity Zones in State Responsible Areas Map. Therefore, impacts of exposing people or structures to a significant risk involving wildland fires are expected to be less than significant for both the Reduced Density Alternative and the proposed project.

Overall, the proposed building locations and design would be consistent with applicable State and local construction requirements and standards under both scenarios. Hazardous materials used during operation of the site will be handled to manufacturer and industry standards. Additionally, the project will implement and adhere to federal, State, and regional regulatory standards. Compared to the proposed project, the Reduced Density Alternative would result in similar and reduced, less than significant impacts to hazards and hazardous materials. Neither scenario would result in significant or unavoidable impacts.

Hydrology and Water Quality

The disturbed area associated with Alternative 2 represents a reduction of approximately 12 acres compared to the proposed project. A reduced number of buildings and associated improvements (parking lot, landscaping, utilities) would occupy a total area of approximately 20 acres.

Despite occupying a smaller area, Alternative 2 would be subject to the same regulatory requirements, permit coverages, and engineering design approvals pertaining to hydrology and water quality standards. During the period of construction (site clearing, grading, and vertical construction), Alternative 2 would warrant coverage under the State's National Pollution Discharge Elimination System (NPDES) Construction General Permit and would be exercised through the design and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to account for all land disturbance activities. The SWPPP would establish the site-specific temporary measures to prevent erosion, siltation, contamination and other impacts associated with construction. The SWPPP is

required by **Mitigation Measure HWQ-1**. As a condition of engineering approval, Alternative 2 would be required to include an adequate storm drain and retention design specific to the reduced area and associated site plan. Alternative 2 would reasonably represent a lower water demand based on the reduced building area.

Alternative 2 would require compliance with regulatory requirements and the associated stormwater controls. Therefore, after following the regulatory program mandates designed specifically to prevent hydrologic, stormwater and surface water impairments, the impacts resulting from Alternative 2 would be similar to the proposed project and less than significant with mitigation.

Noise

The Reduced Density Alternative would result in the development and operation of 20 acres of the site, resulting in an increase in the noise environment compared to the existing conditions.

Construction

The Reduced Density Alternative proposes the construction and operation of six buildings for cannabis cultivation and manufacturing on approximately 20 acres of the project site. Similar to the proposed project, construction of Alternative 2 would increase the ambient noise level because the site would be developed. However, as demonstrated in **Section 4.10**, ***Noise***, construction of the site would not result in significant noise. Impacts were determined to be less than significant. Therefore, since Alternative 2 proposes to only develop the eastern portion of the site, the Reduced Density Alternative would also result in less than significant noise levels during construction.

Similar to the proposed project, Alternative 2 would not generate significant groundborne vibrations. As determined in **Section 4.10**, ***Noise***, the transient construction vibration velocity levels are estimated to range from 0.000 to 0.036 PPV in/sec at distances ranging from 46 to 1,529 feet from the project construction activity. Based on maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec) for older residential structures or commercial buildings, the typical project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations. Therefore, vibration impacts due to the typical project construction activities are considered less than significant. Since Alternative 2 would develop the eastern project area (the area further from the nearest sensitive receiver structure), no construction-related vibration impacts are anticipated. Neither the proposed project nor Alternative 2 would result in significant impacts to noise or vibration during construction.

Operation

Operational noise associated with project-generated traffic would be less under Alternative 2 and is not anticipated to be significant. Alternative 2 would include the operation of six cannabis cultivation buildings on the eastern portion of the site. As demonstrated in **Section 4.10**, ***Noise***, the closest noise sensitive receiver is a residential structure approximately 46 feet west of the project boundary. The

project-specific Noise Report provided by Urban Crossroads, Inc. determined that the operation of the proposed project would not result in increased noise impacts that would be significant to the residential structure. Therefore, since Alternative 2 would develop 20 acres of the site, with half of the number of buildings, and on the eastern portion of the site (away from the noise sensitive receiver), the Reduced Density Alternative would reduce noise compared to the proposed project. However, both the proposed project and Reduced Density Alternative would result in less than significant impacts.

Operational noise and groundborne vibration from the Reduced Density Alternative will not be significant. Additionally, because this Alternative would involve less total construction and less daily vehicle trips, the Reduced Density Alternative would result in reduced noise impacts, as compared to the proposed project, but both would be less than significant.

Public Services

The Reduced Density Alternative project would introduce uses that would place additional demand on the City of Blythe's public services. There would be an increased demand in police services, fire and emergency services as a result of the development of Alternative 2. However, like the proposed project, Alternative 2 would be required to comply with applicable laws and codes imposed by the City and Riverside County Fire Department and to pay applicable Development Impact Fees to fund public facilities, including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings.

Alternative 2 would result in reduced impacts to public services compared to the proposed project since the Alternative would reduce the density and intensity of development onsite. However, both scenarios would result in less than significant impacts.

Transportation

Short-term construction vehicle trip impacts would result from the development of the reduced project. A Traffic Control Plan will be required as a condition of approval to be implemented throughout all construction activities. However, these impacts would be generally limited to permitted construction activity hours. Additionally, construction traffic would cease once construction of the facilities were complete. Primary and secondary access to the site will occur along Hobsonway. This roadway will provide public and emergency access in to and out of the project property.

Alternative 2 operations would result in a decrease of transportation/traffic in the project area, as shown in **Table 7-2** below. **Tables 7-3, 7-4,** and **7-5** illustrate the calculations utilized.

Table 7-2 Alternative 2 Trip Generation Comparison

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Alternative 2 Trip Generation Comparison							
Proposed Project (TS)							
509,103 sf Cultivation, 24,709 Office	283	76	359	113	270	383	2,279
Reduced Project – Alt 2							
-243,375 sf Cultivation, 24,709 sf office	143	39	182	56	136	194	1,152
Alternative 2 Delta (Alternative – TS)	**140**	**37**	**177**	**57**	**134**	**189**	**1,127**

Table 7-3 Trip Generation Rates

Trip Generation Rates									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Table 7-4 Project Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
Total			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Table 7-5 Alt 2 Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	254.680 TSF	122	36	158	53	117	171	1001
Administration / Office Building	715	13.404 TSF	21	3	24	3	19	23	151
Total			**143**	**39**	**182**	**56**	**136**	**194**	**1,152**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Operation of Alternative 2 would decrease on- and off-site vehicle trips by approximately 49 percent from employees because the reduced uses under this Alternative will have less Cultivation and Processing space, and thus will generate fewer daily trips leaving the project site.

Given the 49% projected decrease in vehicle trips generated by this Alternative, intersections with vehicle delay thresholds near levels of significance could potentially be decreased by Alternative 2 project traffic. For example, an intersection which has a delay of LOS C with proposed project traffic volumes, could be decreased to LOS D with the reduction in traffic volumes associated with Alternative 2. LOS is no longer a CEQA threshold, however it is still utilized to determine consistency with the City's Circulation Element. Therefore, this Alternative could result in decreased impacts at

intersections. As is the case with the proposed project, however, mitigation through the payment of DIF fees and fair share contributions to planned improvements would be expected to reduce impacts to less than significant levels.

This Alternative is anticipated to have a lower daily VMT and per capita VMT because it generates fewer daily trips. Alternative 2 is expected to generate 49% less trips compared to the proposed project due to the decreased area of cultivation space and decreased employees. Impacts are anticipated to be less than significant.

Alternative 2 would be expected to contribute to the improvement of the local roadway system, similar to the proposed project. Overall, Alternative 2 would generate fewer daily trips on area roadways, resulting in decreased VMT impacts and potentially decreased LOS impacts, compared to the proposed project.

Tribal Cultural Resources

Alternative 2 would result in similar impacts to Tribal cultural resources as the proposed project. Additionally, both projects would be required to undergo Tribal consultation with local Tribes. Alternative 2 would be required to implement the same measures as the proposed project to reduce impacts to less than significant levels. However, neither Alternative 2 nor the proposed project have any significant and unavoidable impacts to Tribal cultural resources.

Under Alternative 2, the project would develop the eastern 20 acres of the project site for cannabis cultivation operations, while the remaining western portion would continue to operate as an agricultural field. Development would not occur on the western half of the project site.

Per the conclusions in **Section 4.13, *Tribal Cultural Resources***, the development of the proposed project would not result in impacts to cultural resources because of the extensive site disturbance and past and current agricultural operations. However, the project will be subject to standard requirements, and compliance with federal and State law as it relates to historical and archaeological resources. Since these regulations are standard requirements, they are not considered mitigation measures. Therefore, both the proposed project and Alternative 2 would result in less than significant impacts associated with potential disturbance to buried Tribal cultural resources.

Since Alternative 2 would develop less area on the project site, impacts to Tribal cultural resources would be reduced compared to the proposed project, which would develop the entire project site. However, both projects would be required to comply with standard requirements, and federal and State law to avoid impacts to Tribal cultural resources. Neither Alternative 2 nor the proposed project would result in any significant and unavoidable impacts.

Utilities and Service Systems

Under this alternative, the intensity of development is approximately 50 percent less than the proposed project and only six buildings would be built instead of twelve. As a result, demand for

water, wastewater, solid waste disposal, and energy would be less than the proposed project. However, neither Alternative 2 nor the proposed project would cause any significant and unavoidable impacts to concerning utilities.

Water

Water supply would be provided to the site by the City of Blythe. Alternative 2 would have less demand for water during construction, as a smaller area would be disturbed. Alternative 2 would have similar impacts to the proposed project since it would still result in an increase in water demand during operation of the proposed cultivation uses, and still require additional water lines to support the uses. Compared with the proposed project, Alternative 2 would have a reduction in use of water and would have a lower daily water usage. However, both projects would result in less than significant impacts, and neither scenario would result in significant and unavoidable impacts.

Wastewater

Wastewater service would also be provided to the property by CVWD. Wastewater services required for Alternative 2 would be similar to the proposed project. The sewage generated by the project would be somewhat reduced when compared to the proposed project, due to the reduced development associated with this alternative, so sewage treatment capacity would be sufficient to serve the alternative. Additional sewer lines would also be required, consistent with the proposed project, to connect to sewer mains in surrounding streets, but these would not be any greater than the lines required for the proposed project.

Both projects would result in less than significant impacts, and neither scenario would result in significant and unavoidable impacts.

Solid Waste

CR&R Environmental Services (the local waste provider) would provide the property with solid waste services. The development would require solid waste services to remove waste produced by construction activities. However, construction waste produced by Alternative 2 would not be significant and would cease after the proposed facilities were developed.

Solid waste generated by Alternative 2 would be less than the waste generated by the proposed project, because of the reduction in cultivation uses on the property. Compared to Alternative 2, the proposed project would generate greater amounts of solid waste, but impacts would be less than significant. Neither scenario would result in significant and unavoidable impacts.

Electricity

Electricity would be required for construction and operation of Alternative 2. However, it is likely that electricity consumed by Alternative 2 would be reduced as a result of developing fewer buildings

compared to the proposed project. The proposed project would be required to connect to existing power to provide electricity to the project site. It is likely that the electric power consumption and improvements required under the proposed project would be required for Alternative 2. Both projects would result in less than significant impacts to electricity. Neither project would result in significant and unavoidable impacts.

Natural Gas

Connection to natural gas, provided by Southern California Gas Company (SoCalGas), is not planned for the proposed project, and would not be needed under Alternative 2. Impacts to natural gas would remain the same as the No Project/No Build Alternative. Neither project would result in significant and unavoidable impacts.

Telecommunications

Both Alternative 2 and the proposed project would be required to connect to existing infrastructure, either by Frontier or Spectrum, to provide telecommunication services to the project site. Additional infrastructure would not be required**.** The increase of telecommunication demand for the site would be less than significant for both scenarios.

Summary of Comparative Impacts

A summary and comparison of impacts associated with the project alternatives is provided in **Table 7-14*, Comparison of Alternatives to Project***. As described above, the Reduced Density Alternative would reduce the development and operational area, thus reducing the traffic generated from this Alternative since the site would reduce the number of employees required for operations. Additionally, Alternative 2 would result in reduced impacts to air quality, energy, greenhouse gas emissions, noise, and utilities. Due to the reduced area of disturbance on the project site, Alternative 2 would result in reduced impacts to biological resources, cultural resources, hazards and hazardous materials, hydrology and water quality, public services, and tribal cultural resources, compared to the proposed project since it would not develop approximately 14 acres of the site. Alternative 2 would not result in potentially significant impacts.

Relationship to Project Objectives

The Reduced Density Alternative meets all of the objectives proposed for the project, however, due to the reduced size, it does so to a lesser degree. For example, this Alternative would generate less sales tax revenue for the City than the proposed project. This Alternative would achieve the project objective of bring economic growth to Blythe but to a lesser degree.

7.5.3 Alternative 3 – Cannabis Development/Leased Buildings

Under the Cannabis Development/Leased Buildings Alternative ("Alternative 3"), the property would be developed with commercial buildings available for lease for individual cannabis businesses. In Alternative 3, multiple cannabis businesses could lease the onsite buildings for individual cannabis-related operations. A comparative analysis of impacts for Alternative 3 is provided below:

Aesthetics

Under the Cannabis Development/Leased Buildings Alternative, impacts to the surrounding scenic vistas and aesthetic quality of the area would be similar to the proposed project because the property would be developed with the same number of buildings, in the same footprint.

Like the proposed project, the Cannabis Development/Leased Buildings Alternative would impact existing scenic vistas, such as the mountains north, west, south, and east of the project. However, as stated in **Section 4.1**, the impacts on the existing scenic views depends on the location of the viewpoint, in conjunction with features along the project's frontage, including the landscape and the location of the project buildings. Base and mid-range views of the mountains may be obstructed along the public rights-of-way, but peak views of the mountains may remain visible. Therefore, the proposed project and Alternative 3 will not completely remove the views of mountains from public viewing locations, and the views of the mountains will be visible once the motorist or pedestrian passes the project site. Also, visual relief between the proposed buildings will provide views of the north- and south-lying mountains. Therefore, similar to the project site, Alternative 3 would result in less than significant impacts to scenic vistas.

Alternative 3, like the proposed project, would develop twelve buildings for the be required to submit a Site Plan Review. The design features and development standards proposed in Alternative 3 would be subject to City review regarding architecture, landscaping, and design to ensure a high-quality design project. Alternative 3 would be required to adhere to the development standards, design features, architecture, and landscaping established in the Site Plan Review. It would be expected that development under Alternative 3 would include the same building heights as the proposed project. Therefore, the Cannabis Development/Leased Buildings Alternative would result in similar impacts to the existing visual character compared to the proposed project. Both the proposed project and Alternative 3 would result in less than significant impacts.

The Cannabis Development/Leased Buildings Alternative would result in equal impacts to light and glare, compared to the proposed project. Both Alternative 3 and the proposed project would result in the development and operation of buildings for the operation of cannabis cultivation. As described in **Section 4.1**, the photometrics prepared for these lights showed that the light generated from the project's lighting would not significantly impact the surrounding properties. Therefore, light generated from the Cannabis Development/Leased Buildings Alternative would be less than significant, similar to the project.

The Cannabis Development/Leased Buildings Alternative would in equal impacts to aesthetics compared to the proposed project. As determined in **Section 4.1, *Aesthetics***, impacts to aesthetic resources are less than significant and do not require the implementation of mitigation measures. Impacts associated with views of scenic vistas, scenic resources, visual character, and light and glare would be less than significant under both Alternative 3 and the proposed project.

Air Quality

Alternative 3 would utilize the entire project site to develop commercial buildings for lease to individual cannabis business operators. As such, the extent and scale of development would be similar to that of the proposed project, but the operation would be handled by multiple lease holders. As a result, the sustainability practices offered under the proposed project would likely not be guaranteed by individual cannabis operators.

The extent and scale of commercial building construction under Alternative 3 would be comparable to the proposed project and therefore would be expected to yield similar emission levels of construction-related criteria air pollutants to those calculated for the proposed project. However, given that the proposed project's construction-related emissions did not surpass the MDAQMD standards, the short-term construction phase of Alternative 3 would similarly be expected to occur below the thresholds.

Pertaining to operations (life of the project), Alternative 3 would involve a similar extent, scale and intensity of activities to the proposed project. Alternative 3, however, would not benefit from a unified strategy of sustainable cultivation practices as proposed by the project. As a result, a decrease in efficiency is expected pertaining to water, energy and material uses. Alternative 3 would operate similar to an Industrial Park which generates higher traffic volumes due to the multiple individual operations occurring concurrently. The site operators would likely yield higher operational emission levels to those calculated for the project, however it is expected that emissions would result in a similar Less than Significant finding. As a result, pertaining to air quality, the short-term and long-term emission levels associated with Alternative 3 would not be expected to introduce a different level of significance as determined for the proposed project.

Biological Resources

Under Alternative 3, conditions to biological resources would be similar to the proposed project.

Development of the site while burrowing owls are present would have a potentially significant impact on this species. Therefore, mitigation is required to reduce the impact to less than significant levels. Mitigation in the form of a pre-construction burrowing owl survey shall be performed by a qualified biologist not more than 14 days prior to any site disturbance is included as **Mitigation Measure BIO-1**. The mitigation measure would also be imposed for development of Alternative 3 to reduce impacts to biological resources to less than significant levels. With implementation of **Mitigation Measure**

BIO-1, impacts would be reduced to less than significant levels, and would be similar to the proposed project.

Cultural Resources

Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. Therefore, the project will be subject to standard requirements, and compliance with federal and State law as it relates to historical and archaeological resources. Since these regulations are standard requirements, they are not considered mitigation measures. Both the proposed project and Alternative 3 would implement the standard requirements, resulting in less than significant impacts associated with potential disturbance to buried cultural resources.

Development of Alternative 3 would result in the construction of the entire site, similar to the proposed project. Therefore, both projects would be required to comply with standard requirements, and federal and State law to avoid impacts to cultural resources. Neither Alternative 3 nor the proposed project would result in any significant and unavoidable cultural impacts.

Energy

Construction and operation of Alternative 3 would result in an increased demand for energy resources compared to the proposed project. Although both scenarios propose twelve buildings for the cultivation and manufacturing of cannabis, each cannabis facility would result in increased energy consumption during operation compared to the proposed project. Energy consumption during construction and operation is discussed subsequently.

Construction

Short-term energy consumption related to construction activities would occur during development of both Alternative 3 and the proposed project. Construction-related energy use would include the consumption of electricity for tools and power required for constriction trailers. Petroleum fuels, such as gasoline and diesel, would also be required during construction for the operation of machinery, large equipment, and employee vehicle trips.

Alternative 3 proposes the same site plan compared to the proposed project. Therefore, development of Alternative 3 would result in equal energy consumed during construction of the site, and, as demonstrated in **Section 4.5, *Energy Resources***, the use of electricity and petroleum during construction of the project would not be inefficient, wasteful, or unnecessary. Additionally, construction-related energy consumption at the site would cease at the conclusion of construction. Thus, neither the Cannabis Development/Leased Buildings Alternative nor the proposed project would result in significant impacts to energy resources during construction of the site.

Operation

The operation of Alternative 3 would result in an increase of energy demand, via electricity and petroleum compared to existing agricultural land use conditions.

Alternative 3 proposes the same amount of cannabis cultivation buildings as the proposed project, however, the individual cannabis businesses leasing the buildings would operate under different entities and licenses. Under this Alternative, the leased operations would consume a similar amount of electricity compared to the proposed project, because they both propose cannabis businesses. However, the proposed project will include the use of energy efficiency strategies, such as the installation of high efficiency lighting, which would reduce electricity consumption during operation.

Additionally, because the project site would not operate under one entity in Alternative 3, the individual cannabis operations would result in increased employee traffic, since each operation would require their own administration offices, deliveries, maintenance, etc., which would result in increased VMTs and gasoline and diesel consumption. Currently, the proposed project requires a singular administration office to manage and oversee the entire site. The project's administration offices would require a single onsite office to coordinate deliveries and maintenance of the site. Under Alternative 3, the various cannabis businesses would be required to schedule their own deliveries and maintenance activities that are required for business operation, resulting in increased traffic associated with Alternative 3. As discussed in ***Transportation*** (below), Alternative 3 would result in 3,646 daily trips which would represent a 37 percent increase when compared to the proposed project. This Alternative is also expected to have higher total VMT as a result of the increased intensity of activity within the proposed buildings. With the increased traffic and VMTs, petroleum consumption would also be increased, compared to the proposed project.

As stated in **Section 4.5, *Energy Resources,*** the proposed project would incorporate strategies to reduce automobile trips and the distance traveled per service population, to reduce VMT, and thus, petroleum fuel consumed. These strategies include carpooling/ride-matching services, bicycle end-trip facilities, and designating a part-time employee transportation coordinator (ETC). These strategies may not be as feasible in Alternative 3 due to inability to coordinate between cannabis businesses within the project site. Although each business could implement the VMT reduction strategies within their business, it would not be as efficient as the entire project facilitating these strategies.

The construction and operation of both the Cannabis Development/Leased Buildings Alternative and the proposed project would result in an increase of energy demand in the area, due to the proposed cannabis uses. However, Alternative 3 would result in more consumption of energy resources during construction and operation, due to the increased vehicular traffic related to the individual operations of the site. However, neither the proposed project nor Alternative 3 would result in significant impacts regarding energy resources.

Geology and Soils

The project site currently operates as a seasonal agricultural field. Under Alternative 3, the site would develop twelve cannabis buildings and associated improvements and the site design and building layout would be the same as the proposed project.

As determined in **Section 4.6, *Geology and Soils,*** the site is not located in or near an Alquist-Priolo Earthquake fault zone.

To mitigate impacts from seismic events, structures proposed in Alternative 3 would be required to be developed to the most current state and local standards regarding building construction. The project site is not located near a slope, and landslides would not occur at the site. Therefore, the structures would not be impacted by rockslides or landslides. No septic systems are proposed. The potential for impacts related to loss of topsoil, sedimentation, erosion, and landform alterations associated with Alternative 3 is anticipated to be consistent with the proposed project, because the entire site would be disturbed and restabilized, and impacts would be less than significant.

Similar to the proposed project, development of Alternative 3 would be required to implement the mitigation measures established in the project-specific Geotechnical Evaluation (**Appendix G**) and implement paleontological monitoring. These mitigation measures (indicated as **Mitigation Measures GEO-1** through **GEO-9**) would apply equally to Alternative 3's impacts and reduce them to less than significant levels.

Alternative 3 would result in similar impacts to geology and soils compared to the proposed project. Neither would result in significant and unavoidable impacts.

Greenhouse Gas Emissions

Alternative 3 would utilize the entire project site to develop commercial buildings for lease to individual cannabis business operators. As such, the extent and scale of development would be similar to that of the proposed project, but the operation would be handled under the practices of multiple lease holders. As a result, the sustainability practices offered under the proposed project would likely not be guaranteed by individual cannabis operators. Also, additional traffic would be anticipated associated with the individual cannabis businesses, operating concurrently.

The extent and scale of commercial building construction under Alternative 3 would be comparable to the proposed project and therefore would be expected to yield similar GHG emission levels of construction-related criteria air pollutants to those calculated for the proposed project. However, given that the proposed project's construction-related emissions did not surpass the MDAQMD standards, the short-term construction phase of Alternative 3 would similarly be expected to occur below the thresholds.

Pertaining to operations (life of the project), Alternative 3 would involve an increased extent, scale and intensity of activities to the proposed project. Alternative 3, however, would also not benefit from a unified strategy of sustainable cultivation practices as proposed by the project. As a result, a

decrease in efficiency is expected pertaining to water, energy and material uses. Operators would likely yield higher operational GHG emission levels to those calculated for the project, likely resulting in a similar Less than Significant finding. As a result, pertaining to GHG, the short-term and long-term emission levels associated with Alternative 3 would not be expected to introduce a different level of significance as determined for the proposed project.

Hazards and Hazardous Materials

Under Alternative 3, the property would develop twelve buildings for the cannabis cultivation and manufacturing operations. The site plan and building design for Alternative 3 would be the same as the proposed project. Operations of this Alternative would also be similar to the project site, however, in Alternative 3, multiple cannabis businesses could lease the onsite buildings for individual cannabis-related operations.

Indoor cultivation activities may include the storage and use of hazardous materials, however, the facilities are not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project and its surroundings or create a significant hazard due to accidental release.

Construction

Construction of Alternative 3 is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances in a manner similar to the proposed project. Hazardous materials would be delivered, stored, and handled to manufacturer instructions and industry standards. Additionally, the contractor will be required to identify a controlled staging area within the project limits for storing materials and equipment, as required by a Storm Water Pollution Prevention Plan (SWPPP). This is implemented by **Mitigation Measure HAZ-1.** Similar to the proposed project, the Reduced Density Alternative would implement safety procedures when using, handling, storing hazardous materials and impacts would be less than significant with the implementation of **HAZ-1**.

Operation

Indoor cultivation activities may include the storage and use of hazardous materials, however, the facilities are not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or in a manner that would pose a threat to the project and its surroundings or create a significant hazard due to accidental release. The Cannabis Development Leased Buildings Alternative would implement safety procedures when using, handling, storing hazardous materials and impacts would be less than significant.

Similar to the proposed project, if the individual businesses in Alternative 3 were to store hazardous materials in quantities greater than 55 gallons of liquid, 500 pounds of solid, and 200 cubic feet of compressed gas, the applicant would be required to submit a Hazardous Materials Business Plan (HMBP) to the Riverside County Department of Environmental Health (DEH) and Fire Department.

This is implemented by **Mitigation Measure HAZ-2.** With the implementation of **HAZ-2** impacts would be reduced to less than significant levels.

Additionally, federal regulations protect employees handling hazardous materials administered by the Occupational Safety and Health Administration (OSHA) and codified in 29 Code of Federal Regulations (CFR) Part 1910. The project is required to adhere to OSHA regulations in order to ensure employee safety and that proper handling and operating procedures occur at the site. This is implemented by **Mitigation Measure HAZ-3.** Alternative 2 would also be required to adhere to **HAZ-3.** Impacts would be reduced to less than significant levels.

The State of California provides additional regulations regarding the accidental release of hazardous materials (California Accidental Release Program), and regulations specific to cannabis business operations and disposal of wastes. According to Section 17223 of the Department of Cannabis Control (DCC) Medicinal and Adult-Use Commercial Cannabis Regulations, California Code of Regulations (CCR) Title 4, a cannabis licensee shall dispose of all waste in accordance with the Public Resources Code and any other applicable state and local laws. It is the responsibility of the licensee to properly evaluate waste to determine if it should be designated and handled as a hazardous waste, as defined in Public Resources Code Section 40141. Both the project and the individual businesses within Alternative 3 would be required to comply with the cannabis disposal practices implemented by the State and included as **Mitigation Measure HAZ-4**. Impacts are reduced to less than significant levels.

Additionally, indoor cultivation operations may use high powered lights, which could contain hazardous components that could enter the environment during disposal. High-intensity discharge (HID) bulbs are not recyclable, and each bulb contains approximately 30 mg of mercury and other toxins. However, light-emitting diodes (LEDs) are both more energy efficient and include less hazardous materials than HID bulbs. Both the project and the individual businesses within Alternative 3 shall dispose of light bulbs used for indoor cultivation at a certified facility that accepts commercial hazardous waste. The closest hazardous waste site to the project is Environmental Logistics, located at 140 West Monte Avenue, in Bloomington California. This is implemented by **Mitigation Measure HAZ-5.** With the implementation of **HAZ-5** impacts would be reduced to less than significant levels.

Maintenance of the proposed buildings would not result in the use of hazardous materials in amounts that exceed what is typically required for commercial buildings. The handling, application, and storage of cleaning agents, building maintenance products, paints, solvents and other related substances is expected to occur within the project in a manner typical of similar projects throughout the City to carry out the necessary operations in each facility or use. However, these materials would not be present in sufficient quantities to pose a significant hazard to public health and safety, or the environment.

As determined in **Section 4.8, *Hazards and Hazardous Materials***, the site is not located within one-quarter mile of an existing or proposed school, therefore, neither scenario would result in significant impacts to a school facility.

Construction and operation of the 34-acre site, under Alternative 3 will increase vehicular transportation along the local major roadways in the City, including Hobsonway. Primary access to the site would be expected to occur along Hobsonway. This roadway will provide private and emergency access in to and out of the project property. No alteration to existing emergency evacuation routes would be proposed. However, Alternative 3 would result in increased VMTs, since each individual operation would require their own administration offices, delivery dates, maintenance, etc. Currently, the project requires a singular administration office to manage and oversee the entire site and coordinate deliveries. Under Alternative 3, the project would result in the need for multiple administrative offices to coordinate deliveries and oversee the individual operation, resulting in increased employees and deliveries, since it is likely that each individual cannabis operation onsite would schedule deliveries convenient to their own schedule, and from different suppliers. Therefore, impacts to project access would be increased under Alternative 3 due to the increased amount of vehicular traffic. As with the proposed project, a Traffic Control Plan will be required as a condition of approval to be implemented throughout all construction activities. This plan will reduce potential impacts that may arise due to conflicts with construction traffic. Project access points would be reviewed by the Fire Department, to ensure adequate access for emergency vehicles.

Additionally, the businesses within Alternative 3 would be required to have certification from and comply with local jurisdictions, such as the City of Blythe and the Fire Department, to ensure building, electrical, and fire codes are implemented at the site. This shall be required as **Mitigation Measure HAZ-6**. The implementation of **Mitigation Measure HAZ-6** will ensure project impacts regarding electrical and fire hazards are reduced to less than significant.

Finally, the property is not located in a Moderate, High, or Very High Fire Hazard Severity Zone (VHFHSZ) according to CALFIRE's High Fire Hazard Severity Zones in State Responsible Areas Map. Therefore, impacts of exposing people or structures to a significant risk involving wildland fires are expected to be less than significant for both the Cannabis Development/Leased Building Alternative and the proposed project.

Overall, the proposed building locations and design would be consistent with applicable State and local construction requirements and standards under both scenarios. Hazardous materials used during operation of the site will be handled to manufacturer and industry standards. Additionally, the project will implement and adhere to federal, State, and regional regulatory standards. Compared to the proposed project, the Cannabis Development/Leased Buildings Alternative would result in similar construction impacts, and increased operational impacts to hazards and hazardous materials. Both

scenarios would result in less than significant impacts. Neither scenario would result in significant or unavoidable impacts.

Hydrology and Water Quality

Alternative 3 would utilize the entire project site to develop commercial buildings for lease to individual cannabis business operators. As such, the extent and scale of development would be similar to that of the proposed project, but the operation would be handled under the practices of multiple lease holders. The common site infrastructure and storm drain system would likely be comparable to the proposed project in order to meet the local engineering requirements.

The disturbed area associated with Alternative 3 is equal to the proposed project and would be subject to the same regulatory requirements, permit coverages, and engineering design approvals pertaining to hydrology and water quality standards. During the period of construction (site clearing, grading, and vertical construction), Alternative 3 would warrant coverage under the State's National Pollution Discharge Elimination System (NPDES) Construction General Permit and would be exercised through the design and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to account for all land disturbance activities. The SWPPP would establish the site-specific temporary measures to prevent erosion, siltation, contamination and other impacts associated with construction. The SWPPP is required by **Mitigation Measure HWQ-1**. As a condition of engineering approval, Alternative 3 would be required to include an adequate storm drain and retention design specific to the reduced area and associated site plan. Alternative 3 would require compliance with the regulatory requirements and the associated stormwater controls. Therefore, after following the regulatory program requirements designed specifically to prevent hydrologic, stormwater and surface water impairments, the impacts resulting from Alternative 3 would be similar to the proposed project and less than significant with mitigation.

Noise

The operation and construction of Alternative 3 would result in an increase in onsite and offsite noise compared to the existing conditions due to the various individual cannabis businesses.

Construction

The Cannabis Development/Leased Buildings Alternative proposes the construction and operation of twelve buildings for cannabis cultivation and manufacturing on approximately 34 acres. Similar to the proposed project, construction of Alternative 3 would increase the ambient noise level because the site would be developed. However, as demonstrated in **Section 4.10**, ***Noise***, construction of the site would not result in significant noise and impacts were determined to be less than significant. Therefore, since Alternative 3 proposes to develop the entire project site similar to the proposed project, the Cannabis Development/Leased Building Alternative would also result in less than significant noise levels during construction.

Similar to the proposed project, Alternative 3 would not generate significant groundborne vibrations during construction. As determined in **Section 4.10**, ***Noise***, the transient construction vibration velocity levels are estimated to range from 0.000 to 0.036 PPV in/sec at distances ranging from 46 to 1,529 feet from the project construction activity. Based on maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec) for older residential structures or commercial buildings, the typical project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations. Therefore, vibration impacts due to the typical project construction activities are considered less than significant. Since Alternative 3 would develop the same area as the proposed project, less than significant construction-related vibration impacts are anticipated.

Neither the proposed project nor Alternative 3 would result in significant impacts to noise or vibration during construction.

Operation

Operational noise associated with project-generated traffic would be increased under Alternative 3, since this the project site would not operate under one entity in Alternative 3. Therefore, the individual cannabis operations would result in increased employee traffic, since each operation would require their own administration offices, delivery dates, maintenance, etc., which would result in increased VMTs. Currently, the project requires a singular administration office to manage and oversee the entire site, having deliveries and maintenance coordinated by a single onsite administration office. As a result of the increased traffic associated with Alternative 3, noise would also be increased. However, this increase would result in less than significant impacts since the project site is located in a general commercial land use designation and is surrounded by outdoor agricultural uses to the north, west and south, and C Canal, commercial buildings, and vacant land to the east. Additionally, Hobsonway and the Interstate 10 freeway delineates the project's northern and southern boundaries, respectively. The traffic generated by the proposed project and Alternative 3 would not result in significant noise impacts.

As demonstrated in **Section 4.10**, ***Noise***, the closest noise sensitive receiver is a residential structure approximately 46 feet west of the project boundary. The project-specific Noise Report provided by Urban Crossroads, Inc. determined that the operation of the proposed project would not result in increased noise impacts that would be significant to the residential structure. Therefore, since Alternative 3 proposes the same development as the proposed project, the Cannabis Development/Leased Buildings Alternative would have similar operational noise levels compared to the proposed project. Both the proposed project and Cannabis Development/Leased Buildings Alternative would result in less than significant impacts.

Operational noise from the Cannabis Development/Leased Buildings Alternative is not anticipated to be significant. However, this Alternative would result in similar construction noise levels and operational noise levels as the proposed project but increased off-site vehicular noise due to the

increased daily vehicle trips. The Cannabis Development/Leased Buildings Alternative would result in similar but increased noise impacts, as compared to the proposed project, but both would be less than significant.

Public Services

The Cannabis Development/Leased Buildings Alternative project would introduce uses that would place additional demand on the City of Blythe's public services. There would be an increased demand in police services, fire and emergency services as a result of the development of Alternative 3. However, like the proposed project, Alternative 3 would be required to comply with applicable laws and codes imposed by the City and Riverside County Fire Department and pay applicable Development Impact Fees to fund public facilities, including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings. Impacts would be less than significant.

Alternative 3 would result in similar impacts to public services compared to the proposed project since the Alternative would develop and operate the same number of cannabis buildings, however, each building could be leased to individual cannabis businesses. Both scenarios would result in less than significant impacts.

Transportation

The Leased Operations Alternative would result in increased traffic in the project area. Short-term construction vehicle trip impacts would result from development of the alternative. However, these impacts would be generally limited to permitted construction activity hours. Additionally, construction traffic would cease once construction was complete. Access to the site would be consistent with the proposed project. Hobsonway will provide public and emergency access in to and out of the project property.

Operational traffic, as a result of Alternative 3, would result in increased vehicle trips in the project area. This Alternative would result in higher impacts associated with operational traffic compared to the proposed project. As shown in **Table 7-6**, Alternative 3 would result in 3,646 daily trips which would represent a 37% increase when compared to the proposed project. As a result, it would be expected that impacts to project area intersections would also be increased.

Table 7-6 Alternative 3 Trip Generation Comparison

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Alternative 2 Trip Generation Comparison							
Proposed Project (TS)							
509,103 sf Cultivation, 24,709 Office	283	76	359	113	270	383	2,279
Leased Operations (Industrial Park) – Alt3							
509,103 sf Cultivation, 24,709 Office	336	101	407	139	315	454	3,646
Alternative 2 Delta (Alternative – TS)	**-53**	**-25**	**-48**	**-26**	**-45**	**-71**	**-1,367**

Table 7-7 Trip Generation Rates

Trip Generation Rates									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25
Industrial Park	130	TSF	0.63	0.19	0.82	0.26	0.59	0.85	6.83

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Table 7-8 Project Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
Total			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Table 7-9 Alt 3 Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Industrial Park	130	533.812 TSF	**336**	**101**	**407**	**139**	**315**	**454**	**3,646**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Alternative 3 is anticipated to generate higher daily trips and will be responsible for its fair share contribution. Required improvements will result in acceptable LOS for all intersections, and Alternative 3 would be required to contribute to these improvements in the same manner as the proposed project.

This Alternative is expected to have higher total VMT as a result of the increased intensity of activity within the proposed buildings. In addition, Alternative 3 would have a higher per capita VMT. Therefore, Alternative 3 would result in higher VMT and less than significant impacts in this regard, both Alternative 3 and the proposed project have less than significant VMT impacts.

Although the proposed project would result in less traffic than Alternative 3, both projects would result in less than significant impacts, with the construction of improvements similar to those required of the proposed project.

Tribal Cultural Resources

Under Alternative 3, the property would result in similar impacts to Tribal cultural resources as the proposed project because both scenarios would disturb the same area of the project site. Additionally, both projects would be required to engage in Tribal consultation of the site with local tribes. Consistent with the requirements of **Section 4.13, *Tribal Cultural Resources***, development of

Alternative 3 would avoid impacts associated with potential disturbance to Tribal cultural resources and would therefore have similar impacts compared to the proposed project. However, neither Alternative 3 nor the proposed project have significant and unavoidable tribal cultural impacts

Utilities and Service Systems

Alternative 3 would result in similar impacts to utilities compared to the proposed project since this Alternative would result in the construction of the entire site and operate the same number of cannabis buildings. However, each building could be leased to individual cannabis businesses with each one operating under different methods and conditions. Neither Alternative 3 nor the proposed project have significant and unavoidable impacts to utilities.

Water

Alternative 3 would result in an increase in water demand during construction and operation of the proposed cannabis development. The Leased Building Alternative would likely result in the same water demand or slightly more, compared to the proposed project given that each tenant would have their own methods of operation. While various tenants could create additional marginal demand for utilities, the site is within or adjacent to existing service areas and would not require construction of additional or expanded off-site facilities. The impacts with respect utilities would be generally the same with this alternative as under the proposed Project.

Wastewater

Wastewater service, provided by the City of Blythe would be required for the operation of the proposed project and Alternative 3. The Leased Building Alternative would result in similar wastewater demand or slightly more, due to each tenant having different staffing of employees and their own methods of operation. **Section 4.14, *Utilities and Service Systems*** determined that the City of Blythe has sufficient capacity to support the project. Given the availability of existing utilities and service providers, while marginally increased as compared to the proposed Project, the impacts of this alternative with respect to these topics would remain less than significant.

Solid Waste

Solid waste services would be provided by CR&R. The development of the Leased Building Alternative would require solid waste services for construction activities and project implementation. Solid waste generated by operation of Alternative 3 would have similar impacts or slightly more than the waste generated by the proposed project. As determined in **Section 4.14, *Utilities and Service Systems***, the landfills that would service the property have adequate capacity to support solid waste generated by the proposed project, and therefore, the Leased Building Alternative would also result in less than significant impacts.

Electricity

Electricity would be required for construction and operation of Alternative 3. However, it is likely that electricity consumed by Alternative 3 may have a slightly higher demand to electrical services as compared to the proposed project. Alternative 3 would lease buildings to different tenants who would each have their own methods of operation impacting the number of employees.

The proposed project would be required to connect to SCE infrastructure to provide electricity to the project site. The increase of electrical demand for Alternative 3 would be supported by the infrastructure, with implementation of the same improvements as the proposed project, given the relatively large development and the operation. Neither project would result in significant and unavoidable impacts.

Natural Gas

Natural Gas, provided by Southern California Gas Company (SoCalGas), would not be required for the operation of the proposed project or Alternative 3. Impacts to natural gas would remain the same as the proposed project. Neither project would result in significant and unavoidable impacts.

Telecommunications

Alternative 3 would be required to connect to existing telecommunication services, either by Frontier or Spectrum to provide telecommunication services to the project site. Additional infrastructure would not be required as determined in **Section 4.14, *Utilities and Service Systems.*** The increase of telecommunication demand for the site would be less than significant.

Summary of Comparative Impacts

A summary and comparison of impacts associated with the project alternatives is provided in **Table 7-14*, Comparison of Alternatives to Project.*** The Cannabis Development/Leased Buildings Alternative would result in equal impacts to aesthetics, biological resources, cultural resources, geology and soils, tribal cultural resources, and utilities (sewer, telecommunications), compared to the project since both Alternative 3 and the project would develop the 34-acre site.

The Cannabis Development/Leased Buildings Alternative would result in increased impacts to air quality, energy, greenhouse gas emissions, hazards and hazardous materials, hydrology and water quality, noise, transportation, and utilities (electricity) compared to the proposed project.

Relationship to Project Objectives

The following project objectives would not be achieved with Alternative 3 because the operation would be handled by multiple lease holders and the individual operational practices and procedures would likely not be guaranteed by the individual operators:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;

- Bring a sustainable and expandable model of commerce to Blythe;
- Provide a legal holistic, sustainable cannabis option to patients and consumers in Blythe.

7.5.4 Alternative 4 – General Commercial General Plan and Zoning Development

The existing land use and zoning designation for the project property is General Commercial. Under the General Commercial General Plan and Zoning Development Alternative, the property would be built as a typical general commercial development within General Commercial land use and zoning designations established by the City of Blythe. According to Section 17.08.010 of the Blythe Municipal Code uses allowed within General Commercial zones could include automobile servicing, parking, or sales/rentals; eating and drinking establishments; (drive through) food and beverage sales; transient occupancy (i.e., hotel and motel); administration/professional services (i.e., offices); animal boarding; health care and grooming facilities; laundry services; and/or, recreational/fitness facilities. These uses are permitted within the General Commercial zone. For example, Alternative 4 could develop two hotels (125 keys each) on 5 acres, three fast food sites (3,000 square feet each) on 3 acres, a convenience store on 1 acre, 20,000 square feet of commercial suites on 4 acres, and 30,000 square feet of professional/office suites as well as open space areas (retention, irrigation ditches and landscaping) on 8 acres. Alternative 4 would allow the development of these uses on the approximately 34-acre site. A comparative analysis of impacts for Alternative 3 is provided below:

Aesthetics

Under the General Commercial General Plan and Zoning Development Alternative, impacts to the surrounding scenic vistas and aesthetic quality of the area would be similar to the proposed project. Like the proposed project, the General Commercial General Plan and Zoning Development Alternative would impact existing scenic vistas, such as the mountains north, west, south, and east of the project. When viewed on the public rights-of-way (Hobsonway to the north and the Interstate 10 to the south) the mountains north and south of the project are currently unobstructed by the property, due to its undeveloped character. Currently, the project site operates as an agricultural field and does not include any structures. Therefore, views of the surrounding mountains, when observed from the public rights-of-way, are distant and only partially obstructed by existing (offsite) manmade structures, infrastructure, and landscaping.

Alternative 4 could develop any of the general commercial land uses allowed by the City for General Commercial (C-G) land uses and zones. According to Section 17.10.040, Building height, of the Blythe Municipal Code, commercial buildings shall not exceed three stories in height or a maximum of 34 feet in height. The commercial projects developed under Alternative 4 would be required to adhere to the Blythe Municipal Code standards for building height and setbacks in C-G zones. The project proposes one, 2-story and eleven, 1-story buildings.

Development of Alternative 4 would result in impacts to existing views of the surrounding mountains, depending on the viewpoint location, and when compared to the proposed project, Alternative 4 would result in greater impacts to scenic vistas. This is because the development of Alternative 4 could result in three-story buildings, thus further obstructing the local mountains to the north and south when viewed from Hobsonway and Interstate 10, respectively. However, similar to the proposed project, the impact on the existing scenic views depends on the location of the viewpoint, in conjunction with features along the project's frontage, including the landscape and the location of the project buildings. Base and mid-range views of the mountains may be obstructed along the public rights-of-way, but peak views of the mountains may remain visible. Therefore, the proposed project and Alternative 4 will not completely remove the views of mountains from public viewing locations, and the views of the mountains will be visible once the motorist or pedestrian passes the project site. Also, visual relief between buildings will provide views of the north- and south-lying mountains. Therefore, similar to the project site, Alternative 4 would result in less than significant impacts to scenic vistas.

Alternative 4 would develop general commercial uses on the approximately 34-acre site. Alternative 4 would be required to submit a Site Plan Review prior to development, as a part of the approval process. The design features and development standards proposed in Alternative 4 would be subject to City review regarding architecture, landscaping, and design to ensure a high-quality design project. Alternative 4 would be required to adhere to the development standards, design features, architecture, and landscaping established in the Site Plan Review. Therefore, the proposed project and the General Commercial General Plan and Zoning Development Alternative would require City approval of the Site Plan Review. With the City's approval of these plans, Alternative 4 would result in similar impacts to the existing visual character compared to the proposed project since both projects would develop the site and go through a Site Plan Review. Both the proposed project and Alternative 4 would result in less than significant impacts.

The General Commercial General Plan and Zoning Development Alternative would result in equal impacts to light and glare, compared to the proposed project. Both Alternative 4 and the proposed project would result in the development and operation of commercial buildings. Typical lighting features for commercial facilities includes post- and wall-mounted light fixtures for parking lots, pedestrian pathways, and at building entrances, as well as the illumination of signs and landscaping. As stated in Section 17.28.030 of the Blythe Municipal Code, lighting, where provided to illuminate private property, shall be so arranged as to reflect away from adjoining property or any public way and to be arranged so as not to cause a nuisance either to highway traffic or to the living environment. Alternative 4, as well as the proposed project, would be required to adhere to this code. Therefore, light generated from the General Commercial General Plan and Zoning Alternative would be less than significant, similar to the project.

The General Commercial General Plan and Zoning Development Alternative would result in equal impacts to visual character, scenic resources, and light and glare compared to the proposed project. However, Alternative 4 could result in greater impacts to scenic vistas observed from public viewpoints, since the buildings developed under Alternative 4 could be three-stories or up to 34 feet in height and may result in increased operations, e.g., hotels and restaurants would be operational throughout the evening. As previously stated, the project is proposing one, 2-story building, and eleven 1-story buildings. Overall, impacts to aesthetic resources are less than significant and do not require the implementation of mitigation measures. Impacts associated with views of scenic vistas, scenic resources, visual character, and light and glare would be less than significant under both Alternative 4 and the proposed project.

Air Quality

Alternative 4 would utilize the entire 34-acre property for commercial development under the General Commercial Land Use and Zoning designation set forth by the City of Blythe. Allowable commercial uses vary widely and include automotive servicing, restaurants, and hotels among other services. A possible development configuration with a 0.4 floor area ratio would yield approximately 592,000 square feet of commercial space, with the remaining being allotted for parking and landscaping. At this scale, full buildout of Alternative 4 would be considered one of the largest commercial plazas in the City of Blythe.

The extent and scale of commercial development construction under Alternative 4 would be somewhat comparable to the proposed project and therefore would be expected to yield similar emission levels of construction-related criteria air pollutants to those calculated for the proposed project. However, given that the proposed project's construction-related emissions did not surpass the MDAQMD standards, the short-term construction phase of Alternative 4 would similarly be expected to occur below the thresholds.

Pertaining to operations (life of the project), Alternative 4 would involve a wide range of allowable services with the corresponding emission implications. Some general commercial establishments may assume lower energy consumption and trip generation than other spaces in the same project. The range of services involved with Alternative 4 would likely yield higher operational emission levels to those calculated for the project due to the increase in traffic, potentially resulting in a significant finding. As a result, pertaining to air quality, the short-term and long-term emission levels associated with Alternative 4 would be expected to introduce a higher level of significance as determined for the proposed project.

Biological Resources

Under Alternative 4, conditions to biological resources would be similar to the proposed project since both projects would result in the development of the project site. As established in **Section 4.3, *Biological Resources***, the development of the project property would potentially impact one sensitive

and protected species, the burrowing owl. Although burrowing owls were not observed onsite during the field investigation, the earthen levees surrounding the site provides suitable habitat for burrowing owl foraging, and the owls can take up residence on the site at any time. Development of the site while burrowing owls are present would have a potentially significant impact on this species. Therefore, mitigation is required to reduce the impact to less than significant levels. Mitigation in the form of a pre-construction burrowing owl survey shall be performed by a qualified biologist not more than 14 days prior to any site disturbance is included as **Mitigation Measure BIO-1**. The mitigation measure would also be imposed for development of Alternative 4 to reduce impacts to biological resources to less than significant levels. With implementation of **Mitigation Measure BIO-1**, impacts would be reduced to less than significant levels, and would be similar to the proposed project.

Cultural Resources

Per the conclusions in **Section 4.4, *Cultural Resources***, the development of the proposed project would not result in impacts to cultural resources because of the extensive site disturbance and past and current agricultural operations. Although the project's potential to impact significant archaeological resources appears to be low in the disturbed surface soils, it is always possible that unforeseen artifacts could become uncovered during construction activities. Therefore, the project will be subject to standard requirements, and compliance with federal and State law as it relates to historical and archaeological resources. Since these regulations are standard requirements, they are not considered mitigation measures. Both the proposed project and Alternative 4 would implement the standard requirements, resulting in less than significant impacts associated with potential disturbance to buried cultural resources.

Development of Alternative 4 would result in the construction of the entire site, similar to the proposed project. Therefore, both projects would be required to comply with standard requirements, and federal and State law to avoid impacts to cultural resources. Neither Alternative 4 nor the proposed project would result in any significant and unavoidable cultural impacts.

Energy

Construction and operation of Alternative 4 would result in an increased demand for energy resources compared to the proposed project. Under this Alternative, the property would be built as a typical general commercial development within General Commercial land use and zoning designations established by the City of Blythe, including automobile servicing, parking, or sales/rentals; eating and drinking establishments; (drive through) food and beverage sales; transient housing (i.e., hotel and motel); administration/professional services (i.e., offices); animal boarding; health care and grooming facilities; laundry services; and/or recreational/fitness facilities. The uses proposed in Alternative 4 would be accessible to the public; therefore, it is likely that the General Commercial General Plan and Zoning Development Alternative would result in increased energy consumption regarding petroleum compared to the proposed project.

Construction

Short-term energy consumption related to construction activities would occur during development of both Alternative 4 and the proposed project. Construction-related energy use would include the consumption of electricity for tools and power required for constriction trailers. Petroleum fuels, such as gasoline and diesel, would also be required during construction for the operation of machinery, large equipment, and employee vehicle trips.

Alternative 4 proposes to develop the 34-acre site, similar to the proposed project. Therefore, development of Alternative 4 would result in equal energy consumed during construction of the site, and, as demonstrated in **Section 4.5, *Energy Resources***, the use of electricity and petroleum during construction of the project would not be excessive, or unnecessary. Additionally, construction-related energy consumption at the site would cease at the conclusion of construction. Thus, neither the General Commercial General Plan and Zoning Development Alternative nor the proposed project would result in significant impacts to energy resources during construction of the site.

Operation

The operation of the 34-acre site would result in an increase of energy demand, via electricity and petroleum compared to existing conditions. For example, Alternative 4 could include the development of a shopping center on the 34-acre site.

As discussed in ***Transportation***, Alternative 4 would result in 22,794 daily trips which would represent an increase of almost 10 times the proposed project traffic. This Alternative is also expected to have higher total VMT as a result of the increased intensity of activity within the proposed commercial buildings. With the increased traffic and VMTs, petroleum consumption would also be increased, compared to the proposed project.

However, electricity consumption from the general commercial uses would likely be less than electricity consumed by the proposed project since cannabis operations typically consume more electricity than a typical commercial building, due to the operation of the light bulbs and regulating climate control for plant survival.

Both Alternative 4 and the proposed project would be required to implement state standards regulating electricity use. However, cannabis operations typically consume more electricity compared to conventional land uses in order to create ideal growing climates during cultivation. Additionally, both projects would result in a long-term increase in demand for electricity but both would be required to comply with Title 24 and CALGreen requirements related to energy efficiency. Therefore, impacts will be less than significant.

The construction and operation of both the General Commercial General Plan and Zoning Development Alternative and the proposed project would result in an increase of energy demand in the area, compared to the existing agricultural use. However, Alternative 4 would result in more

consumption of petroleum resources during operation compared to the proposed project, due to the increased vehicular traffic caused by public access to the site. Conversely, Alternative 4 would consume less electricity than the proposed project due to the project's cannabis operations.

Neither the proposed project nor Alternative 4 would result in significant impacts regarding energy resources.

Geology and Soils

The project site currently operates as a seasonal agricultural field. Under Alternative 4, the site would develop any of the variety of uses allowable under the City of Blythe's General Plan and Zoning designation, General Commercial (C-G), and similar to the proposed project, would result in the development of the entire 34-acre site.

As determined in **Section 4.6, *Geology and Soils,*** the site is not located in or near an Alquist-Priolo Earthquake fault zone.

To mitigate impacts from seismic events, structures proposed in Alternative 4 would be required to be developed to the most current state and local standards regarding building construction. The project site is not located near a slope, and landslides would not occur at the site. Therefore, the structures would not be impacted by rockslides or landslides. No septic systems are proposed. The potential for impacts related to loss of topsoil, sedimentation, erosion, and landform alterations associated with Alternative 4 is anticipated to be consistent with the proposed project, because the entire site would be disturbed and restabilized, and impacts would be less than significant.

Similar to the proposed project, development of Alternative 4 would be required to implement the mitigation measures established in the project-specific Geotechnical Evaluation (**Appendix G**) and implement paleontological monitoring. These mitigation measures (indicated as **Mitigation Measures GEO-1** through **GEO-9**) would apply equally to Alternative 4's impacts and reduce them to less than significant levels.

Alternative 4 would result in similar impacts to geology and soils compared to the proposed project. Neither would result in significant and unavoidable impacts.

Greenhouse Gas Emissions

Alternative 4 would utilize the entire 34-acre property for commercial development under the General Commercial Land Use and Zoning designation set forth by the City of Blythe. Allowable commercial uses vary widely and include automotive servicing, restaurants, and hotels among other services. Although no site plan is available for Alternative 4, a possible development configuration with a 0.4 floor area ratio would yield approximately 592,000 square feet of commercial space, with the remaining being allotted for parking and landscaping. At this scale, full buildout of Alternative 4 would be considered one of the largest commercial plazas in the City of Blythe.

The extent and scale of commercial development construction under Alternative 4 would be somewhat comparable to the proposed project and therefore would yield similar construction-related GHG emission levels to those calculated for the proposed project. However, given that the proposed project's construction-related GHG emissions did not surpass the MDAQMD standards, the short-term construction phase of Alternative 4 would similarly be expected to occur below the thresholds.

Pertaining to operations (life of the project), Alternative 4 would involve a wide range of allowable services with the corresponding GHG emission implications. Some general commercial establishments may assume lower energy consumption and trip generation than other spaces in the same project. The range of services are not anticipated to yield comparable operational GHG emission levels due to increased traffic generally associated with commercial uses. Alternative 4 could potentially result in a significant finding. As a result, pertaining to air quality, the short-term and long-term emission levels associated with Alternative 4 would be expected to introduce a different level of significance as determined for the proposed project.

Hazards and Hazardous Materials

Under Alternative 4, the site would develop any of the uses allowable under the City of Blythe's General Plan and Zoning designation, General Commercial (C-G). Alternative 4, similar to the proposed project would result in the development of the entire 34-acre site.

Construction

Construction of Alternative 4 is expected to involve the temporary management and use of oils, fuels and other potentially flammable substances in a manner similar to the proposed project. Hazardous materials would be delivered, stored, and handled to manufacturer instructions and industry standards. Additionally, the contractor will be required to identify a controlled staging area within the project limits for storing materials and equipment, as required by a Storm Water Pollution Prevention Plan (SWPPP). This is implemented by **Mitigation Measure HAZ-1.** Similar to the proposed project, the General Commercial General Plan and Zoning Development Alternative would implement safety procedures when using, handling, storing hazardous materials and impacts would be less than significant with the implementation of **HAZ-1**.

Operation

Alternative 4 proposes the operation of a shopping center on 34 acres. The nature of these uses is not expected to involve, as a primary activity, the routine transport, use, or disposal of hazardous materials in quantities or a manner that would pose a threat to the project and its surroundings, or create a significant hazard through a foreseeable accident conditions involving the release of hazardous materials into the environment. The uses allowed within a shopping center would be required to comply with industry standards. For example, the development of an automobile service

center would be required to comply with hazardous material storage and disposal requirements implemented by the State. The hazardous materials during operation of the site would be delivered, stored, and handled to manufacturer instructions and industry standards.

Maintenance of the proposed buildings would not result in the use of hazardous materials in amounts that exceed what is typically required for commercial buildings. The handling, application, and storage of cleaning agents, building maintenance products, paints, solvents and other related substances is expected to occur within the project in a manner typical of similar projects throughout the City to carry out the necessary operations in each facility or use. However, these materials would not be present in sufficient quantities to pose a significant hazard to public health and safety, or the environment.

As determined in **Section 4.8, *Hazards and Hazardous Materials***, the site is not located within one-quarter mile of an existing or proposed school, therefore, there would be no impact to a school facility. Additionally, the property was not identified to be on a list of hazardous materials site. Therefore, Alternative 4 would not create a significant hazard to the public or the environment.

Construction and operation of the 34-acre site, under Alternative 4 will increase vehicular transportation along the local major roadways in the City, including Hobsonway. Primary access to the site would be expected to occur along Hobsonway. This roadway will provide public and emergency access into and out of the project property. No alteration to existing emergency evacuation routes would be proposed. However, Alternative 4 would result in increased traffic, since the site would be open to the public and would be open evenings and/or weekends. A Traffic Control Plan will be required as a condition of approval to be implemented throughout all construction activities. Project access points will be reviewed by the Fire Department, to ensure adequate access for emergency vehicles. Alternative 4 implementation is not expected to interfere with critical facilities, emergency transportation and circulation, or emergency preparedness coordination. Alternative 4 and the proposed project would result in less than significant impacts.

Finally, the property is not located in a Moderate, High, or Very High Fire Hazard Severity Zone (VHFHSZ) according to CALFIRE's High Fire Hazard Severity Zones in State Responsible Areas Map. Therefore, impacts of exposing people or structures to a significant risk involving wildland fires are expected to be less than significant for both Alternative 4 and the proposed project.

The uses allowed within a shopping center would be required to comply with industry standards regarding the use, storage, or disposal of hazardous materials. The General Commercial General Plan and Zoning Development Alternative and the proposed project would result in less than significant impacts regarding hazards and hazardous materials.

Overall, the proposed building locations and design would be consistent with applicable state and local construction requirements and standards under both scenarios. Hazardous materials used during operation of the site will be handled to manufacturer and industry standards. Additionally, the

project will implement and adhere to federal, state, and regional regulatory standards. Alternative 4 would result in similar impacts during construction compared to the proposed project, and reduced impacts during operation compared to the proposed project, since Alternative 4 does not propose uses that require mitigation measures. Both scenarios would result less than significant impacts with impacts (for construction). Neither scenario would result in significant or unavoidable impacts.

Hydrology and Water Quality

Alternative 4 would utilize the entire 34-acre property for commercial development under the General Commercial Land Use and Zoning designation set forth by the City of Blythe. Allowable commercial uses vary widely and include automotive servicing, restaurants, and hotels among other services. A possible development configuration with a 0.4 floor area ratio would yield approximately 592,000 square feet of commercial space, with the remaining being allotted for parking and landscaping. At this scale, full buildout of Alternative 4 would be considered one of the largest commercial plazas in the City of Blythe.

The disturbed area associated with Alternative 4 is equal to the proposed project and would be subject to the same regulatory requirements, permit coverages, and engineering design approvals pertaining to hydrology and water quality standards. During the period of construction (site clearing, grading, and vertical construction), Alternative 4 would warrant coverage under the State's National Pollution Discharge Elimination System (NPDES) Construction General Permit and would be exercised through the design and implementation of a Storm Water Pollution Prevention Plan (SWPPP) to account for all land disturbance activities. The SWPPP would establish the site-specific temporary measures to prevent erosion, siltation, contamination and other impacts associated with construction. The SWPPP is required by **Mitigation Measure HWQ-1**. As a condition of engineering approval, Alternative 4 would be required to include an adequate storm drain and retention design specific to the reduced area and associated site plan. Any commercial use involving petroleum product storage and handling, restaurant grease disposal, and hazardous material handling would be subject to the respective registration and permitting process specific to those applicants and portions of the site. Alternative 4 would be required to comply with all applicable regulatory requirements and the associated stormwater controls. Therefore, after following the regulatory program requirements designed specifically to prevent hydrologic, stormwater and surface water impairments, the impacts resulting from Alternative 4 would be similar to the proposed project and less than significant with mitigation.

Noise

The operation and construction of Alternative 4 would result in an increase in onsite and offsite noise compared to the existing conditions which includes an agricultural field.

Construction

The General Commercial General Plan and Zoning Development Alternative proposes the construction and operation of commercial uses allowed within the City of Blythe's General Commercial land use and zoning designation. Within this designation, the project could develop a shopping center on 34 acres of the project site. Similar to the proposed project, construction of Alternative 4 would increase the ambient noise level because the site would be developed. However, as demonstrated in **Section 4.10**, ***Noise***, construction of the site would not result in significant noise or vibration impacts. Impacts were determined to be less than significant. Therefore, since Alternative 4 proposes to develop the entire project site similar to the proposed project, the General Commercial General Plan and Zoning Development Alternative would also result in less than significant noise levels during construction.

Operation

Operational noise from Alternative 4 is not anticipated to be significant since the General Commercial General Plan and Zoning Development Alternative proposes uses similar to those east of the project. Alternative 4 proposes the development of a shopping center. This use is typical in General Commercial zones. The areas north, south, east, and west of the project site are also designated General Commercial, therefore, on-site noise levels would be typical of this land use type, although it is worth noting that most of those areas are currently used for agricultural purposes, which may continue well into the future.

The operation of Alternative 4 would allow public access to the site, including during evenings and weekends. Alternative 4 would result in a higher number of vehicle trips on City roadways than the proposed project. Those trips would also marginally increase the levels of noise on these roadways but given existing capacity and the dispersed nature of the trips, impacts would not be expected to be significant.

Overall, the noise generated by Alternative 4 would result in reduced on-site impacts and increased off-site traffic noise impacts compared to the proposed project. However, neither the proposed project nor Alternative 4 would result in significant and unavoidable operational noise impacts.

Public Services

The General Commercial General Plan and Zoning Development Alternative project would introduce uses that would place additional demand on the City of Blythe's public services. There would be an increased demand in police services, fire and emergency services as a result of the development of Alternative 4. However, like the proposed project, Alternative 4 would be required to comply with applicable laws and codes imposed by the City and Riverside County Fire Department and pay applicable Development Impact Fees, to fund public facilities including but not limited to fire stations, police service, park and recreation facilities, major thoroughfares and bridges and traffic signalization, public safety facilities and other public buildings. Impacts would be less than significant.

Alternative 4 could result in increased impacts to public services compared to the proposed project since the Alternative would develop and operate commercial uses allowable in General Commercial (C-G) land use and zoning designations which would introduce public access and increased potential for conflicts. Also, as previously mentioned, the General Commercial General Plan and Zoning Designation Development would result in an increase in traffic due to the public access allowed by the uses. Compared the Alternative 4, the proposed project would not be accessed by the public. Only authorized vehicles would access the site (monitored by the guard house). Although Alternative 4 would result in increased traffic into and out of the site, the scenario would be required to comply with applicable laws and codes imposed by the City and Riverside County Fire Department and pay applicable Development Impact Fees, as previously stated. Therefore, impacts would be less than significant. Both scenarios would result in less than significant impacts.

Transportation

Alternative 4 would result in an increase in traffic in the project area. Short-term construction vehicle trip impacts would result from development of the alternative. However, these impacts would be generally limited to permitted construction activity hours. Additionally, construction traffic would cease once construction was complete. Access to the site would be consistent with the proposed project. Hobsonway will provide public and emergency access in to and out of the project property.

Operational traffic, as a result of Alternative 4, would also increase vehicle trips in the project area. This Alternative would result in significantly higher impacts associated with operational traffic compared to the proposed project. As shown in **Table 7-10**, Alternative 4 could result in 22,794 daily trips based on trips generated by a Shopping Center (ITE Code 820), which would represent an increase of almost 10 times the project traffic. As a result, it would be expected that impacts to project area intersections would also be increased.

Table 7-10 Alternative 4 Trip Generation Comparison

Land Use	AM Peak Hour			PM Peak Hour			Daily
	In	Out	Total	In	Out	Total	
Alternative 2 Trip Generation Comparison							
Proposed Project (TS)							
509,103 sf Cultivation, 24,709 Office	283	76	359	113	270	383	2,279
Commercial Operations (Shopping Center) – Alt3							
592,416 sf shopping center	210	129	512	627	680	1980	22,794
Alternative 4 Delta (Alternative – TS)	**73**	**-53**	**-153**	**-514**	**-410**	**-1597**	**-20,515**

Table 7-11 Trip Generation Rates

Trip Generation Rates									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25
Shopping Center	820	TSF	0.60	0.36	0.96	1.78	1.93	3.71	42.70

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

2. TSF = Thousand Square Feet

Table 7-12 Project Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manufacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
Total			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Table 7-13 Alt 3 Trip Generation Results

Trip Generation Results									
Land Use	ITE LU Code	Quantity *(note 2)*	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Shopping Center	820	533.812 TSF	**210**	**129**	**512**	**627**	**680**	**1980**	**22,794**

1. Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).
2. TSF = Thousand Square Feet

Because Alternative 4 is anticipated to generate 22,794 daily trips it will be responsible for its fair share contribution and required improvements may not result in acceptable LOS for all intersections, and Alternative 4 would be required to contribute to these improvements in the same manner as the proposed project along with possible additional mitigation such as a traffic signal at the project's primary entrance.

This Alternative is expected to have a increased total VMT as a result of the increased number of commercial development. In addition, Alternative 4 would have an increased per capita VMT. Therefore, Alternative 4 would result in increased VMT and potentially significant impacts.

Tribal Cultural Resources

Under Alternative 4, the property would result in similar impacts to Tribal cultural resources as the proposed project because both scenarios would disturb the same area of the project site. Additionally, both projects would be required to engage in Tribal consultation of the site with local Tribes. Consistent with the requirements of **Section 4.13, *Tribal Cultural Resources***, development of Alternative 4 would avoid impacts associated with potential disturbance to Tribal cultural resources and would therefore have similar impacts compared to the proposed project. Neither Alternative 4 nor the proposed project have significant and unavoidable Tribal cultural impacts

Utilities and Service Systems

The General Commercial General Plan and Zoning Development Alternative would increase utilities, such as water service and supply, wastewater collection and treatment, solid waste, electricity, natural gas, and telecommunication services due to the increased intensity on the property.

Water

Water supply would be provided by the City of Blythe. Commercial development would likely generate a higher increase in water demand than the proposed project. A commercial development would have services that would be open to the general public and uses such as restaurants, offices, and hotels would have a higher daily water usage than the proposed project. Similar to the proposed project, additional water lines would also be required to support commercial development. Water demand would be reviewed by the City of Blythe to determine if adequate service could be provided. The proposed project would result in less than significant impacts than the General Commercial General Plan and Zoning Development Alternative since the proposed project is not open to the public. Compared with Alternative 2, the proposed project would reduce the year-round impact of water usage compared to commercial operations that are open to the public and likely have more employees. Water impacts from the proposed project would be less significant than the Commercial Alternative.

Wastewater

Similar to water services, wastewater produced would be increased with the operation of the General Plan Commercial Use Alternative. The City of Blyth would review the project and determine if adequate wastewater service could be provided to the site. However, like water, Alternative 4 would still be required to connect to sewer and add additional sewer lines and lift station to provide gravity sewer to the site to support commercial development. A commercial development would have services that would be open to the general public and uses such as restaurants, offices, and hotels would have a higher daily wastewater usage than the proposed project because they would likely have a greater number of employees working different shifts and would be open to the public.

The proposed project would result in impacts less significant than Alternative 4 since the proposed project is not open to the public. Compared with Alternative 4, this reduces the year-round wastewater impact of a commercial development that is open to the public. Wastewater impacts from the proposed project would be less significant than Alternative 4.

Solid Waste

Development of Alternative 4 would generate solid waste. Solid waste services would be provided by CR&R. The development of this alternative would require solid waste services for construction activities. However, construction waste produced by Alternative 4 would not be significant and would cease after the facilities were developed.

The operation of Alternative 4 would increase solid waste, correlated with the increased intensity of commercial uses. The increase of solid waste produced by the General Plan Commercial use would be higher than the amount of solid waste produced by the proposed project. A commercial development would have services that would be open to the general public and uses such as restaurants, offices, and hotels would generate more solid waste. The proposed project would result

in impacts less significant than the Commercial Alternative since the proposed project is not open to the public and would only be used by employees. Solid waste impacts from the proposed project would be less significant than the General Plan Commercial Use Alternative.

Electricity

Electricity would be required for construction and operation of Alternative 4. However, it is likely that electricity consumed by Alternative 4 may have a reduced demand to electrical services as compared to the proposed project. Alternative 4 would develop commercial buildings that could each operate independently with their own hours and employee staffing. The proposed project would be required to connect to SCE infrastructure to provide electricity to the project site. The increase of electrical demand for Alternative 4 would be supported by the infrastructure, with implementation of the same improvements as the proposed project. Neither project would result in significant and unavoidable impacts.

Natural Gas

Natural Gas, provided by Southern California Gas Company (SoCalGas), may be required for the operation of Alternative 4. SoCalGas would review the project and determine if adequate supply existed or if improvements were needed to support a commercial development. The proposed project does not plan to connect to natural gas as part of its development plan. Impacts to natural gas from the proposed project would be less significant than Alternative 4.

Telecommunications

The General Plan Commercial Alternative would be required to connect to existing telecommunication services, either by Frontier or Spectrum to provide telecommunication services to the project site. Additional infrastructure would not be required for the proposed project as determined in **Section 4.14, *Utilities and Service Systems.*** The increase of telecommunication demand for the site would be less than significant even with Alternative 4.

Summary of Comparative Impacts

A summary and comparison of impacts associated with the project alternatives is provided in **Table 7-14, *Comparison of Alternatives to Project***. As described above, under Alternative 4, increased impacts to air quality, energy (petroleum consumption), greenhouse gas emissions, noise, transportation, and utilities (water, wastewater, solid waste) would be anticipated due to public access to the project. Impacts to aesthetics, biological resources, cultural resources, geology and soils, public services, tribal cultural resources, and utilities (natural gas, telecommunications) would result in equal impacts compared to the project, while impacts to energy (electricity), hazards and hazardous materials, hydrology and water quality, and utilities (electricity) would be reduced under this Alternative compared to the project.

Relationship to Project Objectives

The following project objectives would not be achieved with Alternative 4:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;
- Be responsible civic and corporate citizens by providing employment opportunities to the City of Blythe and ensuring project licensing is compliant with the State of California cannabis business licensing;
- Provide a legal holistic, sustainable cannabis option to patients and consumers in Blythe.

7.6 Environmentally Superior Alternative

The purpose of the Alternatives analysis is to explain potentially feasible ways to avoid or minimize the significant effects identified for the project. State CEQA Guidelines, Section 15126.6(e)(2) also requires an EIR to identify an environmentally superior alternative among those evaluated in an EIR.

A summary and comparison of impacts associated with the project Alternatives is provided in **Table 7-14, *Comparison of Alternatives to Project***. Of the Alternatives considered in this Draft EIR section, the No Project Alternative is environmentally superior to the other Alternatives because this Alternative would avoid any impacts identified for the project or any other alternative.

Although Alternative 1 is environmentally superior, it does not meet any of the objectives of the proposed project because it would not involve development of the site. Additionally, there is no certainty that the project site would remain undeveloped in perpetuity. CEQA Guidelines Section 15126.6(e)(2) states that if the No Project alternative is identified as the environmentally superior alternative, then an environmentally superior alternative should be identified among the other alternatives.

Among the other alternatives, Alternative 2 (reduced density project) would be the environmentally superior alternative because it would cause incremental reductions with respect to impacts related to all of the environmental topics except aesthetics and geology and soils, where the impacts are expected to be similar to those resulting from the proposed project. Although impacts would be reduced under this Reduced Density Alternative compared to the proposed project, mitigation measures would still be required to mitigate impacts to air quality, biological resources, geology and soils, and hazards and hazardous material. In addition, Alternative 2 would not provide the same amount of employment and taxes compared to the proposed project, since Alternative 2 proposes a reduced density project.

Alternative 3 (Cannabis Development/Leased Buildings Alternative) and Alternative 4 (General Commercial General Plan and Zoning Alternative) would be likely to result in incremental increased impacts to air quality, energy (petroleum consumption), greenhouse gas emissions, noise, and

transportation. These increases in Alternative 3 are due to the increased employees and deliveries, since it is likely that each individual cannabis operation onsite would schedule deliveries convenient to their own schedule, and from different suppliers. The increased impacts with Alternative 4 are associated with its accessibility to the public. The development of Alternative 3 and 4 increases daily trips and VMTs, as well as air quality emissions associated with vehicles. Alternative 4 would have incrementally reduced impacts to energy (electricity), hazards and hazardous materials, hydrology and water quality, and utilities (electricity), while aesthetics, biological resources, cultural resources, geology and soils, public services, tribal cultural resources, and utilities (natural gas, telecommunications) would be about the same as the proposed project.

Alternative 3 would result in similar operations to the proposed project, therefore, Alternative 3 would meet the project's objectives of being a responsible civic and corporate citizens by providing employment opportunities to the City of Blythe and ensuring project licensing is compliant with the State of California cannabis business licensing; diversify Blythe's economic and general commercial base; and bringing economic growth to Blythe including employment, taxes and an associated multiplier effect. Alternative 4 would result in land uses which are typical of the current land use pattern in the City. Therefore, this Alternative would meet the project objective to generate economic growth to Blythe including employment, taxes and an associated multiplier effect. However, Alternative 4 would not meet the other project objectives. Due to the fact that Alternatives 3 and 4 do not reduce impacts compared to the proposed project, and do not meet project objectives, Alternatives 3 and 4 are not considered environmentally superior to the proposed project.

Table 7-14 Comparison of Alternatives and Project

Environmental Topic	Impacts of the Proposed Project	Alternative 1 No Project	Alternative 2 Reduced Density	Alternative 3 Cannabis Development/Leased Buildings	Alternative 4 General Commercial General Plan/Zoning Development
Aesthetics	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Air Quality	Less than Significant with Mitigation	Reduced (No Impact)	Reduced (Less than Significant with Mitigation)	Increased (Less than Significant with Mitigation)	Increased (Potentially Significant)
Biological Resources	Less than Significant with Mitigation	Reduced (No Impact)	Reduced (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Cultural Resources	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Energy	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Increased (Less than Significant)	Reduced Electricity; Increased Petroleum Demand (Less than Significant)
Geology and Soils	Less than Significant with Mitigation	Reduced (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)
Greenhouse Gas	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Increased (Less than Significant with Mitigation)	Increased (Potentially Significant)
Hazards and Hazardous Materials	Less than Significant with Mitigation	Reduced (No Impact)	Similar construction; Reduced operational (Less than Significant with Mitigation)	Increased (Less than Significant with Mitigation)	Similar construction; Reduced operational (Less than Significant with Mitigation)
Hydrology and Water Quality	Less than Significant with Mitigation	Reduced (No Impact)	Similar (Less than Significant with Mitigation)	Similar (Less than Significant with Mitigation)	Reduced (Less than Significant with Mitigation)
Noise	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Increased (Less than Significant with Mitigation)	Increased (Less than Significant with Mitigation)

Public Services	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Increased (Less than Significant)
Transportation	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Increased (Less than Significant)	Increased (Potentially Significant and Unavoidable Impacts)
Tribal Cultural Resources	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Similar (Less than Significant)	Similar (Less than Significant)
Utilities & Service Systems	Less than Significant	Reduced (No Impact)	Reduced (Less than Significant)	Increased Electricity, Water; Similar Other (Less than Significant)	Increased water, wastewater, solid waste; Reduced Electricity; Similar Others (Less than Significant)

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR
SCH# 2021120031
TECHNICAL APPENDICES

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix A
Notice of Preparation & Public Comment Letters

May 2022

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Notice of Preparation

To: _____ **From:** Mallory Crecelius; email: msutterfield@cityofblythe.ca.gov

_____ 235 N. Broadway

(Address) Blythe, CA 92225 (Address)

Subject: Notice of Preparation of a Draft Environmental Impact Report

The City of Blythe will be the Lead Agency and will prepare an environmental impact report for the project identified below. We need to know the views of your agency as to the scope and content of the environmental information which is germane to your agency's statutory responsibilities in connection with the proposed project. Your agency will need to use the EIR prepared by our agency when considering your permit or other approval for the project.

The project description, location, and the potential environmental effects are contained in the attached materials. A copy of the Initial Study (☒ is ☐ is not) attached.

Due to the time limits mandated by State law, your response must be sent at the earliest possible date but not later than 30 days after receipt of this notice.

Please send your response to Mallory Crecelius at the address shown above. We will need the name for a contact person in your agency.

Project Title: Edelweiss Sustainable Farms Project

Project Applicant, if any: Edelweiss Sustainable Farms, LLC, c/o Patrick Kelly

Date _____ Signature _____

Title Interim City Manager and City Clerk

Telephone (760) 922-6161 Ext. 1237

Reference: California Code of Regulations, Title 14, (CEQA Guidelines) Sections 15082(a), 15103, 15375.

Initial Study for

Edelweiss Sustainable Farms Project

Lead Agency:

City of Blythe
Development Services Department
235 North Broadway
Blythe, CA 92225

Prepared by:
MSA Consulting, Inc.
34200 Bob Hope Drive
Rancho Mirage, CA 92270

October 2021

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ENVIRONMENTAL CHECKLIST

Initial Study

1. Project Title:	Edelweiss Sustainable Farms
2. Lead Agency Name and Address:	City of Blythe Development Services Department 235 North Broadway Blythe, CA 92225
3. Contact Person and Phone Number:	Mallory Crecelius Acting City Manager and City Clerk (760) 922-6161
4. Project Location:	APN 836-100-007 South of Hobson Way between Defrain Blvd. and Lovekin Blvd. Blythe, CA 92225
5. Project Sponsor's Name and Address:	Edelweiss Sustainable Farms, LLC c/o Patrick Kelly 56540 Chipmunk Trail Yucca Valley, CA 92284
6. General Plan Designation:	General Commercial
7. Zoning:	General Commercial

8. Description of Project:

Edelweiss Sustainable Farms, LLC (the Applicant) is proposing to develop the Edelweiss Sustainable Farms Cultivation Facility ("proposed project"), a commercial complex specialized for indoor cultivation of cannabis, in the City of Blythe. The proposed project would be developed on approximately 34 acres (APN 836-100-007) located in western Blythe, north of Interstate 10. (See **Exhibit 1**: Project Location, and **Exhibit 2:** Existing Conditions.) The proposed project would include development of 12 buildings for the processing and cultivation of cannabis. (See **Exhibit 3**: Site Plan.) At build out the total gross building floor area will be 533,812 square feet (450,594 net square feet). The project is proposed to be developed in three phases. In addition to the twelve buildings, the proposed project also includes two landscaped retention basins located in the center of the site between buildings 1 and 7, and 6 and 12. The site plan includes 736 parking spaces, internal paved drive aisles, and landscaping throughout. Landscaping has been designed to balance

aesthetic, water use and security objectives. The project landscape will include large drought-tolerant flowering trees and shrubs typically found in the region such as Palo Verde, Date Palm, tipu tree, and mesquite. Turfgrass will be used in the retention basins. Exterior irrigation will use drip or micro-spray applicators to avoid overwatering and promote water efficiency.

All cannabis processing activities will take place within individual units, including planting, curing, trimming and packaging, and shipping. Currently the project is used for farming. Approximately 26 acres of the site are utilized for crop row cultivation, while the remaining 7 acres consist of perimeter access roads and irrigation channels. The onsite agricultural operations have been representative of the property use since 1948. Review of the web mapping application platform maintained by the County of Riverside, as it pertains to the Agricultural Commissioner's Agricultural Crop records, indicated that recent onsite crops were either cotton or alfalfa.

Land Use

The property is designated in the City's General Plan and zoning code as "General Commercial", which is intended to provide for development of community-scale commercial centers with market areas often extending beyond the City limits and immediate environs. Commercial lands along Hobsonway support neighborhood and tourist, as well as community-scale needs. Commercial cannabis operations are an allowed use under the General Commercial designation.

Design

Building design for the proposed project will be typical of a commercial growing and processing building for cannabis. Materials utilized for the building's exterior will include corrugated metal panels, which will avoid visual monotony along the building frontages. The proposed primary exterior building color will be sandstone, while the secondary exterior building color for the project trim, patio, and doors will include brownstone. Landscaping, such as trees, bushes, and shrubs will also be located along the building frontages. Wall-mounted light fixtures will provide security lighting along the building's exterior.

Architectural design of the project will be subject to the City's design review process to ensure a quality building aesthetic from the adjoining public street. The fence and building facade fronting Hobsonway will be designed with architectural elements consistent with the surrounding desert and agricultural environment. The overall architectural appearance is intended to be a modern and well-maintained industrial park with high quality perimeter fencing to provide a secure site. Landscaping along Hobsonway will be designed to incorporate low water use native plant species that can improve the visual quality of the facility without interfering with visibility from law enforcement vehicles.

Landscaping

Project landscaping has been designed to balance aesthetic, water use, and security objectives. The

project landscape will include large drought-tolerant trees, palms, and ground covers, such as mulga, smoothie thornless cascalote, desert museum palo verde, thornless mesquite, pink dawn chitalpa, tipu tree, and date palm. Ground covers proposed for the project includes brittle bush, resin spurge, thunder cloud Texas sage, and senna. Turfgrass is also proposed in the proposed retention areas. The landscape areas proposed for the site and the retention basins will occupy approximately 8.80 acres of the site. Existing Palo Verde Irrigation District (PVID) irrigation channels are located along the northern and western property boundaries. No project-related development will occur within these areas and will be maintained by PVID. A PVID managed irrigation canal, referred to as "C Canal," is located along the eastern property boundary. The irrigation canal includes operable irrigation gates located either between the dirt access roads and the active agricultural fields or on the side of the access road. The property accepts agricultural irrigation from C Canal and existing Drain Lines along the north and west boundaries. Irrigation water empties into the irrigation channels then the row crops via the irrigation gates. A chain link fence separates the property from the I-10 right-of-way (ROW).

Circulation and Security

Security for the site and for employees will be incorporated into the site design and operational plans. The primary driveway into the site will be gated with two, 12-foot swing gates (ingress and egress). The gated driveway will be met by an unmanned guard house by Guard-Buildings.com. Two additional gated emergency access points are proposed at the northwestern and northeastern corners of the property, providing access to Hobsonway. The emergency access points will be gated with two, 12-foot swing gates. The site will be secured by an eight-foot-high fence equipped with security monitoring cameras, and a high-security front entrance. Individual units will be equipped with alarm systems and exterior lighting. The City of Blythe will also provide police and fire protection for the site.

Processed market-ready cannabis product will be loaded onto trucks within secured spaces inside each unit. At full buildout, the proposed facility would be staffed by approximately 534 employees. All staff will be subject to standard background checks, and adherence to security procedures. Public access to the facility will be strictly controlled. No minors will be allowed within the facility at any time.

Utilities

Domestic water will be provided to the project site by the City of Blythe. Sewer services will also be provided to the site by the City of Blythe. The project proposes sewer infrastructure throughout the project that will consist of gravity sewer lines, lift stations, and force mains, which will connect to the City of Blythe's existing sewer system along Hobsonway.

Electricity will be provided by Southern California Edison (SCE) and Gas services are provided by the Southern California Gas Company. The project will primarily utilize electricity for power.

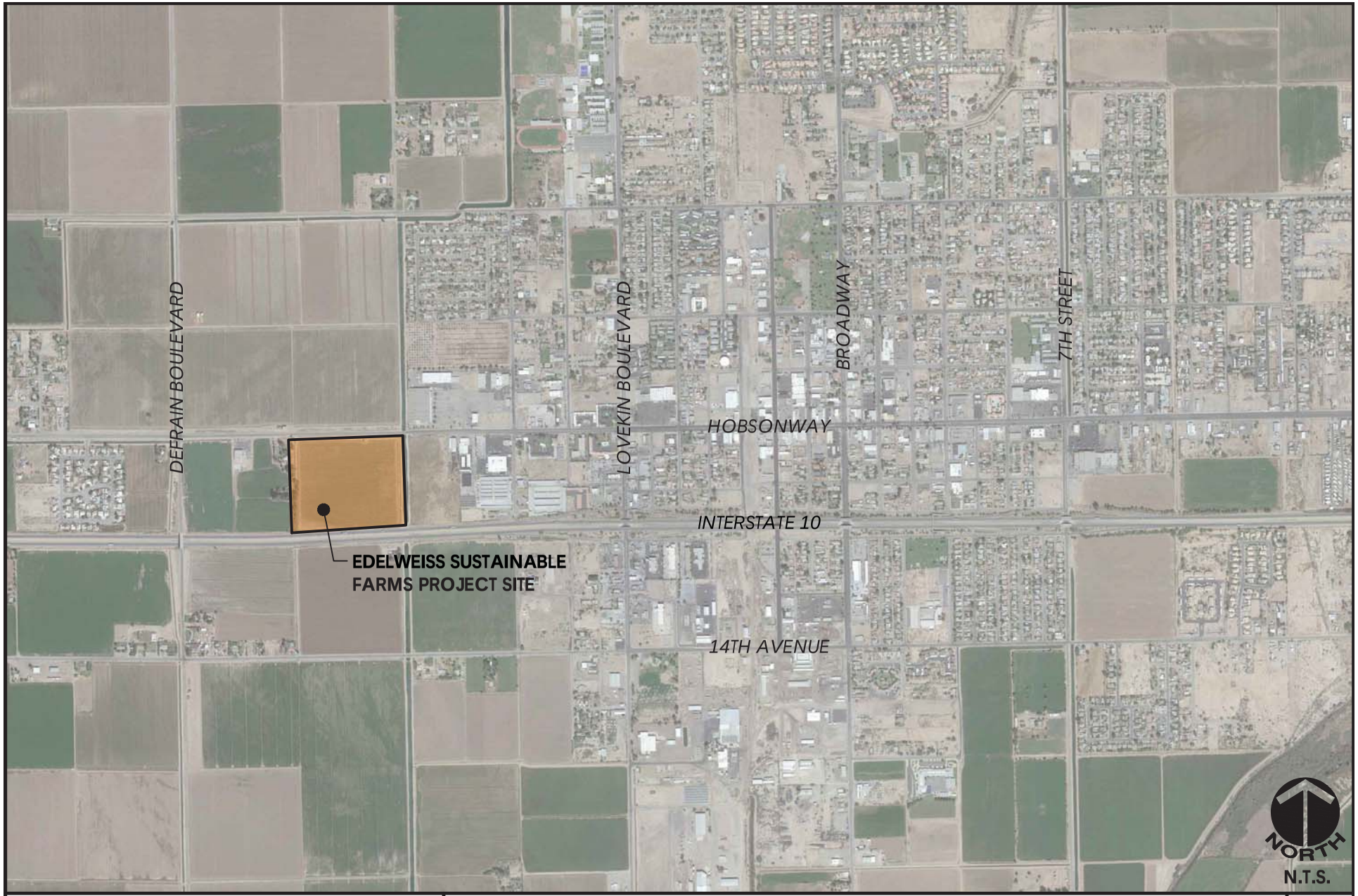
Offsite Improvements

The project proposes to connect to the City of Blythe's existing sewer system in Hobsonway. The project's proposed sewer lines will extend approximately 1,200 feet to connect to an existing manhole located east of the project property (in Hobsonway). Project-related offsite improvements will include connecting underground sewer lines to the City's existing sewer infrastructure.

Phasing

Project construction will occur in three (3) primary phases. Phased development will be accompanied by the orderly extension of circulation and parking facilities, public utilities, and infrastructure in accordance with the final conditions of approval for the project.

Phase 1 construction will commence with Buildings 1 and 2 and the northern retention basin. Phase 2 will develop Buildings 5 and 6, and then Buildings 3 and 4. Phase 3 construction would develop Buildings 7 and 8, then Buildings 11 and 12, and conclude with Buildings 9 and 10.



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34200 Bob Hope Drive, Rancho Mirage, CA 92270
760.320.9811 **msaconsultinginc.com**

REGIONAL AERIAL PHOTOGRAPH

EDELWEISS SUSTAINABLE FARMS, LLC.
CITY OF BLYTHE

EXHIBIT
1

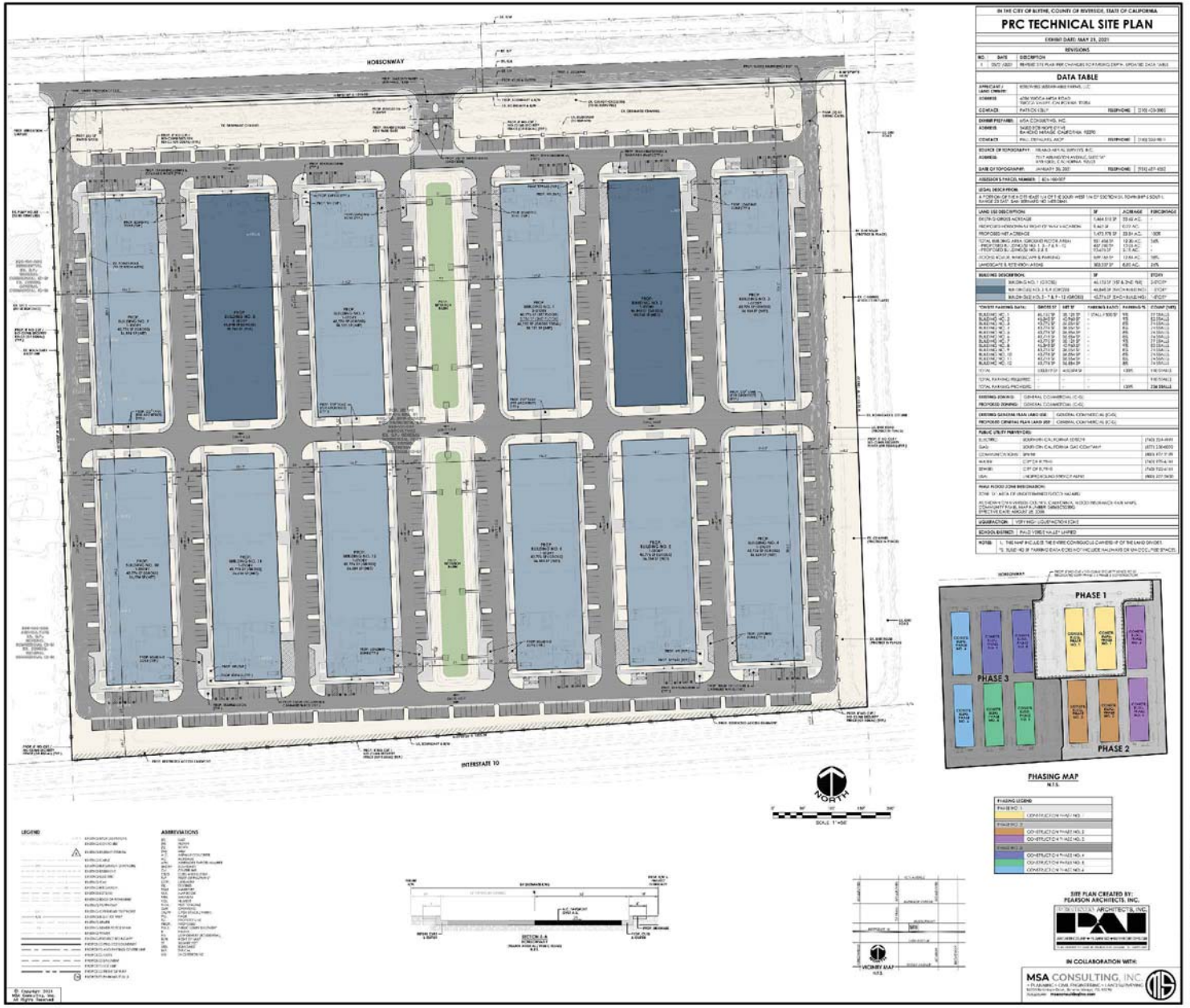


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AERIAL PHOTOGRAPH

EDELWEISS SUSTAINABLE FARMS, LLC.
CITY OF BLYTHE

EXHIBIT
2



NORTH

N.T.S.

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PROJECT SITE PLAN

EDELWEISS SUSTAINABLE FARMS, LLC.

CITY OF BLYTHE

EXHIBIT

3

9. Surrounding Land Uses and Setting:

The project site is located north of I-10 and south of Hobsonway. The property is separated from I-10 by chain-link fencing. Land uses north of Hobsonway, and south of I-10 include agricultural land, similar to the existing conditions at the project property. Land to the east includes a PVID managed irrigation canal identified as C Canal. Lands east of C Canal includes vacant land and existing commercial structures. Land to the west includes agricultural land with at least one residential structure and various smaller ancillary structures.

10. Project History

The project currently operates as an agricultural field. A review of historic aerial photographs and U.S. Geological Survey topographic maps indicate that the project site served for agricultural uses since at least 1948. The former agricultural fields associated with the site may have covered a larger area until the 1960s, when construction of Interstate 10 to the south appears to have included right-of-way dedications truncating the southernmost portion of the fields. Moreover, from 1948 to 1976 a structure, or small group of structures, occupied the northeast corner of the site, with access from Highway 60 (Hobsonway) on the north. Currently there are no visible surface remnants of this former structure(s).

The USGS topographic map from 1970 to 1986 (Blythe, CA 7.5-minute Quadrangle) identifies two small structures at the northeast corner of the site, which have since been demolished, as noted above. Other than the adjacent C Canal operated by PVID, no other topographic or geologic features are mapped in relation to the property.

11. Project Objectives

The Edelweiss Sustainable Farms project's objectives are as follows:

- Cultivate and manufacture pesticide free, top-tier cannabis products from an environmentally conscious, state of the art, sophisticated, agri-business campus;
- Bring a sustainable and expandable model of commerce to Blythe;
- Diversify Blythe's economic and general commercial base;
- Bring economic growth to Blythe including employment, taxes and an associated multiplier effect; and
- Provide a legal holistic, sustainable option to patients and consumers in Blythe.

12. Other Public Agencies Whose Approval is Required:

The following entitlements are applicable to the project and involve other public agencies whose approval may be required:

- Development Agreement to establish required public improvements, security measures, and City revenue.
- Site Plan and Design Review to address configuration, location, design and impacts in compliance with the City's zoning and design guidelines
- City Grading Permit for all site preparation activities
- National Pollutant Discharge Elimination System (NPDES) General Construction Stormwater Permit, Colorado River Regional Water Quality Control Board
- Dust Control Plan Approval, Mojave Desert Air Quality Management District
- Authority to Construct/Permit to Operate for all stationary sources (including any natural gas-fired electrical generators and air conditioning units), Mojave Desert Air Quality Management District

Environmental Factors Potentially Affected

The project could potentially affect the environmental factor(s) checked below. The following pages present a more detailed checklist and discussion of each environmental factor.

☒ Aesthetics	☐ Agriculture Resources	☒ Air Quality	☒ Biological Resources
☒ Cultural Resources	☒ Energy	☒ Geology & Soils	☒ Greenhouse Gases
☒ Hazards & Haz. Materials	☒ Hydrology & Water Quality	☐ Land Use & Planning	☐ Mineral Resources
☒ Noise	☐ Population / Housing	☒ Public Services	☐ Recreation
☒ Transportation	☒ Tribal Cultural Resources	☒ Utilities Service Systems	☐ Wildfire
☒ Mandatory Findings of Significance			

DETERMINATION: (To be completed by Lead Agency)

On the basis of this initial study:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☐ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☒ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

_____ _____

Signature Date

Mallory Crecelius Acting City Manager & City Clerk

Printed Name City of Blythe

Aesthetics

1. AESTHETICS -- Would the project**:**	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☒	☐	☐	☐
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning or other regulations governing scenic quality?	☒	☐	☐	☐
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact**. The Edelweiss Sustainable Farms property is located south of Hobsonway, north of Interstate 10 freeway, and approximately 0.25 miles west of South Carlton Avenue. The project site currently operates as an agricultural field, similar to the existing uses north, west, and south of the property. Scenic vistas in the City of Blythe include views of the distant mountain ranges. Views of these mountain ranges can be observed along the public roads such as Hobsonway and Interstate 10 freeway.

Views from the project site include the Palo Verde Mesa to the west, the Big Maria Mountains to the north, and the Dome Rock Mountains to the east. Views of the Palo Verde Mesa to the west and Dome Rock Mountains to the east are distant and largely obstructed by existing vegetation, structures, and manmade infrastructure. Development of the proposed project would not further obstruct views of these landforms from surrounding roadways and properties. Views of the Big Maria Mountains to the north are distant and largely obstructed by existing structures, utilities, and landscaping.

The project proposes eleven, one-story buildings and one, two-story building for the cultivation and processing of cannabis. An associated parking lot within a landscaped perimeter and fenced limits will conclude in a total area of approximately 34 acres. The overall architectural character will be that of a well-maintained commercial cultivation and manufacturing facility. All architectural plans will require review by the City prior to construction. Proposed downward-oriented lighting mounted on the building walls and on posts will provide the necessary nighttime

illumination for facility security in the parking lot and drive aisles. Offsite improvements will connect the project's proposed sewer lines to the City's existing infrastructure in Hobsonway. Offsite impacts to scenic vistas viewed along Hobsonway will be short-term and will conclude when the project has connected to the City's sewer system.

Development of the project site may result in obstructed views of the distant mountain ranges. Impacts of the proposed project on scenic vistas will be analyzed further in the Draft Environmental Impact Report (DEIR).

b) **Potentially Significant Impact**. The proposed project occurs south of Hobsonway and north of Interstate 10 freeway. The project site currently operates as an agricultural field. The property does not contain any landmarks or scenic resources, such as trees, rock outcroppings, or historic buildings that may be altered or damaged by utilization of the site.

A review of the California State Scenic Highway Program determined that the project site is not located within or near a designated State Scenic Highway. However, according to the Riverside County Palo Verde Valley Area Plan, there are two highways that have been nominated for County Scenic Highway status due to their scenic value. The two highways are U.S. Highway 95 as it extends north from Interstate 10 to the San Bernardino County line, and Interstate 10 from the western boundary of the planning area to the Colorado River. These roadways currently have status as Eligible County Scenic Highways. Although the project is not located near a State designated Scenic Highway, the DEIR will analyze the project's impact on views along these two scenic corridors listed by the County of Riverside.

c) **Potentially Significant Impact**. The project site currently operates as an agricultural field. The visual character of the site is defined by agricultural row crops, similar to the properties north, west, and south of the project. Areas east of the project are defined by vacant land and commercial buildings and businesses. The project proposes 12 buildings for the cultivation and manufacturing of cannabis within the City of Blythe's General Commercial (C-G) land use and zoning designation. The project will comply with the City of Blythe's Municipal Code, Title 17 (zoning ordinance) related to development and performance standards for projects within C-G zones. Project-related offsite improvements includes the project's connection to the City's existing sewer infrastructure in Hobsonway. Offsite impacts to scenic quality viewed along Hobsonway will be short-term and will conclude once the project has connected to the City's sewer system. Although, the project will comply with the City's Municipal Code for visual character, impacts of the proposed project will be analyzed further in the DEIR.

d) **Potentially Significant Impact**. The project site and surrounding properties are currently characterized by agricultural land uses. These uses do not contribute to significant light or

glare in the area. The project site, and areas west and east, lies within the City of Blythe's General Commercial land use designation. Development and operation of the proposed project will introduce additional light to the area. Lighting from commercial buildings is expected to create a new source of nighttime lighting for both operational and security purposes. Additional lighting in commercial areas typically consists of overhead/downward-orienting lamp posts in parking areas, low-intensity, wall-mounted lighting fixtures at building entrances and lamp posts along pedestrian pathways. Project impacts of new light in the area will be analyzed in the DEIR.

References

City of Blythe General Plan 2025, March 2007.

Agricultural and Forest Resources

2. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Conflict with existing zoning for, or cause rezoning of forest land, timberland, or timberland zoned Timberland Production?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

Discussion

a) **No Impact**. The project site and surrounding lands includes land classified as Prime Farmland and Farmland of Statewide Importance (California Department of Conservation, 2018). In its existing condition, the property is characterized primarily by active agricultural uses consisting of cultivated row crops on approximately 26 acres. The cultivated area is defined by the tilled soil rows on a relatively level ground surface. Per the Riverside County Agricultural Commissioner's Office, the crop grown onsite was either cotton or alfalfa. The project site is currently designated as General Commercial by the City of Blythe. General Commercial (C-G) land uses are intended to provide for development of community-scale commercial centers with market areas often extending

beyond the City limits and immediate environs. California Health and Safety Code Section 11362.777(a) and Business and Profession Code Section 26067(a) define medical and adult-use cannabis as agricultural products. Regulation and licensing of cannabis growing is managed by the Department of Cannabis Control (DCC). Regulations include not only compliance with environmental requirements such as the regional water board cultivation permits, but with regulations concerning pesticide use, testing, sales, distribution, and a host of other standards similar to those faced by commercial agricultural producers in California. Since California law designates cannabis as an agricultural product, cultivation of cannabis on the project site would not result in the conversion of farmland to nonagricultural use. Therefore, the project would have no impact, and no further study in the Draft EIR is required.

b) **No Impact.** The project site is not zoned for agricultural use established by the City of Blythe. Additionally, the project area is not subject to a Williamson Act contract. The closest property with a Williamson Act contract is located approximately 0.58 miles northwest of the project site. Therefore, the project would not conflict with existing zoning for agricultural use or a Williamson Act contract. No impacts are anticipated. No further study in the DEIR is required.

c) **No Impact.** The project site is not zoned for forest land or timberland. Therefore, the project would have no impact on forest resources, and no further study within the DEIR is required.

d) **No Impact.** Forest land [as defined by California Public Resources Code section 12220(g)] is land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits. The project site does not fit this definition of forest land. Therefore, the project would have no impact on forest resources and no further study in the DEIR is required.

e) **No Impact.** The project would not involve other changes in the existing environment that, due to their location or nature, could result in conversion of forestland to non-forest use. The project site is currently utilized as farmland. The project proposes to develop 12 buildings for the cultivation of cannabis. The State of California considers cannabis as an agricultural product, therefore the proposed project would not covert the site from farmland to non-agricultural uses.

References

Important Farmland 2018, California Farmland Mapping and Monitoring Program, California Department of Conservation, accessed July 2021.

Air Quality

3. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☒	☐	☐	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
d) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact**. The project site and its regional context within the Palo Verde Valley are situated within the Riverside County portion of the Mojave Desert Air Basin (MDAB), under jurisdiction of the Mojave Desert Air Quality Management District (MDAQMD). Existing air quality in relation to the applicable air quality standards for criteria air pollutants is measured at established air quality monitoring stations throughout the MDAQMD jurisdiction.

To comply with the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS), MDAQMD has adopted an applicable air quality plan for the basin known as the 2004 Ozone Attainment Plan (MDAQMD, 2004). The purpose of the Plan is to address the attainment and maintenance of State and federal ambient air quality standards. The MDAQMD has adopted the control measures recommended in the Plan in its Rules and Regulations. The MDAQMD has also adopted fugitive dust control requirements in its Rule 403.

Development and operation of the project has the potential to impact air quality due to the emissions generated by employee traffic and the transportation of materials and products, therefore a project-specific air quality study will be conducted to evaluate whether construction and operation of the proposed development will comply with the applicable MDAQMD air quality standards. The Draft EIR will discuss and analyze the findings of the project's air quality study and indicate whether mitigation measures are required.

b) **Potentially Significant Impact**. Intermittent (short-term construction emissions that occur from activities, such as site-grading, paving, and building construction) and long-term air

quality impacts related to the operation of the project will be analyzed in the project's air quality study. The air quality study will analyze whether the project would result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard. The findings of the air quality study will be discussed and analyzed in the Draft EIR. Mitigation measures, if required, will also be discussed in the Draft EIR.

c) **Potentially Significant Impact.** A sensitive receptor is a person in the population who is particularly susceptible (i.e., more susceptible than the population at large) to health effects due to exposure to an air contaminant. Land uses such as schools, children's daycare centers, hospitals, and convalescent homes are considered to be more sensitive than the general public to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress. Persons engaged in strenuous work or exercise also have increased sensitivity to poor air quality. The CARB has identified the following people as most likely to be affected by air pollution: children less than 14 years of age, the elderly over 65 years of age, athletes, and those with cardiovascular and chronic respiratory diseases. These groups are classified as sensitive population groups.

Sensitive receptors and the facilities that house them are of particular concern if they are located in close proximity to localized sources of carbon monoxide, toxic air contaminants, or odors. Land uses considered to be sensitive receptors may include residences, long-term health care facilities, schools, rehabilitation centers, playgrounds, convalescent centers, childcare centers, retirement homes, and athletic facilities.

The Draft EIR will study in further detail the locations of sensitive receptors in the local context. The project specific CalEEMod results will then be compared to the Localized Significance Threshold (LST) Methodology established by AQMD to support the findings of significance.

d) **Potentially Significant Impact.** Any project with the potential to frequently expose members of the public to objectionable odors will be deemed to have a significant impact. As a general matter, the types of development that pose potential odor problems include agriculture, food processing, dairies, rendering, refineries, chemical plants, wastewater treatment plants, landfills, composting facilities, and transfer stations.

The project would have the potential to generate cannabis odors inside the proposed cultivation buildings. The project would be required to include odor control technology consistent with the City of Blythe's Municipal Code requirements to ensure odors are not detected off-site. The Draft EIR will analyze the project's potential impact to people affected by other emissions, such as odors. The Draft EIR will also indicate whether mitigation is necessary.

References

California Air Pollution Control Officers Association, *CalEEMod User's Guide Version 2016.3.2*, November 2017, http://www.aqmd.gov/docs/default-source/caleemod/01_user-39-s-guide2016-3-2_15november2017.pdf?sfvrsn=4

Mojave Desert Air Quality Management District, *2004 Ozone Attainment Plan (State and Federal)*, April 26, 2004, http://mdaqmd.ca.gov/home/showdocument?id=174

Biological Resources

4. **BIOLOGICAL RESOURCES** -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☒	☐	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☒	☐	☐	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☒	☐	☐	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☒	☐	☐	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☒	☐	☐	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact**. The proposed project site currently operates as agricultural land with row crops. The north boundary of the project is defined by an irrigation channel and delineated by Hobsonway; the eastern boundary is met by Canal C (maintained by Palo Verde Irrigation District) and vacant land; the southern boundary is met by Interstate 10; and the western boundary is met by an existing residence and agricultural field. The project site has very little potential to contain candidate, sensitive or special status plant or wildlife species due to its previous and current operation as an agricultural field. However, a biological resources study will be conducted by a qualified biologist to determine the site's existing biological resources and determine the presence of any sensitive species. The Draft EIR will further analyze potential impacts to sensitive plant or animal species.

b) **Potentially Significant Impact**. As previously discussed, the site served as agricultural land in past decades. A biological resource study will be prepared and the Draft EIR will address any potential impacts to riparian habitat or other sensitive natural community.

c) **Potentially Significant Impact**. The project has been impacted by the agricultural operations onsite, and does not contain federally protected wetlands, marshes or other natural drainage features. No blue-line stream corridors (streams or dry washes) are shown on U.S. Geological Survey maps for the project site. According to the Blythe General Plan, the City consists of bands of riparian vegetation along the banks of the Colorado River, and a limited but important growth of riparian vegetation along the agricultural canals and drains. The majority of the riverbank vegetation is tamarisk, an introduced species, and arrow-weed, a native shrub. The many unlined canals and drains throughout the study area support a riparian scrub of saltbush, quail bush, and arrow-weed, with cattails occurring in a few locations. These strips of wetland vegetation provide good habitat for many wildlife species. As previously stated, the project is surrounded on three sides by existing irrigation channels and an agricultural irrigation canal to the east, managed by PVID. A biological resources study will be prepared for the project site that will address potential project impacts regarding the direct removal, filling or other hydrological interruption to any of these resources.

d) **Potentially Significant Impact**. The project′s previous use as an agricultural field, as well as the surrounding agricultural and commercial uses west, north, and east of the project do not present ideal conditions for wildlife corridors or native wildlife nursery sites. Additionally, the project′s northern and southern boundaries are delineated by Hobsonway and Interstate 10, respectively. The project′s proximity to these roadways does not provide ideal conditions for wildlife corridors or native wildlife nursery sites. A project-specific biological resources study will be prepared for the project site that will address potential project impacts regarding the movement of any native or resident wildlife species, migratory wildlife corridors, or wildlife nursery sites.

e) **Potentially Significant Impact**. The project lies within the boundary of the Lower Colorado River (LCR) Multi-Species Conservation Plan (MSCP) which outlines policies for the conservation habitats and natural communities along areas adjacent to the Colorado River, including the City of Blythe. Additionally, the City of Blythe General Plan Open Space and Conservation Element sets forth policies to achieve goals related to the preservation of biological resources within the City. As previously stated, a project-specific biological resources survey will be conducted at the site to determine the potential for sensitive and protected species within the project area. The biological report will determine whether mitigation measures are required to protect the biological resources. In addition to the biological field survey to be conducted at the project site, the

biological report and Draft EIR will analyze the project's consistency with adopted habitat policies and plans, including the Lower Colorado River Multi-Species Conservation Plan.

f) **Potentially Significant Impact**. As stated above, the project occurs within the boundaries of the adopted LCR MSCP, within areas of Reach 4 identified as Developed, and outside areas targeted for conservation. Although the project does not occur within a conservation area established by the LCR MSCP, the determination of whether any suitable habitat exists on the project site will be analyzed during the project-specific biological resources study and discussed in the Draft EIR.

References

Lower Colorado River Multi-Species Conservation Program, Final Habitat Conservation Plan, December 17, 2004; https://www.lcrmscp.gov/publications/hcp_volii_2004.pdf

City of Blythe General Plan 2025, March 2007, https://www.cityofblythe.ca.gov/DocumentCenter/View/302/General-Plan-2025---Entire-Document?bidId=

Cultural Resources

5. CULTURAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	☒	☐	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	☒	☐

Discussion

a) **Potentially Significant Impact.** The project site has operated as agricultural land for decades. Agricultural operations included grading the site, as well as tilling the land, and harvesting the crops. This constant cycle of growing and harvesting crops make it unlikely that historical resources exist onsite. However, a project-specific cultural resources report will be prepared by a qualified archaeologist to determine the likelihood for presence or absence of historical resources and the potential for any significant impacts thereto. The results will be used as part of the analysis for the Draft EIR to determine impacts to archaeological resources.

b) **Potentially Significant Impact.** The project currently operates as agricultural land. The potential for uncovering archaeological resources is low because the project has been previously graded and no areas outside the previously graded development footprint are proposed. However, a project-specific cultural resources report will be prepared by a qualified archaeologist to determine the likelihood for presence or absence of archaeological resources and the potential for any significant impacts thereto. The results of the cultural resources report will be used as part of the analysis for the Draft EIR to determine the impacts to archaeological resources.

c) **Less than Significant Impact.** the site has been previously disturbed, graded, and utilized as agricultural land. The project is not anticipated to disturb any human remains, including those interred outside of formal cemeteries, because no development activities are proposed outside the footprint of the prior development activities. In addition, the project would comply with California Health and Safety Code Section 7050.5, and the CEQA Guidelines Section 15064.5, which require that in the event of discovery or recognition of any human remains in any location other than a dedicated cemetery, there shall be no further excavation or disturbance of the site, or any nearby area reasonably suspected to overlay adjacent remains, until the County Coroner has examined the remains. Mandatory

compliance with these state law provisions would ensure less than significant impacts. No further analysis is needed.

Energy

6. ENERGY -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	☒	☐	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy of energy efficiency?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact.** The approximately 34-acre project proposes 12 buildings for the indoor cultivation and processing of cannabis south of Hobsonway and north of Interstate 10 freeway in the City of Blythe. The project proposes 11 one-story buildings and 1 two-story building. Total buildout of the project would result in 533,812 gross square feet of commercial buildings for cannabis operations. Associated improvements include pedestrian walkways and sidewalks, parking spaces, retention, and landscaping throughout. Project-related offsite improvements include connecting the project's proposed sewer system to the City's existing sewer infrastructure in Hobsonway. The project property currently operates as an active agricultural field.

The project will consume energy in the form of electricity, natural gas, and petroleum during construction and operation of the site. Electricity and natural gas will be provided to the project site by Southern California Edison (SCE) and Southern California Gas Company (SoCalGas), respectively. Electricity will be the primary power sources utilized at the project site. The development and operation of the 12 proposed cultivation buildings will increase the amount of energy consumed at the project site. Offsite improvements will include the connection of the project's proposed sewer lines to the City's existing sewer infrastructure along Hobsonway. Therefore, development and operational impacts of the project to energy resources, including electric, gas, and petroleum, will be analyzed in depth in the Draft EIR.

b) **Potentially Significant Impact.** The approximately 34-acre project proposes the development of 12 buildings for the cultivation and manufacturing of cannabis. State and local plans have been established to set goals and guidelines to enforce the implementation of energy efficient building materials and features. The Draft EIR will analyze the project's potential to obstruct a state or local plan for renewable energy or energy efficiency.

Geology and Soils

7. GEOLOGY AND SOILS -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☒	☐	☐	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating direct or indirect substantial risks to life or property?	☒	☐	☐	☐
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource of site or unique geologic feature?	☒	☐	☐	☐

Discussion

a.i) **Potentially Significant Impact.** An active fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 11,000 years). A potentially active fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years) unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. Sufficiently active is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches. (Hart, 1997).

The Alquist-Priolo Earthquake Fault Zoning Act requires the delineation of zones by the California Department of Conservation, Geological Survey (CGS) along sufficiently active and well-defined faults. The most recent listing of Earthquake Fault Zones under the Alquist-Priolo Earthquake Fault Zoning Act does not include Blythe or the surrounding area. The closest Alquist-Priolo Earthquake Fault Zone to the project site is located approximately 63 miles southwest of the project, associated with the San Andreas Fault Zone. Due to the distance of the project site from the closest Alquist-Priolo Earthquake Fault Zone, surface fault rupture is considered to be unlikely at the project site, located in the Palo Verde Valley.

Although the project site is not located in an Alquist-Priolo Earthquake Fault Zone and is not located on or immediately adjacent to an active fault, the Draft EIR will analyze the potential impacts for rupture to occur on the project site.

a.ii) **Potentially Significant Impact.** Several factors influence the amount of ground shaking at any locality. The principal ones are the distance from the epicenter of the fault movement and the local bedrock-soil conditions. Bedrock areas will have a different shaking impact compared with areas underlain with softer, less consolidated materials.

The Draft EIR will discuss the project's relation to existing faults as well as the underlying soil conditions at the project site. Impacts of seismically induced ground shaking at the project site will analyzed further in the Draft EIR.

a.iii) **Potentially Significant Impact.** Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. According to the Blythe General Plan Final EIR, the Palo Verde Valley is within a zone of potential liquefaction. Due to the shallow groundwater depth and alluvial nature of the soil (silts, sands, and sandy silts), the risk of liquefaction as a result of a major earthquake in fault systems located west of the City are considered moderate.

Impacts of seismically induced liquefaction at the project property will be analyzed in the Draft EIR.

a.iv) **Potentially Significant Impact.** Slope failure due to mass movement processes under the influence of gravity can occur without an earthquake. Some of the most common conditions leading to slope failure include the types of materials (unconsolidated, soft sediments or surficial deposits will move downslope more easily than consolidated, hard bedrock), structural properties of materials, steepness of slopes, water, vegetation type, and earthquake-generated ground shaking. Per the Blythe General Plan, slope failures are more likely to occur in areas adjacent to the Colorado River where bank erosion may occur, as well as the terraces of the Mesa, which slopes may vary from 3 percent to 30 percent.

b) The project site is located on relatively flat land, previously graded and utilized for agricultural fields. Therefore, impacts of seismically inducted rockfalls and landslides at the project site are not anticipated. No impacts, and no further analysis is required. **Potentially Significant Impact.** Erosion is influenced by several factors including climate, topography, soil types, and vegetation. Natural erosion processes are often accelerated through human activities such as agricultural or land development through grading and the reduction of surface area. Erosion is concern due to the negative affects it has on infrastructure and human health.

The project proposes the development of twelve buildings for the cultivation of cannabis. The project site is currently located on relatively flat land with vegetative growth associated with agricultural uses. Site development would include site preparation and grading activities such as clearing of all vegetation, over-excavation and re-compaction in order to ensure firm and uniform bearing conditions. The project area may be impacted by windborne, waterborne, and human generated erosion during project development. These impacts will be analyzed further in the Draft EIR.

c) **Potentially Significant Impact.** According to the Blythe General Plan, impacts associated with non-seismic geological hazards include ground subsidence, and slope failure along the banks of the Colorado River and along the Palo Verde Mesa. The project is not located in areas adjacent to the Colorado River and the Palo Verde Mesa. However, the project is located in an area designated as having a very high liquefaction potential and adjacent to the Palo Verde Irrigation District's (PVID) C Canal. Soils most susceptible to liquefaction are clean, loose, saturated, uniformly graded, and fine-grained sands. Soil collapse typically occurs in recently deposited soils in an arid or semi-arid environment. When saturated, collapsible soils undergo a rearrangement of their grains and a loss of cohesion or cementation, resulting in a substantial and rapid settlement even under relatively low loads.

The project site, as stated throughout this Initial Study, currently operates as agricultural land. The project proposes the development of new structures as well as the movement of existing onsite soils. Therefore, potential hazards such as lateral spreading, subsidence, liquefaction or soil collapse at the project site will be further analyzed in the Draft EIR.

d) **Potentially Significant Impact.** According to the Blythe Final Program EIR, expansive soils contain clay particles that increase and decrease in volume upon wetting and drying, respectively. Expansive soils are common throughout California and can cause damage to foundation and slabs, separating of masonry, or failure of paved surfaces unless properly treated during construction.

The existence of expansive soils on the project site will be discussed in greater detail in the Draft EIR.

e) **No Impact.** Currently, the project site is not connected to the City's wastewater collection system. The project proposes sewer infrastructure to serve the site consisting of gravity sewer lines, lift stations, and force mains which will connect to the City sewer infrastructure in Hobsonway. Septic tanks are not proposed at the project site. Therefore, there will be no impacts and further analysis is not required.

f) **Potentially Significant Impact.** According to the Riverside County General Plan, paleontological resources include evidence of past life forms and their biota, that is valued for the information they yield about the history of earth and its past ecological settings. Per Figure OS-8, Paleontological Sensitivity, in the Riverside County General Plan, the property is recognized for having low potential for Paleontological Sensitivity. Areas recognized for having "low" potential have a reduced likelihood of containing significant non-renewable paleontological resources, including vertebrate or significant invertebrate fossils.

The project site currently operates as an agricultural field and has operated as agricultural land since before 1948. As part of the proposed project, a project and site-specific cultural report and paleontological report will be conducted to determine the potential impacts to cultural and paleontological resources. Further analysis will be provided in the project Draft EIR.

References

Hart, E.W. and W.A. Bryant, *Fault Rupture Hazard Zones in California: Alquist-Priolo Special Studies Zones Act of 1972 with Index to Special Studies Zone Maps*. California Division of Mines and Geology, Special Publication 42, 1990. Revised and updated 1997.

Greenhouse Gas Emissions

8. **GREENHOUSE GAS EMISSIONS** -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☒	☐	☐	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact**. To address the long-term adverse impacts associated with global climate change, California's Global Warming Solutions Act of 2006 (AB 32) requires California Air Resource Board (CARB) to reduce statewide emissions of greenhouse gases (GHGs) to 1990 levels by 2020. In 2016, Governor Jerry Brown signed Senate Bill 32 (SB 32) that requires California to reduce GHG emissions to 40 percent below 1990 levels by 2030. With the passage of AB 32 in California, environmental documents for projects pursuant to CEQA are required to analyze greenhouse gases and assess the potential significance and impacts of GHG emissions.

The project is anticipated to contribute to greenhouse gas emissions. The Draft EIR will include a project-specific calculation of construction-related and operational GHG emissions to evaluate against the established GHG reduction strategies. The GHG emissions quantification will rely on the most current CalEEMod software. The finding of any impacts pertaining to project related GHG emissions will be supported by those results and discussed in the Draft EIR.

b) **Potentially Significant Impact**. The Draft EIR will evaluate the project's ability to comply with the established plans, policies, and regulations adopted for the purpose of reducing the emissions of greenhouse gases. As part of that assessment, the Draft EIR will review how the project complies with the Climate Change goals, policies, and programs established in the Open Space and Conservation Element of the City's General Plan. Although the City's General Plan does not directly address GHG emissions, the goals and policies established for air quality provide reduction strategies for City GHG emissions. Where necessary, project operations may be able to incorporate mitigation measures from the California Air Pollution Control Officers Association (CAPCOA). The extent to which GHG emissions are reduced will be documented and disclosed in the CalEEMod results,

which is the platform for quantifying construction-related and operational GHG emissions. The findings will be included and analyzed in the Draft EIR.

Hazards and Hazardous Materials

9. **HAZARDS AND HAZARDOUS MATERIALS** -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☒	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☒	☐	☐	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☒	☐	☐	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

Discussion

a, b) **Potentially Significant Impact**. The Code of Federal Regulations (CFR Title 40, Part 261) defines hazardous materials based on ignitability, reactivity, corrosivity, and/or toxicity properties. The State of California defines hazardous materials as substances that are toxic, ignitable or flammable, reactive and/or corrosive, which have the capacity of causing harm or a health hazard during normal exposure or an accidental release. As a result, the use and management of hazardous or potentially hazardous substances is regulated under existing federal, state, and local laws. Hazardous wastes require special handling and disposal methods to reduce their potential to damage public health and the environment. Manufacturer's specifications dictate the proper use, handling, and disposal methods for the specific substances. In most cases, it is a violation of Federal or State law to improperly store, apply, transport, or dispose of hazardous materials and waste.

The project property occupies approximately 34 acres of land south of Hobsonway and north of the Interstate 10 freeway. The project proposes to construct twelve buildings for cannabis cultivation and processing. Development will consist of one 46,132-square-foot building, two 46,848-square-foot buildings, and nine 43,776-square-foot buildings at total buildout, as well as landscaped areas and parking spaces. Offsite improvements include connecting the project's proposed sewer system to the City's existing sewer infrastructure along Hobsonway. The construction of the offsite improvements will be temporary and cease once construction is complete. Further analysis will be provided in the Draft EIR.

c) **No Impact**. There are no existing or proposed schools within one-quarter mile of the project. The closest school to the proposed project is Twin Palms High School, which is located approximately 0.59 miles northeast of the project. Therefore, the project would have no impact regarding hazardous materials exposure for schools and no further analysis is required.

d) **Potentially Significant Impact**. As previously discussed, the approximately 34-acre project site currently operates as agricultural land. The project site is located south of Hobsonway, west of Canal C and vacant land, north of Interstate 10, and east of agricultural land. The project proposes to develop twelve buildings for the cultivation and manufacturing of cannabis. Additional improvements include landscaped areas, retention basins, and parking spaces. Offsite improvements include connecting the project's proposed sewer system to the City's existing sewer infrastructure along Hobsonway.

Pursuant to Government Code Section 65962.5 and its subsections, record searches on the project property will be performed within multiple database platforms. Results of the record searches will determine whether the project area is included on a list of hazardous materials sites and will be analyzed in the project's Draft EIR.

e) **No Impact**. The project is not located near an existing airport or airport land use plan. The nearest airport facility to the project is Blythe Airport, located approximately 5.10 miles to the northwest. As a result, the project is located outside of the airport's influence and planning area. Flights approaching and departing the Blythe Airport may fly over the City and the project site with intermittent frequency; however, impacts are not anticipated.

Due to the project's distance from the airport, no impacts are anticipated, and further discussion is not required.

f) **Potentially Significant Impact**. Access to the project is proposed to occur on Hobsonway. Primary access to the site will be located at the northern boundary at the center. Emergency exits are proposed at the northeastern and northwestern corners of the project site. Access to the project will be gated. The project will be reviewed by the City

and Fire officials to ensure adequate fire service and safety as a result of project implementation.

Although the project is not anticipated to interfere with emergency response plans or evacuation plans, project impacts to emergency access and routes will be analyzed in the Draft EIR.

g) **Less than Significant Impact.** The Riverside County General Plan and the Cal Fire maps for the Eastern Riverside County area indicates that the project and its surroundings are located outside of the Very High Fire Hazard Severity Zone (FHSZ) for Local Responsibility Area and outside of the Very High/High/Moderate FHSZ for State and Federal Responsibility Areas. Additionally, the project site and surrounding vicinity is not in or adjacent to wildlands. As previously discussed, the project will include the on-site fire protection facilities necessary to satisfy the local Fire Department requirements. Impacts related to wildland fires are not anticipated to occur at the project site, therefore, further analysis is not required.

Hydrology and Water Quality

10. **HYDROLOGY AND WATER QUALITY** -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☒	☐	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☒	☐	☐	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner, which would result in substantial erosion or siltation on- or off-site?				
i) result in substantial erosion or siltation on- or off-site;	☒	☐	☐	☐
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site;	☒	☐	☐	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☒	☐	☐	☐
iv) impede or redirect flood flows?	☐	☐	☐	☒
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☐	☒
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☐	☒

Discussion

a) **Potentially Significant Impact.** The on-site project setting is physically determined by its previous operation as agricultural land with row crops and dirt access roads on the north, east, and west side of the property. Irrigation channels with operable irrigation gates are located either between the dirt access roads and the active agricultural fields or on the offsite side of the access roads. Adjacent to the eastern access road is C Canal operated by Palo Verde Irrigation District (PVID). The property accepts agricultural irrigation from C Canal and existing Drain Lines along the north and west boundaries. Irrigation water empties into the irrigation channels then the row crops via the irrigation gates. A chain link fence separates the property from the I-10 right-of-way (ROW.)

In its existing condition, onsite runoff would likely be directed to the surrounding irrigation channels via surface and sheet flow. Currently, the site may also accept stormwater runoff

(sheet flow) from the adjacent Interstate 10 freeway on the south, and Hobsonway on the north. Both roads have dirt shoulders sloping toward the project site. Along Hobsonway, one curb opening is installed to convey street runoff toward the property.

The cultivation facilities proposed within the project site will occur in the context of localized and regional improvements that presently account for on- and off-site stormwater controls and flood protection. The Draft EIR will further analyze how the existing drainage infrastructure serves the project site, and how the proposed facilities will be incorporated to be consistent with this setting. The Draft EIR will also discuss how the project will achieve compliance with Federal, state and local regulations designed to prevent impacts to water quality standards and the beneficial uses assigned to local receiving waters, during construction and operation. The supported findings resulting from further assessment, along with any mitigation deemed necessary, will be provided in the Draft EIR.

b) **Potentially Significant Impact.** The project site is underlain by the Palo Verde Valley Groundwater Basin, which is known to have generalized groundwater depths ranging from 2.9 to 22 feet below ground surface. Although the proposed development is not expected to interfere with existing or planned recharge facilities, the Draft EIR will assess, in greater detail, the project's scale of water consumption in relation to the regional groundwater resources, including the pertinent conservation and recharge strategies. The findings resulting from further study, along with any mitigation deemed necessary, will be provided in the Draft EIR.

c i-iii) **Potentially Significant Impact**. The facilities associated with the proposed cultivation project will occur within a property previously and currently utilized as agricultural land. Currently, onsite drainage controls and flood protection is provided by the engineered earthen channels and canal west, north, and east of the project (operated by PVID). The proposed cultivation facility will be required to address all City requirements and conditions associated with the existing stormwater facilities, such that their construction and operation do not result in any substantial increases in erosion, siltation, or flooding either on- or off-site. The further study and supporting findings of this topic, as well as any mitigation deemed necessary, will be included in the Draft EIR.

c vi) **No Impact**. The Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRMs) serve as the basis for identifying potential hazards and determining the need for and availability of federal flood insurance. Based on FEMA FIRM Panel Number 06065C3230G, effective August 28, 2008, the proposed project will occur in areas covered by the Zone D designation, which is also identified as areas with a potentially moderate to high risk of flooding, but the probability has not been determined. None of the proposed facilities will occur within any special flood hazard area, which are known to have higher flood risk. As presently mapped, special flood hazard areas do not occur

near the project site. The proposed project will be required to address all City requirements and conditions associated with the existing stormwater facilities, such that their construction and operation do not impede or result in the redirection of flood flows. No further analysis is required.

d) **No Impact**. Being located in Zone D, as designated in FEMA FIRM Panel No. 06065C3230G, the project would not introduce structures or facilities to a Special Flood Hazard Area (SFHA), where the risk of inundation is considered to be higher. The proposed storm drain system will meet the City requirements by including the properly sized conveyance systems and meeting the design criteria of existing retention facilities, such that meets the local hydrologic requirements.

Flood Hazard: As previously determined, the project is located in Zone D, designated by FEMA, which is identified as other areas of undetermined flood hazard. The project site is not located in an area designated as SFHA, where the risk of inundation is considered to be higher. Therefore, the project will not introduce structures or facilities to an SFHA designated area. The proposed storm drain system will meet the City requirements by including the properly sized conveyance systems and meeting the design criteria of existing retention facilities, such that it meets the local hydrologic requirements. No further study of this topic is required.

Risk Release of Pollutants: The proposed cultivation facilities and commercial operations are not expected to involve the storage and handling of substantial amounts of chemicals, like petroleum products and other hazardous materials, such that the pollutant release would occur in the event of inundation. Several sections of the California Health and Safety Code deal with hazardous waste and hazardous materials. Under Chapter 6.95, Article 1, areas and businesses that have a threshold amount of hazardous materials on site (55 gallons of liquid; 500 pounds of solid for businesses) must have plans in place for emergency response to an accidental release of materials. These Hazardous Materials Business Plans (HMBPs) and Hazardous Materials Area Plans (HMAPs) must include a list of chemical and common names of the hazardous substance handled by the business; the category of waste; the maximum amount of each hazardous material or mixture containing a hazardous material that is present onsite; information on how and where the hazardous materials are handled by the business for fire, safety, health and other appropriate personnel to prepare adequate emergency responses to potential releases of the hazardous materials; emergency response plans and procedures in the event of a reportable release or threatened release of a hazardous material; and training for new employees and annual training (refresher courses). Under Chapter 6.95, Article 2, operators of stationary sources of hazardous materials are required (if they are deemed an accident risk) to prepare risk management plans (RMPs), detailing strategies to reduce the risk of accidental hazardous material release and submit

them to the California Emergency Management Agency. Cannabis cultivators that stored hazardous materials (e.g., pesticides, fuels) exceeding the threshold quantity would be required to prepare an HMBP. In most cases, the local Certified Uniform Program Agency (CUPA) is the administering agency responsible for implementing the HMBP program. Data generated for HMBP compliance is managed through the statewide California Environmental Reporting System (CERS).

Additionally, the California Fire Code (29 CCR Part 9) requires businesses that handle more than a threshold quantity of hazardous materials to prepare a Hazardous Materials Management Plan (HMMP) and a Hazardous Materials Inventory Statement (HMIS). The HMMPs are similar to HMBPs and must include a facility site plan containing information (i.e., location of emergency equipment, hazardous material storage, emergency exits). Commercial cannabis cultivation facilities that store or handle greater than threshold quantities of hazardous materials would be required to prepare a HMMP and HMIS.

Project compliance with existing laws and regulations related to use and storage of pollutants would avoid release of pollutants. Licensed cannabis businesses are required to store chemicals in a secure building or shed, and to contain any chemical leaks and immediately clean up any spills. The project would be required to identify designated pesticides and other agricultural chemical storage areas as part of their cultivation plans. However, as an objective of the site, the project will cultivate and manufacture pesticide-free cannabis products. Therefore, pesticides will not be stored onsite. The project's adherence to state and local regulations regarding product use and storage will ensure that the project would not result in the release of pollutants. No further study is required.

Tsunami: The project is not located near any coastal areas and therefore is not prone to tsunami hazards. No impacts and no further study regarding tsunamis are needed.

Seiche Zone: The project is not located in any mapped seiche zone, such as those associated with large bodies of water. Therefore, no impacts and no further study regarding seiche zones are needed.

Overall, the above specified topics are not subject to further study as part of the Draft EIR. No impact.

e) **No Impact**. The project proponent is required to implement the required compliance plans appropriate for the scale and nature of the proposed facilities in order to be consistent with the City of Blythe's 2020 Urban Water Management Plan. Therefore, the project will not conflict or obstruct implementation of water quality control or sustainable groundwater management, both of which are analyzed in the City's Urban Water Management Plan.

Land Use and Land Use Planning

11. **LAND USE AND PLANNING** - Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

Discussion

a) **No Impact.** The project would not physically divide an established community. The project and the surrounding properties operate independently from one another; therefore, the project would have no related land use impact. No further analysis is required.

b) **No Impact.** The project site is designated Commercial General (C-G) in the City of Blythe General Plan 2025 and zoning map. The C-G land use and zoning allows for cannabis operations at the project site. Therefore, an amendment to the General Plan or a zone change will not be required as a part of the project. The project would not conflict with any land use plan, policy or regulation adopted for the purpose of avoiding or mitigating an environmental effect. Therefore, no further analysis is required.

References

City of Blythe, *General Plan 2025*, Land Use Element, March 2007.

Mineral Resources

12. MINERAL RESOURCES -- Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

Discussion

a-b) **No Impact.** The California Department of Conservation Mines Online tool does not identify any documented mines on the project site. Additionally, the Riverside County General Plan EIR classifies the City of Blythe to be within Mineral Resource Zone 4 (MRZ-4), in which the presence and significance of mineral deposits are undetermined. However, the City of Blythe General Plan EIR states that although several areas along Midland Road were historically mined for gypsum and gravel, there are no active mines within the City and surrounding area. Midland Road is located approximately 5.30 miles north of the project property. The majority of the closest mining operations are located north, outside of the City. There are no mineral deposit sites within the vicinity of the project and there are no known mineral resources of value on the project site. The project site does not contain a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan. Therefore, the project would have no impact on mineral resources and no further analysis is required.

References

Department of Conservation, Division of Mine Reclamation, *Mines Online*. http://maps.conservation.ca.gov/mol/index.html

Noise

13. NOISE -- Would the project result in:	Potentially Significant Impact	Less Than Significant Impact with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☒	☐	☐	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

Discussion

a) **Potentially Significant Impact.** The project site currently operates as agricultural land. The project proposes the development of twelve buildings for the cultivation of cannabis, as well as associated improvements such as gated entry points, landscaping throughout, retention basins, and paved parking spaces. Construction and operation of the proposed project could lead to some incremental increase in noise levels in the project vicinity.

A project-specific noise study will be completed for the project. The noise study will analyze project-related noise impacts, which will be further discussed in the project's Draft EIR.

b) **Potentially Significant Impact.** The project site is surrounded by agricultural land, similar to that found on the project site to the north, east, south and west. The project boundaries are specifically met by Hobsonway to the north, a canal to the east, Interstate 10 freeway to the south, and agricultural land to the west. The existing source of groundborne vibration is attributed to the circulation of vehicles and trucks along surrounding roadways. Due to the agricultural uses and roadways in the surrounding area, it can be assumed that groundborne vibration is experienced at the project site.

It is likely that development of the proposed project may lead to temporary increases of groundborne vibration during construction of the project. A project-specific noise study will be completed for the Edelweiss Sustainable Farms Draft EIR, and will address groundborne vibration.

c) **No Impact**. The project site is not within two miles of a public airport. The project site is located approximately 5.10 miles southeast of Blythe Airport. Therefore, the project site is not located within two miles of a public airport or the vicinity of a private airstrip. The project would not expose people residing or working in the area to excessive airport noise levels. Therefore, the project would have a no impact and no additional analysis is required.

References

City of Blythe, *General Plan 2025*, Chapter 8: Noise Element. March 2007.

Population and Housing

14. **POPULATION AND HOUSING** – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☒	☐
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Discussion

a) **Less than Significant Impact.** The project site is zoned commercial and designated as General Commercial (C-G) in the City of Blythe General Plan 2025. The project proposes the development of twelve buildings for the cultivation of cannabis. Associated improvements, such as landscaping, paved drive aisle, and parking spaces are also proposed as part of the project.

The adopted Southern California Association of Governments (SCAG) 2017 Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) growth forecasts for City of Blythe identifies projected growth in population from 20,000 in 2012 to 24,000 in 2040, or a 23 percent increase over the 28-year period. The change in population equates to roughly a 0.74 percent growth rate, compounded annually. Similarly, growth over the same 28-year period in households is project to increase by 38 percent, or by 1.15 percent annual growth rate. The project will result in additional jobs and employment in the City during construction and operation of the site. The project may encourage relocation for employment; however, considering the facility's size and purpose and the comparison with other general commercial uses in the area, relocation of employees generated by construction and operation of the proposed facilities would not be anticipated to be substantial. The project does not have a residential component and improvements to roads and other infrastructure associated with the cultivation and processing facility would not be expected to induce substantial growth to the area.

SCAG projected growth in employment from 4,800 jobs in 2016 to 6,300 jobs by 2045. Employment generated by the project will include approximately 534 employees, based on 1 employee per 1,000 square feet. In 2019, Blythe had approximately 5,200 employees in the City. The addition of approximately 534 jobs would result in 5,734 employees. This

growth is accounted for in the SCAG growth forecasts and therefore, the project would not result in unplanned growth.

The proposed project lies adjacent to the existing paved roadways, Hobsonway (north) and Interstate 10 (south). Extensions of these roadways are not proposed as part of project implementation. Access to the site will occur on Hobsonway, at the northern property boundary.

The project will be required to connect to offsite electrical power. Existing overhead distribution power poles are located north of the project, on the north side of Hobsonway, and along the western project boundary. The project will coordinate with Southern California Edison (SCE), the local electricity provider, to connect to the existing facilities. Development of new electrical infrastructure will not be required as part of the project.

Water lines currently occur along Hobsonway. The project will connect to the existing City of Blythe domestic water line and no additional extensions of infrastructure will be required. The project proposes sewer infrastructure consisting of gravity sewer lines, lift stations, and a force main. The project will connect to the City's sewer system. Extensions of the City of Blythe's sewer infrastructure is required to support growth in the City, and the City has accounted for this growth in its General Plan.

Less than significant impacts to population and housing are expected and no further analysis is required.

b) **No Impact**. The project site currently operates as an agricultural field; therefore, the property does not provide housing. The project property is located within the General Commercial land use designation established by the City of Blythe. Therefore, it can be concluded that the proposed project would not displace any existing housing units or people, necessitating the construction of replacement housing elsewhere. No impact is anticipated, and no further analysis is required.

References

City of Blythe, *General Plan 2025 Final Program EIR*, January 2007.

City of Blythe, *General Plan 2025*, Chapter 8: Noise Element. March 2007.

Public Services

15. **PUBLIC SERVICES** –	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire protection?	☒	☐	☐	☐
Police protection?	☒	☐	☐	☐
Schools?	☐	☐	☒	☐
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

Discussion

a) ***Fire Protection***

Potentially Significant Impact. The Blythe Fire Department provides fire protection services to the project site. The station is at 201 North Commercial Street, located approximately 0.80 miles northeast of the project site. The Riverside County Fire Department (RCFD), under contract with the City of Blythe, provides fire protection to the City. According to the RCFD website, additional fire stations in Blythe include Blythe Station (Battalion 8) at 140 West Barnard Street, Blythe Air Base (Battalion 8) at 17280 West Hobsonway, and River Bend Station (Battalion 8) at HC 20 Box 2411. The project will comply with applicable building and electrical codes. The Draft EIR will analyze the project's impact on fire protection services and facilities. The Draft EIR will also provide mitigation, if necessary, to address the potential impacts.

Police Protection

Potentially Significant Impact. The Blythe Police Department provides law enforcement to the project site. The station is located at 240 North Spring Street, approximately one mile northeast of the project site. Security requirements for individually licensed operations include 24-hour on-site security, security cameras on the perimeter walls, entrances, and within each operation, and transport of products and money in licensed armored transport vehicles. The project would be a gated and secured site, with a guarded

entry and exit from the site for all vehicles and personnel. The Draft EIR will discuss the project design features related to security and project safety, as well as analyze the project's impact on police protection services and facilities. The Draft EIR will also provide mitigation, if necessary, to address the potential project impacts.

Schools

Less than Significant Impact. The project site is located within Palo Verde Unified School District. The project site is not located near any school, negating the potential for conflicts with school operations. The closest school to the project site is Twin Palms High School, located at 811 West Chanslor Way, approximately 0.65 miles northeast of the property. As such, no school would be relocated as a result of project development. The project would not result in substantial population growth, and as such would be unlikely to increase demand for schools in any particular location to the extent that it would necessitate new or altered school facilities. Additionally, the proposed project will be required to pay statutory development impact fees to Palo Verde Unified School District in accordance with state law. Therefore, the project would have a less than significant impact on area schools.

Parks

No Impact. As discussed in the Recreation Section of the document, the proposed project would not create significant additional demand for public park facilities, nor result in the need to modify existing or construct new park facilities. The closest park to the project site is Gateway Park, located approximately 0.50 miles to the east. The project is not anticipated to result in substantial population growth such that the demand for parks or other public facilities would necessitate new or altered recreational facilities. The project will be required to pay the City a fee for developing the commercial property as determined by Chapter 3.34, *Development Impact Fee*, of the Blythe Municipal Code, which includes a fee to fund additional recreational facilities in the City to meet future needs. Therefore, the project would have no impact on recreational facilities and no further analysis is needed.

Other Public Facilities

No Impact. No increase in demand for government services or other public facilities is expected beyond those discussed in this section. No impacts are anticipated, and no further analysis is needed.

References

City of Blythe, *General Plan 2025*, March 2007.

Recreation

16. **RECREATION** –	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	☐	☐	☐	☒

Discussion

a-b) **No Impact.** The nearest park to the project site is Gateway Park, located approximately 0.50 miles to the east. Properties north, west, and south of the project operate as agricultural fields with one single family residential dwelling on the property to the west and one single family residential dwelling to the south on the opposite side of Interstate 10. Commercial uses and vacant lots are located east of the project site. The project proposes the development of a facility with twelve buildings for the cultivation of cannabis. No residential land uses are proposed and the approximate number of proposed employees working various shifts would not cause a substantial increase to the current existing neighborhood community, regional or local parks. The project would not include recreational facilities, nor require the construction or expansion of recreational facilities, nor affect use of existing recreational facilities. The project will be required to pay the City a fee for developing the commercial property as determined by Chapter 3.34, *Development Impact Fee*, of the Blythe Municipal Code. The fee will provide necessary funds to public services, including police and fire protection, public utilities, water drainage, treatment and disposal of sanitary sewage, parks, and leisure-oriented facilities. Therefore, the project would have no impact on recreational facilities.

References

City of Blythe, *General Plan 2025*, March 2007.

Transportation

17. **TRANSPORTATION** – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	☒	☐	☐	☐
b) Would the project conflict or be inconsistent with CEQA guidelines section 15064.3, subdivision (b)?	☒	☐	☐	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
d) Result in inadequate emergency access?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact.** The project would generate traffic during both construction and operation of the site. The traffic generated by the proposed cultivation facility would generate traffic that could affect the performance of the circulation system of the area.

The City of Blythe has adopted policies, ordinances and plans which address the performance of the circulation system. The County of Riverside has adopted a Congestion Management Program that includes performance standards for major transportation corridors in the County.

A detailed Traffic Impact Analysis (TIA) will be prepared for the proposed project. The TIA will evaluate the impacts of the proposed project on the circulation system surrounding the retreat. The TIA and the Draft EIR will discuss the analysis of this topic, including project impacts and any mitigation, if required.

b) **Potentially Significant Impact.** The project would generate traffic during operation of the site that could increase the Vehicle Miles Travelled (VMT) in the area. The State of California and the County of Riverside have adopted policies, ordinances and plans which address the reduction of VMT in the State and the vicinity.

A detailed TIA will be prepared for the project, as well as a VMT evaluation of the project site. The VMT evaluation will analyze the impacts of the proposed project on area VMT. The Draft EIR will discuss the analysis of this topic and incorporate the results of the VMT evaluation, including project impacts and any mitigation, if required.

c, d) **Potentially Significant Impact.** As previously stated, the project would generate traffic during operation that could increase design and circulation related hazards onsite and in the vicinity. The City of Blythe, County Fire and County Sheriff's Department have adopted policies, ordinances, and plans which address the reduction of design hazards and impacts to hazard response.

The project-specific TIA will evaluate the potential impacts of the proposed project design on the surrounding area and on emergency services. The Draft EIR will analyze this topic and will incorporate the results of the TIA, including project impacts and any mitigation, if required.

Tribal Cultural Resources

18. TRIBAL CULTURAL RESOURCES – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Would the project cause a substantial Adverse change in the significance of a Tribal cultural resource, defined in Public Resource Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i)Listed or eligible for listing in the California Register of Historical Resources, or in a local Register of historical resources as defined in Public Resource Code Section 5020.1(k), or;	☒	☐	☐	☐
ii)A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	☒	☐	☐	☐

Discussion

a i-ii) **Potentially Significant Impact.** As previously discussed in the Cultural discussion of this document, the project site operates as agricultural land, which has been graded, tilled, and harvested for decades. Although it is unlikely that Tribal cultural resources would be present at the site due to the project's current and previous agricultural use, the City will conduct Tribal consultation with area Tribal representatives, and a project-specific cultural resources report will be prepared by a qualified archaeologist to determine the likelihood for the presence or absence of tribal cultural resources. The results of the Tribal consultation cultural resources report will be presented in the Draft EIR.

Utilities and Service Systems

19. **UTILITIES AND SERVICE SYSTEMS** – Would the project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☒	☐	☐	☐
b) Have sufficient water supplies available to serve the project and reasonable foreseeable future development during normal, dry and multiple dry years?	☒	☐	☐	☐
c) Result in a determination by wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☒	☐	☐	☐
d) Generate solid waste in excess of State or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☒	☐	☐	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☒	☐	☐	☐

Discussion

a) **Potentially Significant Impact.** The project site is currently characterized as an agricultural field. Existing irrigation channels lie along the property's northern and western boundaries, and C Canal is located along the property's eastern boundary. The project site is not currently served with wastewater facilities, domestic water, electric, natural gas, or telecommunication facilities due to its operation as agricultural land.

Water: The City of Blythe provides domestic water service. The project will be required to connect to the City's water line along Hobsonway for its irrigation and potable water supplies. The Draft EIR will analyze and discuss water supply and infrastructure required for the operation of the project.

Sewer: The City of Blythe also provides wastewater collection and treatment service throughout the City. The project proposes sewer infrastructure consisting of gravity sewer lines, force main, and lift stations. The project will connect to the City of Blythe's existing sewer system in Hobsonway. The Draft EIR will analyze and discuss in greater detail

project-generated wastewater and infrastructure required for the operation of the project, including all off-site improvements required to service the property.

Stormwater: The existing earthen irrigation channels west, north, and east of the project currently also convey onsite and offsite storm water runoff that is not directly infiltrated on the property. The cultivation facilities proposed within the project site will occur in the context of localized and regional improvements that presently account for on- and off-site stormwater controls and flood protection. The Draft EIR will further analyze how the existing drainage occurs on the project site, and how the proposed facilities will be incorporated to be consistent with this setting. The supported findings resulting from further assessment, along with any mitigation deemed necessary, will be provided in the Draft EIR.

Electric: The project is not currently served by electric facilities. The project will be required to connect to existing infrastructure provided by Southern California Edison (SCE). Above-ground distribution electricity lines are located north of the project (north of Hobsonway). A short power line that serves the adjacent property owner currently encroaches onto the western portion of the project site. The Draft EIR will discuss project-related electricity consumption, as well as analyze the project's potential impact to electric demand and infrastructure.

Natural Gas: The project is not currently served by natural gas facilities. Southern California Gas Company provides natural gas to the City of Blythe. The project will be required to connect to existing natural gas infrastructure located in the northern right-of-way of Hobsonway. The Draft EIR will discuss project-related natural gas consumption, as well as the potential impacts to natural gas demand and infrastructure.

Telecommunication: The project is not currently served by telecommunication facilities. Telecommunication and Fiber Optic lines are located in or adjacent to Hobsonway. The Draft EIR will discuss and analyze the potential project impacts to telecommunication infrastructure.

b) **Potentially Significant Impact.** The project proposes to connect to the existing water infrastructure located along Hobsonway. The City of Blythe provides domestic water to the residents and businesses in the area, while the Palo Verde Irrigation District (PVID) provides irrigation water for agricultural uses in the City and surrounding area. The proposed project is expected to increase the demand to the property's existing water use. Therefore, the Draft EIR will analyze the impacts and demand against the available water supplies in the City and PVID service area.

c) **Potentially Significant Impact**. The City of Blythe will provide wastewater services to the site. The project proposes sewer infrastructure consisting of gravity sewer lines, force main, and lift stations. The project will connect to the City of Blythe's existing sewer system in

Hobsonway. The Draft EIR will analyze the project's wastewater demand against the capacity of the City's existing wastewater infrastructure.

d) **Potentially Significant Impact.** The City of Blythe has a contract with CR&R, Inc. for trash and recycling services. CR&R would serve the project for waste collection. Solid waste in Blythe is sent to the Riverside County Waste Management Blythe Landfill. The project would comply with all federal, state, and local statutes and regulations related to solid waste. The Draft EIR will analyze the capacity of these the existing landfill and the potential solid waste generated by the project.

e) **Potentially Significant Impact.** The project will comply with all applicable solid waste statutes and guidelines. All development is required to comply with the mandatory commercial recycling requirements of Assembly Bill 341. The project will also comply with the recycling requirements of Cal Green and develop a waste management plan that will include diverting at least 50 percent of construction material fill from landfills. The project will generate plant residuals and electronic waste from equipment (i.e., light bulbs) during operation of the proposed site. The Draft EIR will analyze the potential impacts of the generated waste as well as discuss the project's compliance with federal, state, and local management and reduction statutes and regulations related to project-generated solid waste.

References

City of Blythe, *General Plan 2025 Final Program EIR*, January 2007.

Wildfire

20. **WILDFIRE –** If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☐	☒
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water resources, power lines or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	☒
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff post-fire slope instability, or drainage changes?	☐	☐	☐	☒

Discussion

a-d) **No Impact**. The approximately 34-acre project site is characterized by active agricultural uses consisting of cultivated row crops in the City of Blythe. Situated south of Hobsonway and north of the Interstate 10 freeway, the site is surrounded primarily by agricultural land to the north, west, and south. Urban and developed areas of Blythe are located east of the project property. The project site and properties east and west of the site are located within the City's General Commercial land use designations, while the properties north and south of the project are unincorporated areas of Riverside County. Existing General Commercial facilities are located approximately 100 feet northeast of the project boundaries and 550 feet west of the project site.

According to CAL Fire's Fire Hazard Severity Zones (FHSZ) in State Responsibility Areas (SRA) Map, the project is not located in an SRA or located in an area classified as very high fire hazard severity zone (VHFHSZ). Additionally, the project property is not located in or near lands classified as high or moderate fire hazard severity zones. There are no areas within the City of Blythe that are designated FHSZ in SRA. Due to the project's distance from SRAs and areas designated as VHFHSZs, no impacts are anticipated, and no further analysis is required.

Wildfire risk is related to a number of parameters, including fuel loading (vegetation), fire weather (winds, temperature, humidity levels, and fuel moisture contents) and topography (degree of slope). Steep slopes contribute to fire hazards by intensifying the effects of wind

and make fire suppression difficult. Fuels such as grass are highly flammable because they have a high surface area to mass ratio and require less heat to reach the ignition point. The project site is not located near slopes. Additionally, the project site and the surrounding uses to the north, west, and south are defined by agricultural crops, which are watered and harvested seasonally. The project is not located in or near an SRA, or in an area classified as a VHFHSZ. Therefore, the project site is not expected to expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of wildfire. Moreover, the project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires because a majority of the City of Blythe does not provide conditions, such as dense vegetation and steep slopes, conducive for the spread of wildfires.

The project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan because it will provide emergency fire access to the project site and will not alter the City's existing street system. Emergency access would be compliant with the standards of the Fire Department to ensure proper vehicular access for emergency vehicles to the site. As a result, the project is not expected to require the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment. Furthermore, wildfires are not expected to occur at the project site due to the lack of fuel and slopes on and surrounding the project. Therefore, the project would not expose people or structures to significant risks, including downslope, or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes as a result of a wildfire. No impact is expected to result from the project, and no further analysis is required.

References

City of Blythe, *General Plan 2025 Final Program EIR*, January 2007.

CAL Fire, California's Fire Hazard Severity Zones Map, accesses July 2021, https://egis.fire.ca.gov/FHSZ/

Mandatory Findings of Significance

21. **MANDATORY FINDINGS OF SIGNIFICANCE**	Potentially Significant Impact	Less Than Significant with Mitigation Incorporation	Less Than Significant Impact	No Impact
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☒	☐	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☒	☐	☐	☐
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

Discussion

a) **Potentially Significant Impact.** The project site currently operates as agricultural land located south of Hobsonway and north of Interstate 10 freeway. Agricultural uses are located north, west, and east of the site, whereas a more urban context of the City is situated east of the site. The project has served as agricultural land for past decades. Therefore, the project has undergone grading, tilling, harvesting, and other operations relating to agricultural practices. Although these activities make the project property an unlikely site to house sensitive wildlife and plant species and cultural (i.e., historical and archaeological) resources, a project-specific biological resources study and cultural resources report will be conducted for the project. The project-specific biological resources study will determine whether sensitive plant and wildlife species occur onsite, while the cultural resources report will determine the presence or absence of historical or prehistorical resources on the project site. The findings of these reports and the project's potential impact to biological and cultural resources will be analyzed in greater detail in the Draft EIR. The Draft EIR will also discuss mitigation, if required.

b) **Potentially Significant Impact**. The construction and operation of the proposed project has the potential to result in cumulative impacts related particularly to air quality, energy demand, demands on police and fire services, and traffic. Therefore, the Draft EIR will

analyze cumulative impacts of project development in relation to other foreseeable projects with similar impacts.

c) **Less than Significant.** The proposed project will not result in impacts related to environmental effects that will cause substantial adverse effects on human beings. The project is compatible with existing and surrounding uses and will comply with established design guidelines and current building standards. Impacts would be less than significant. No further study is required.

NATIVE AMERICAN HERITAGE COMMISSION

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December 7, 2021

Mallory Crecelius
City of Blythe
235 N Broadway
Blythe, CA 92225

Re: 2021120031, Edelweiss Sustainable Farms Commercial Cannabis Project, Riverside County

Dear Ms. Crecelius:

The Native American Heritage Commission (NAHC) has received the Notice of Preparation (NOP), Draft Environmental Impact Report (DEIR) or Early Consultation for the project referenced above. The California Environmental Quality Act (CEQA) (Pub. Resources Code §21000 et seq.), specifically Public Resources Code §21084.1, states that a project that may cause a substantial adverse change in the significance of a historical resource, is a project that may have a significant effect on the environment. (Pub. Resources Code § 21084.1; Cal. Code Regs., tit.14, §15064.5 (b) (CEQA Guidelines §15064.5 (b)). If there is substantial evidence, in light of the whole record before a lead agency, that a project may have a significant effect on the environment, an Environmental Impact Report (EIR) shall be prepared. (Pub. Resources Code §21080 (d); Cal. Code Regs., tit. 14, § 5064 subd.(a)(1) (CEQA Guidelines §15064 (a)(1)). In order to determine whether a project will cause a substantial adverse change in the significance of a historical resource, a lead agency will need to determine whether there are historical resources within the area of potential effect (APE).

CEQA was amended significantly in 2014. Assembly Bill 52 (Gatto, Chapter 532, Statutes of 2014) (AB 52) amended CEQA to create a separate category of cultural resources, "tribal cultural resources" (Pub. Resources Code §21074) and provides that a project with an effect that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. (Pub. Resources Code §21084.2). Public agencies shall, when feasible, avoid damaging effects to any tribal cultural resource. (Pub. Resources Code §21084.3 (a)). **AB 52 applies to any project for which a notice of preparation, a notice of negative declaration, or a mitigated negative declaration is filed on or after July 1, 2015.** If your project involves the adoption of or amendment to a general plan or a specific plan, or the designation or proposed designation of open space, on or after March 1, 2005, it may also be subject to Senate Bill 18 (Burton, Chapter 905, Statutes of 2004) (SB 18). **Both SB 18 and AB 52 have tribal consultation requirements.** If your project is also subject to the federal National Environmental Policy Act (42 U.S.C. § 4321 et seq.) (NEPA), the tribal consultation requirements of Section 106 of the National Historic Preservation Act of 1966 (154 U.S.C. 300101, 36 C.F.R. §800 et seq.) may also apply.

The NAHC recommends consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of your proposed project as early as possible in order to avoid inadvertent discoveries of Native American human remains and best protect tribal cultural resources. Below is a brief summary of portions of AB 52 and SB 18 as well as the NAHC's recommendations for conducting cultural resources assessments.

Consult your legal counsel about compliance with AB 52 and SB 18 as well as compliance with any other applicable laws.

AB 52

AB 52 has added to CEQA the additional requirements listed below, along with many other requirements:

1. Fourteen Day Period to Provide Notice of Completion of an Application/Decision to Undertake a Project: Within fourteen (14) days of determining that an application for a project is complete or of a decision by a public agency to undertake a project, a lead agency shall provide formal notification to a designated contact of, or tribal representative of, traditionally and culturally affiliated California Native American tribes that have requested notice, to be accomplished by at least one written notice that includes:

- **a.** A brief description of the project.
- **b.** The lead agency contact information.
- **c.** Notification that the California Native American tribe has 30 days to request consultation. (Pub. Resources Code §21080.3.1 (d)).
- **d.** A "California Native American tribe" is defined as a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of Statutes of 2004 (SB 18). (Pub. Resources Code §21073).

2. Begin Consultation Within 30 Days of Receiving a Tribe's Request for Consultation and Before Releasing a Negative Declaration, Mitigated Negative Declaration, or Environmental Impact Report: A lead agency shall begin the consultation process within 30 days of receiving a request for consultation from a California Native American tribe that is traditionally and culturally affiliated with the geographic area of the proposed project. (Pub. Resources Code §21080.3.1, subds. (d) and (e)) and prior to the release of a negative declaration, mitigated negative declaration or Environmental Impact Report. (Pub. Resources Code §21080.3.1(b)).

- **a.** For purposes of AB 52, "consultation shall have the same meaning as provided in Gov. Code §65352.4 (SB 18). (Pub. Resources Code §21080.3.1 (b)).

3. Mandatory Topics of Consultation If Requested by a Tribe: The following topics of consultation, if a tribe requests to discuss them, are mandatory topics of consultation:

- **a.** Alternatives to the project.
- **b.** Recommended mitigation measures.
- **c.** Significant effects. (Pub. Resources Code §21080.3.2 (a)).

4. Discretionary Topics of Consultation: The following topics are discretionary topics of consultation:

- **a.** Type of environmental review necessary.
- **b.** Significance of the tribal cultural resources.
- **c.** Significance of the project's impacts on tribal cultural resources.
- **d.** If necessary, project alternatives or appropriate measures for preservation or mitigation that the tribe may recommend to the lead agency. (Pub. Resources Code §21080.3.2 (a)).

5. Confidentiality of Information Submitted by a Tribe During the Environmental Review Process: With some exceptions, any information, including but not limited to, the location, description, and use of tribal cultural resources submitted by a California Native American tribe during the environmental review process shall not be included in the environmental document or otherwise disclosed by the lead agency or any other public agency to the public, consistent with Government Code §6254 (r) and §6254.10. Any information submitted by a California Native American tribe during the consultation or environmental review process shall be published in a confidential appendix to the environmental document unless the tribe that provided the information consents, in writing, to the disclosure of some or all of the information to the public. (Pub. Resources Code §21082.3 (c)(1)).

6. Discussion of Impacts to Tribal Cultural Resources in the Environmental Document: If a project may have a significant impact on a tribal cultural resource, the lead agency's environmental document shall discuss both of the following:

- **a.** Whether the proposed project has a significant impact on an identified tribal cultural resource.
- **b.** Whether feasible alternatives or mitigation measures, including those measures that may be agreed to pursuant to Public Resources Code §21082.3, subdivision (a), avoid or substantially lessen the impact on the identified tribal cultural resource. (Pub. Resources Code §21082.3 (b)).

7. Conclusion of Consultation: Consultation with a tribe shall be considered concluded when either of the following occurs:

a. The parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource; or

b. A party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached. (Pub. Resources Code §21080.3.2 (b)).

8. Recommending Mitigation Measures Agreed Upon in Consultation in the Environmental Document: Any mitigation measures agreed upon in the consultation conducted pursuant to Public Resources Code §21080.3.2 shall be recommended for inclusion in the environmental document and in an adopted mitigation monitoring and reporting program, if determined to avoid or lessen the impact pursuant to Public Resources Code §21082.3, subdivision (b), paragraph 2, and shall be fully enforceable. (Pub. Resources Code §21082.3 (a)).

9. Required Consideration of Feasible Mitigation: If mitigation measures recommended by the staff of the lead agency as a result of the consultation process are not included in the environmental document or if there are no agreed upon mitigation measures at the conclusion of consultation, or if consultation does not occur, and if substantial evidence demonstrates that a project will cause a significant effect to a tribal cultural resource, the lead agency shall consider feasible mitigation pursuant to Public Resources Code §21084.3 (b). (Pub. Resources Code §21082.3 (e)).

10. Examples of Mitigation Measures That, If Feasible, May Be Considered to Avoid or Minimize Significant Adverse Impacts to Tribal Cultural Resources:

a. Avoidance and preservation of the resources in place, including, but not limited to:

i. Planning and construction to avoid the resources and protect the cultural and natural context.

ii. Planning greenspace, parks, or other open space, to incorporate the resources with culturally appropriate protection and management criteria.

b. Treating the resource with culturally appropriate dignity, taking into account the tribal cultural values and meaning of the resource, including, but not limited to, the following:

i. Protecting the cultural character and integrity of the resource.

ii. Protecting the traditional use of the resource.

iii. Protecting the confidentiality of the resource.

c. Permanent conservation easements or other interests in real property, with culturally appropriate management criteria for the purposes of preserving or utilizing the resources or places.

d. Protecting the resource. (Pub. Resource Code §21084.3 (b)).

e. Please note that a federally recognized California Native American tribe or a non-federally recognized California Native American tribe that is on the contact list maintained by the NAHC to protect a California prehistoric, archaeological, cultural, spiritual, or ceremonial place may acquire and hold conservation easements if the conservation easement is voluntarily conveyed. (Civ. Code §815.3 (c)).

f. Please note that it is the policy of the state that Native American remains and associated grave artifacts shall be repatriated. (Pub. Resources Code §5097.991).

11. Prerequisites for Certifying an Environmental Impact Report or Adopting a Mitigated Negative Declaration or Negative Declaration with a Significant Impact on an Identified Tribal Cultural Resource: An Environmental Impact Report may not be certified, nor may a mitigated negative declaration or a negative declaration be adopted unless one of the following occurs:

a. The consultation process between the tribes and the lead agency has occurred as provided in Public Resources Code §21080.3.1 and §21080.3.2 and concluded pursuant to Public Resources Code §21080.3.2.

b. The tribe that requested consultation failed to provide comments to the lead agency or otherwise failed to engage in the consultation process.

c. The lead agency provided notice of the project to the tribe in compliance with Public Resources Code §21080.3.1 (d) and the tribe failed to request consultation within 30 days. (Pub. Resources Code §21082.3 (d)).

The NAHC's PowerPoint presentation titled, "Tribal Consultation Under AB 52: Requirements and Best Practices" may be found online at: http://nahc.ca.gov/wp-content/uploads/2015/10/AB52TribalConsultation_CalEPAPDF.pdf

SB 18

SB 18 applies to local governments and requires local governments to contact, provide notice to, refer plans to, and consult with tribes prior to the adoption or amendment of a general plan or a specific plan, or the designation of open space. (Gov. Code §65352.3). Local governments should consult the Governor's Office of Planning and Research's "Tribal Consultation Guidelines," which can be found online at: https://www.opr.ca.gov/docs/09_14_05_Updated_Guidelines_922.pdf.

Some of SB 18's provisions include:

1. Tribal Consultation: If a local government considers a proposal to adopt or amend a general plan or a specific plan, or to designate open space it is required to contact the appropriate tribes identified by the NAHC by requesting a "Tribal Consultation List." If a tribe, once contacted, requests consultation the local government must consult with the tribe on the plan proposal. **A tribe has 90 days from the date of receipt of notification to request consultation unless a shorter timeframe has been agreed to by the tribe.** (Gov. Code §65352.3 (a)(2)).
2. No Statutory Time Limit on SB 18 Tribal Consultation. There is no statutory time limit on SB 18 tribal consultation.
3. Confidentiality: Consistent with the guidelines developed and adopted by the Office of Planning and Research pursuant to Gov. Code §65040.2, the city or county shall protect the confidentiality of the information concerning the specific identity, location, character, and use of places, features and objects described in Public Resources Code §5097.9 and §5097.993 that are within the city's or county's jurisdiction. (Gov. Code §65352.3 (b)).
4. Conclusion of SB 18 Tribal Consultation: Consultation should be concluded at the point in which:
    a. The parties to the consultation come to a mutual agreement concerning the appropriate measures for preservation or mitigation; or
    b. Either the local government or the tribe, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached concerning the appropriate measures of preservation or mitigation. (Tribal Consultation Guidelines, Governor's Office of Planning and Research (2005) at p. 18).

Agencies should be aware that neither AB 52 nor SB 18 precludes agencies from initiating tribal consultation with tribes that are traditionally and culturally affiliated with their jurisdictions before the timeframes provided in AB 52 and SB 18. For that reason, we urge you to continue to request Native American Tribal Contact Lists and "Sacred Lands File" searches from the NAHC. The request forms can be found online at: http://nahc.ca.gov/resources/forms/.

NAHC Recommendations for Cultural Resources Assessments

To adequately assess the existence and significance of tribal cultural resources and plan for avoidance, preservation in place, or barring both, mitigation of project-related impacts to tribal cultural resources, the NAHC recommends the following actions:

1. Contact the appropriate regional California Historical Research Information System (CHRIS) Center (http://ohp.parks.ca.gov/?page_id=1068) for an archaeological records search. The records search will determine:
    a. If part or all of the APE has been previously surveyed for cultural resources.
    b. If any known cultural resources have already been recorded on or adjacent to the APE.
    c. If the probability is low, moderate, or high that cultural resources are located in the APE.
    d. If a survey is required to determine whether previously unrecorded cultural resources are present.

2. If an archaeological inventory survey is required, the final stage is the preparation of a professional report detailing the findings and recommendations of the records search and field survey.
    a. The final report containing site forms, site significance, and mitigation measures should be submitted immediately to the planning department. All information regarding site locations, Native American human remains, and associated funerary objects should be in a separate confidential addendum and not be made available for public disclosure.
    b. The final written report should be submitted within 3 months after work has been completed to the appropriate regional CHRIS center.

3. Contact the NAHC for:
   a. A Sacred Lands File search. Remember that tribes do not always record their sacred sites in the Sacred Lands File, nor are they required to do so. A Sacred Lands File search is not a substitute for consultation with tribes that are traditionally and culturally affiliated with the geographic area of the project's APE.
   b. A Native American Tribal Consultation List of appropriate tribes for consultation concerning the project site and to assist in planning for avoidance, preservation in place, or, failing both, mitigation measures.

4. Remember that the lack of surface evidence of archaeological resources (including tribal cultural resources) does not preclude their subsurface existence.
   a. Lead agencies should include in their mitigation and monitoring reporting program plan provisions for the identification and evaluation of inadvertently discovered archaeological resources per Cal. Code Regs., tit. 14, §15064.5(f) (CEQA Guidelines §15064.5(f)). In areas of identified archaeological sensitivity, a certified archaeologist and a culturally affiliated Native American with knowledge of cultural resources should monitor all ground-disturbing activities.
   b. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the disposition of recovered cultural items that are not burial associated in consultation with culturally affiliated Native Americans.
   c. Lead agencies should include in their mitigation and monitoring reporting program plans provisions for the treatment and disposition of inadvertently discovered Native American human remains. Health and Safety Code §7050.5, Public Resources Code §5097.98, and Cal. Code Regs., tit. 14, §15064.5, subdivisions (d) and (e) (CEQA Guidelines §15064.5, subds. (d) and (e)) address the processes to be followed in the event of an inadvertent discovery of any Native American human remains and associated grave goods in a location other than a dedicated cemetery.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

cc: State Clearinghouse

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State of California – Natural Resources Agency
DEPARTMENT OF FISH AND WILDLIFE
Inland Deserts Region
3602 Inland Empire Blvd., Suite C-220
Ontario, CA 91764
www.wildlife.ca.gov

GAVIN NEWSOM, Governor
CHARLTON H. BONHAM, Director

December 12, 2021
Sent via email

Ms. Mallory Crecelius
Interim City Manager and City Clerk
City of Blythe
235 N. Broadway
Blythe, CA 92225

Subject: Notice of Preparation of a Draft Environmental Impact Report
Edelweiss Sustainable Farms Commercial Cannabis Project
State Clearinghouse No. 2021120031

Dear Ms. Crecelius:

The California Department of Fish and Wildlife (CDFW) received a Notice of Preparation (NOP) of a Draft Environmental Impact Report (DEIR) from the City of Blythe (City) for the Edelweiss Sustainable Farms Commercial Cannabis Project (Project) pursuant the California Environmental Quality Act (CEQA) and CEQA Guidelines.[1]

Thank you for the opportunity to provide comments and recommendations regarding those activities involved in the Project that may affect California fish and wildlife. Likewise, we appreciate the opportunity to provide comments regarding those aspects of the Project that CDFW, by law, may be required to carry out or approve through the exercise of its own regulatory authority under the Fish and Game Code.

CDFW ROLE

CDFW is California's Trustee Agency for fish and wildlife resources, and holds those resources in trust by statute for all the people of the State. (Fish & G. Code, §§ 711.7, subd. (a) & 1802; Pub. Resources Code, § 21070; CEQA Guidelines § 15386, subd. (a).) CDFW, in its trustee capacity, has jurisdiction over the conservation, protection, and management of fish, wildlife, native plants, and habitat necessary for biologically sustainable populations of those species. (*Id.*, § 1802.) Similarly, for purposes of CEQA, CDFW is charged by law to provide, as available, biological expertise during public agency environmental review efforts, focusing specifically on projects and related activities that have the potential to adversely affect fish and wildlife resources.

1 CEQA is codified in the California Public Resources Code in section 21000 et seq. The "CEQA Guidelines" are found in Title 14 of the California Code of Regulations, commencing with section 15000.

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CDFW is also submitting comments as a Responsible Agency under CEQA. (Pub. Resources Code, § 21069; CEQA Guidelines, § 15381.) CDFW expects that it may need to exercise regulatory authority as provided by the Fish and Game Code. As proposed, for example, the Project may be subject to CDFW's lake and streambed alteration regulatory authority. (Fish & G. Code, § 1600 et seq.) Likewise, to the extent implementation of the Project as proposed may result in "take" as defined by State law of any species protected under the California Endangered Species Act (CESA) (Fish & G. Code, § 2050 et seq.), the Project proponent may seek related take authorization as provided by the Fish and Game Code.

ASSEMBLY BILL (AB) 819

Assembly Bill (AB) 819 was signed into law by the Governor this year and becomes effective January 1, 2022**.** AB 819 will require lead agencies to submit certain environmental documents and notices electronically to the State Clearinghouse (SCH) at Office of Planning and Research (OPR). Thus, effective January 1, 2022, lead agencies must take the following actions to comply with CEQA:

- File on CEQAnet – Draft environmental impact reports (DEIR), proposed negative declarations (ND), proposed mitigated negative declarations (MND) must be filed electronically on CEQAnet (https://ceqanet.opr.ca.gov/) – as opposed to submitting hard copies.
- Post on Agency website – Draft, proposed, and final environmental documents – including DEIRs, EIRs, NDs, MNDs – as well as any notice of preparation (NOP), notice of determination (NOD), notice of completion, or notice of scoping meetings must be posted on the lead agency's website if it has one. Also, notices of availability (NOAs) and hearings related to the DEIR or ND are required to be posted on the lead agency's website, in addition to prior methods of giving notice.
- File and Post with County – NODs must be filed electronically with the county clerk if electronic filings are offered by the county. There is an option to post NODs either in the country clerk's office or on the county clerk's website for a period of 30 days. Additionally, NOPs and NOAs will need to be posted on the county clerk's website and physically, by hard copy, in the county clerk's office.
- Option to email NOPs – If an EIR is required, any NOP may be emailed, rather than mailed, to each entity requiring personal notice – the responsible agency, any public agency with jurisdiction over natural resources affected by the project, and OPR.
- State Agency Filings – State lead agencies are required to file NODs and NOEs electronically on CEQAnet and no longer need to submit hard copies. The filed notice must be available for public inspection on the OPR website for not less than 12 months.
- Public Agency Notice of Completion – Public agencies must file notices of completion on CEQAnet, rather than mailing a paper copy.

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PROJECT DESCRIPTION SUMMARY

The proposed Project includes the development of a commercial complex for indoor cannabis cultivation on Assessor Parcel Number (APN) 836-100-007, an approximately 33.04-acre parcel. The Project is located south of Hobsonway, north of Interstate 10, and approximately 0.25 miles west of South Carlton Avenue in the City of Blythe, Riverside County, California. The Project includes development of twelve buildings, two retention basins, landscaped areas, parking spaces, and gated entry points.

COMMENTS AND RECOMMENDATIONS

CDFW offers the comments and recommendations below to assist the City in adequately identifying and/or mitigating the Project's significant, or potentially significant, direct and indirect impacts on fish and wildlife (biological) resources.

CDFW recommends that the forthcoming DEIR address the following:

Assessment of Biological Resources

Section 15125(c) of the CEQA Guidelines states that knowledge of the regional setting of a project is critical to the assessment of environmental impacts and that special emphasis should be placed on environmental resources that are rare or unique to the region. To enable CDFW staff to adequately review and comment on the project, the DEIR should include a complete assessment of the flora and fauna within and adjacent to the Project footprint, with particular emphasis on identifying rare, threatened, endangered, and other sensitive species and their associated habitats.

The CDFW recommends that the DEIR specifically include:

1. An assessment of the various habitat types located within the project footprint, and a map that identifies the location of each habitat type. CDFW recommends that floristic, alliance- and/or association based mapping and assessment be completed following *The Manual of California Vegetation*, second edition (Sawyer et al. 2009). Adjoining habitat areas should also be included in this assessment where site activities could lead to direct or indirect impacts offsite. Habitat mapping at the alliance level will help establish baseline vegetation conditions.

2. A general biological inventory of the fish, amphibian, reptile, bird, and mammal species that are present or have the potential to be present within each habitat type onsite and within adjacent areas that could be affected by the project. CDFW's California Natural Diversity Database (CNDDB) in Sacramento should be contacted at (916) 322-2493 or CNDDB@wildlife.ca.gov. to obtain current information on any previously reported sensitive species and habitat, including Significant Natural Areas identified under Chapter 12 of the Fish and Game Code, in the vicinity of the proposed Project.

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Please note that CDFW's CNDDB is not exhaustive in terms of the data it houses, nor is it an absence database. CDFW recommends that it be used as a starting point in gathering information about the *potential presence* of species within the general area of the project site.

3. A complete, *recent* inventory of rare, threatened, endangered, and other sensitive species located within the Project footprint and within offsite areas with the potential to be affected, including California Species of Special Concern (CSSC) and California Fully Protected Species (Fish and Game Code § 3511). Species to be addressed should include all those which meet the CEQA definition (CEQA Guidelines § 15380). The inventory should address seasonal variations in use of the Project area and should not be limited to resident species. Focused species-specific surveys, completed by a qualified biologist and conducted at the appropriate time of year and time of day when the sensitive species are active or otherwise identifiable, are required. Acceptable species-specific survey procedures should be developed in consultation with CDFW and the U.S. Fish and Wildlife Service, where necessary. Note that CDFW generally considers biological field assessments for wildlife to be valid for a one-year period, and assessments for rare plants may be considered valid for a period of up to three years. Some aspects of the proposed Project may warrant periodic updated surveys for certain sensitive taxa, particularly if the Project is proposed to occur over a protracted time frame, or in phases, or if surveys are completed during periods of drought.

   Burrowing Owl (*Athene cunicularia*)

   The Project site has the potential to provide suitable foraging and/or nesting habitat for burrowing owl. Take of individual burrowing owls and their nests is defined by Fish and Game Code section 86, and prohibited by sections 3503, 3503.5 and 3513. Take is defined in Fish and Game Code section 86 as "hunt, pursue, catch, capture or kill, or attempt to hunt, pursue, catch, capture or kill."

   CDFW recommends that the City of Blythe follow the recommendations and guidelines provided in the *Staff Report on Burrowing Owl Mitigation* (Department of Fish and Game, March 2012); available for download from CDFW's website: https://www.wildlife.ca.gov/conservation/survey-protocols. The Staff Report on Burrowing Owl Mitigation, specifies three steps for project impact evaluations:

   a. A habitat assessment;
   b. Surveys; and
   c. An impact assessment

   As stated in the Staff Report on Burrowing Owl Mitigation, the three progressive steps are effective in evaluating whether a project will result in impacts to burrowing owls, and the information gained from the steps will inform any subsequent avoidance, minimization, and mitigation measures. Habitat assessments are

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conducted to evaluate the likelihood that a site supports burrowing owl. Burrowing owl surveys provide information needed to determine the potential effects of proposed projects and activities on burrowing owls, and to avoid take in accordance with Fish and Game Code sections 86, 3503, and 3503.5. Impact assessments evaluate the extent to which burrowing owls and their habitat may be impacted, directly or indirectly, on and within a reasonable distance of a proposed CEQA project activity or non-CEQA project.

4. A thorough, recent, floristic-based assessment of special status plants and natural communities, following CDFW's *Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities* (see https://www.wildlife.ca.gov/Conservation/Plants).

5. Information on the regional setting that is critical to an assessment of environmental impacts, with special emphasis on resources that are rare or unique to the region (CEQA Guidelines § 15125[c]).

6. A full accounting of all open space and mitigation/conservation lands within and adjacent to the Project.

Analysis of Direct, Indirect, and Cumulative Impacts to Biological Resources

The DEIR should provide a thorough discussion of the direct, indirect, and cumulative impacts expected to adversely affect biological resources as a result of the Project. To ensure that Project impacts to biological resources are fully analyzed, the following information should be included in the DEIR:

1. A discussion of potential impacts from lighting, noise, human activity (e.g., recreation), defensible space, and wildlife-human interactions created by zoning of development projects or other project activities adjacent to natural areas, exotic and/or invasive species, and drainage. The latter subject should address Project-related changes on drainage patterns and water quality within, upstream, and downstream of the Project site, including: volume, velocity, and frequency of existing and post-Project surface flows; polluted runoff; soil erosion and/or sedimentation in streams and water bodies; and post-Project fate of runoff from the Project site.

2. A discussion of potential indirect Project impacts on biological resources, including resources in areas adjacent to the project footprint, such as nearby public lands (e.g. National Forests, State Parks, etc.), open space, adjacent natural habitats, riparian ecosystems, wildlife corridors, and any designated and/or proposed reserve or mitigation lands (e.g., preserved lands associated with a Natural Community Conservation Plan, or other conserved lands).

3. An evaluation of impacts to adjacent open space lands from both the construction of the Project and any long-term operational and maintenance needs.

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4. A cumulative effects analysis developed as described under CEQA Guidelines section 15130. Please include all potential direct and indirect Project related impacts to riparian areas, wetlands, vernal pools, alluvial fan habitats, wildlife corridors or wildlife movement areas, aquatic habitats, sensitive species and other sensitive habitats, open lands, open space, and adjacent natural habitats in the cumulative effects analysis. General and specific plans, as well as past, present, and anticipated future projects, should be analyzed relative to their impacts on similar plant communities and wildlife habitats.

Alternatives Analysis

CDFW recommends the DEIR describe and analyze a range of reasonable alternatives to the Project that are potentially feasible, would "feasibly attain most of the basic objectives of the Project," and would avoid or substantially lessen any of the Project's significant effects (CEQA Guidelines § 15126.6[a]). The alternatives analysis should also evaluate a "no project" alternative (CEQA Guidelines § 15126.6[e]).

Mitigation Measures for Project Impacts to Biological Resources

The DEIR should identify mitigation measures and alternatives that are appropriate and adequate to avoid or minimize potential impacts, to the extent feasible. The City of Blythe should assess all direct, indirect, and cumulative impacts that are expected to occur as a result of the implementation of the Project and its long-term operation and maintenance. When proposing measures to avoid, minimize, or mitigate impacts, CDFW recommends consideration of the following:

1. *Fully Protected Species*: Fully protected species may not be taken or possessed at any time. Project activities described in the DEIR should be designed to completely avoid any fully protected species that have the potential to be present within or adjacent to the Project area. CDFW also recommends that the DEIR fully analyze potential adverse impacts to fully protected species due to habitat modification, loss of foraging habitat, and/or interruption of migratory and breeding behaviors. CDFW recommends that the Lead Agency include in the analysis how appropriate avoidance, minimization, and mitigation measures will reduce indirect impacts to fully protected species.

2. *Sensitive Plant Communities*: CDFW considers sensitive plant communities to be imperiled habitats having both local and regional significance. Plant communities, alliances, and associations with a statewide ranking of S-1, S-2, S-3, and S-4 should be considered sensitive and declining at the local and regional level. These ranks can be obtained by querying the CNDDB and are included in *The Manual of California Vegetation* (Sawyer et al. 2009). The DEIR should include measures to fully avoid and otherwise protect sensitive plant communities from project-related direct and indirect impacts.

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3. *California Species of Special Concern* (CSSC): CSSC status applies to animals generally not listed under the federal Endangered Species Act or the CESA, but which nonetheless are declining at a rate that could result in listing, or historically occurred in low numbers and known threats to their persistence currently exist. CSSCs should be considered during the environmental review process. CSSC that have the potential or have been documented to occur within or adjacent to the Project area, include but are not limited to burrowing owl, northern harrier, vermillion flycatcher, loggerhead shrike, yellow warbler, yellow-breasted chat, and yellow-headed blackbird.

4. *Mitigation*: CDFW considers adverse project-related impacts to sensitive species and habitats to be significant to both local and regional ecosystems, and the DEIR should include mitigation measures for adverse project-related impacts to these resources. Mitigation measures should emphasize avoidance and reduction of project impacts. For unavoidable impacts, onsite habitat restoration and/or enhancement, and preservation should be evaluated and discussed in detail. Where habitat preservation is not available onsite, offsite land acquisition, management, and preservation should be evaluated and discussed in detail.

   The DEIR should include measures to perpetually protect the targeted habitat values within mitigation areas from direct and indirect adverse impacts in order to meet mitigation objectives to offset project-induced qualitative and quantitative losses of biological values. Specific issues that should be addressed include restrictions on access, proposed land dedications, long-term monitoring and management programs, control of illegal dumping, water pollution, increased human intrusion, etc.

   If sensitive species and/or their habitat may be impacted from the Project, CDFW recommends the inclusion of specific mitigation in the DEIR. CEQA Guidelines section 15126.4, subdivision (a)(1)(8) states that formulation of feasible mitigation measures should not be deferred until some future date. The Court of Appeal in *San Joaquin Raptor Rescue Center* v. *County* of *Merced* (2007) 149 Cal.App.4th 645 struck down mitigation measures which required formulating management plans developed in consultation with State and Federal wildlife agencies after Project approval. Courts have also repeatedly not supported conclusions that impacts are mitigable when essential studies, and therefore impact assessments, are incomplete *(Sundstrom* v. *County* of *Mendocino* (1988) 202 Cal. App. 3d. 296; *Gentry* v. *City* of *Murrieta (1995)* 36 Cal. App. 4th 1359; *Endangered Habitat League, Inc.* v. *County* of *Orange* (2005) 131 Cal. App. 4th 777).

   CDFW recommends that the DEIR specify mitigation that is roughly proportional to the level of impacts, in accordance with the provisions of CEQA (CEQA Guidelines, §§ 15126.4(a)(4)(B), 15064, 15065, and 16355). The mitigation should provide long-term conservation value for the suite of species and habitat being impacted by the Project. Furthermore, in order for mitigation measures to be effective, they need to

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be specific, enforceable, and feasible actions that will improve environmental conditions.

5. *Habitat Revegetation/Restoration Plans*: Plans for restoration and revegetation should be prepared by persons with expertise in southern California ecosystems and native plant restoration techniques. Plans should identify the assumptions used to develop the proposed restoration strategy. Each plan should include, at a minimum: (a) the location of restoration sites and assessment of appropriate reference sites; (b) the plant species to be used, sources of local propagules, container sizes, and seeding rates; (c) a schematic depicting the mitigation area; (d) a local seed and cuttings and planting schedule; (e) a description of the irrigation methodology; (f) measures to control exotic vegetation on site; (g) specific success criteria; (h) a detailed monitoring program; (i) contingency measures should the success criteria not be met; and (j) identification of the party responsible for meeting the success criteria and providing for conservation of the mitigation site in perpetuity. Monitoring of restoration areas should extend across a sufficient time frame to ensure that the new habitat is established, self-sustaining, and capable of surviving drought.

   CDFW recommends that local onsite propagules from the Project area and nearby vicinity be collected and used for restoration purposes. Onsite seed collection should be initiated in the near future in order to accumulate sufficient propagule material for subsequent use in future years. Onsite vegetation mapping at the alliance and/or association level should be used to develop appropriate restoration goals and local plant palettes. Reference areas should be identified to help guide restoration efforts. Specific restoration plans should be developed for various project components as appropriate.

   Restoration objectives should include protecting special habitat elements or re-creating them in areas affected by the Project; examples could include retention of woody material, logs, snags, rocks, and brush piles.

6. *Nesting Birds and Migratory Bird Treaty Act:* Please note that it is the Project proponent's responsibility to comply with all applicable laws related to nesting birds and birds of prey. Fish and Game Code sections 3503, 3503.5, and 3513 afford protective measures as follows: Fish and Game Code section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by Fish and Game Code or any regulation made pursuant thereto. Fish and Game Code section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey) to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by Fish and Game Code or any regulation adopted pursuant thereto. Fish and Game Code section 3513 makes it unlawful to take or possess any migratory nongame bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act of 1918, as amended (16 U.S.C. § 703 et seq.).

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CDFW is aware of the seasonal presence of waterfowl and wetland/marshland birds on the Project site as a result of sheet flow occurring on-site from an adjacent canal associated with the Colorado River. CDFW recommends that the DEIR include the results of avian surveys, as well as specific avoidance and minimization measures to ensure that impacts to nesting birds do not occur. Project-specific avoidance and minimization measures may include, but not be limited to: project phasing and timing, monitoring of project-related noise (where applicable), sound walls, and buffers, where appropriate. The DEIR should also include specific avoidance and minimization measures that will be implemented should a nest be located within the project site. If pre-construction surveys are proposed in the DEIR, the CDFW recommends that they be required no more than three (3) days prior to vegetation clearing or ground disturbance activities, as instances of nesting could be missed if surveys are conducted sooner.

7. *Moving out of Harm's Way:* To avoid direct mortality, CDFW recommends that the lead agency condition the DEIR to require that a CDFW-approved qualified biologist be retained to be onsite prior to and during all ground- and habitat-disturbing activities to move out of harm's way special status species or other wildlife of low or limited mobility that would otherwise be injured or killed from project-related activities. Movement of wildlife out of harm's way should be limited to only those individuals that would otherwise by injured or killed, and individuals should be moved only as far a necessary to ensure their safety (i.e., CDFW does not recommend relocation to other areas). Furthermore, it should be noted that the temporary relocation of onsite wildlife does not constitute effective mitigation for the purposes of offsetting project impacts associated with habitat loss.

8. *Translocation of Species*: CDFW generally does not support the use of relocation, salvage, and/or transplantation as mitigation for impacts to rare, threatened, or endangered species as studies have shown that these efforts are experimental in nature and largely unsuccessful.

California Endangered Species Act

CDFW is responsible for ensuring appropriate conservation of fish and wildlife resources including threatened, endangered, and/or candidate plant and animal species, pursuant to CESA. CDFW recommends that a CESA Incidental Take Permit (ITP) be obtained if the Project has the potential to result in "take" (California Fish and Game Code Section 86 defines "take" as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill") of State-listed CESA species, either through construction or over the life of the project. CESA ITPs are issued to conserve, protect, enhance, and restore State-listed CESA species and their habitats.

CDFW encourages early consultation, as significant modification to the proposed Project and avoidance, minimization, and mitigation measures may be necessary to obtain a CESA ITP. The California Fish and Game Code requires that CDFW comply

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with CEQA for issuance of a CESA ITP. CDFW therefore recommends that the DEIR addresses all Project impacts to listed species and specifies a mitigation monitoring and reporting program that will meet the requirements of CESA.

Lake and Streambed Alteration Program

Based on review of aerial photography at least one drainage feature associated with the Colorado River bounds the Project site to the east, north, and west. Depending on how the Project is designed and constructed, it is likely that the Project applicant will need to notify CDFW per Fish and Game Code section 1602. Fish and Game Code section 1602 requires an entity to notify CDFW prior to commencing any activity that may do one or more of the following: Substantially divert or obstruct the natural flow of any river, stream or lake; Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or Deposit debris, waste or other materials that could pass into any river, stream or lake. Please note that "any river, stream or lake" includes those that are episodic (i.e., those that are dry for periods of time) as well as those that are perennial (i.e., those that flow year-round). This includes ephemeral streams, desert washes, and watercourses with a subsurface flow. It may also apply to work undertaken within the flood plain of a body of water.

The California Department of Cannabis Control (DCC) requires cannabis cultivators to demonstrate compliance with Fish and Game Code section 1602 prior to issuing a cultivation license (Business and Professions Code, § 26060.1). To qualify for an Annual License from DCC, cultivators must have an LSA Agreement or written verification from CDFW that one is not needed. Cannabis cultivators may apply online for an LSA Agreement through the Environmental Permit Information Management System (EPIMS; https://epims.wildlife.ca.gov). Cannabis cultivators may learn more about cannabis cultivation permitting at https://wildlife.ca.gov/Conservation/Cannabis/Permitting.

Please note CDFW's issuance of an LSA Agreement is a "project" subject to CEQA (see Pub. Resources Code 21065). To facilitate issuance of an LSA Agreement, if necessary, the DEIR should fully identify the potential impacts to the lake, stream, or riparian resources, and provide adequate avoidance, mitigation, and monitoring and reporting commitments. Early consultation with CDFW is recommended, since modification of the proposed Project may be required to avoid or reduce impacts to fish and wildlife resources.

ADDITIONAL COMMENTS AND RECOMMENDATIONS

To ameliorate the water demands of this Project, CDFW recommends incorporation of water-wise concepts in project landscape design plans. In particular, CDFW recommends xeriscaping with locally native California species, and installing water-efficient and targeted irrigation systems (such as drip irrigation). Local water agencies/districts, and resource conservation districts in your area may be able to

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provide information on plant nurseries that carry locally native species, and some facilities display drought-tolerant locally native species demonstration gardens (for example the Riverside-Corona Resource Conservation District in Riverside). Information on drought-tolerant landscaping and water-efficient irrigation systems is available on California's Save our Water website: https://saveourwater.com/en/How-to-Save-Water/Around-the-Yard

ENVIRONMENTAL DATA

CEQA requires that information developed in environmental impact reports and negative declarations be incorporated into a database which may be used to make subsequent or supplemental environmental determinations. (Pub. Resources Code, § 21003, subd. (e).) Accordingly, please report any special status species and natural communities detected during Project surveys to the California Natural Diversity Database (CNDDB). Information can be submitted online or via completion of the CNDDB field survey form at the following link: https://wildlife.ca.gov/Data/CNDDB/Submitting-Data. The completed form can be mailed electronically to CNDDB at the following email address: CNDDB@wildlife.ca.gov. The types of information reported to CNDDB can be found at the following link: https://wildlife.ca.gov/Data/CNDDB/Plants-and-Animals.

FILING FEES

The Project, as proposed, would have an impact on fish and/or wildlife, and assessment of filing fees is necessary. Fees are payable upon filing of the Notice of Determination by the Lead Agency and serve to help defray the cost of environmental review by CDFW. Payment of the fee is required in order for the underlying project approval to be operative, vested, and final. (Cal. Code Regs, tit. 14, § 753.5; Fish & G. Code, § 711.4; Pub. Resources Code, § 21089.).

CONCLUSION

CDFW appreciates the opportunity to comment on the NOP of a DEIR for the Edelweiss Sustainable Farms Commercial Cannabis Project (SCH No. 2021120031) and recommends that the City of Blythe address the CDFW's comments and concerns in the forthcoming DEIR. If you should have any questions pertaining to the comments provided in this letter, please contact Cindy Castaneda, Senior Environmental Scientist, Specialist, at (949) 544-1177 or at Cindy.Castaneda@wildlife.ca.gov.

Sincerely,

DocuSigned by:
Alisa Ellsworth
84FBB8273E4C480...

Alisa Ellsworth
Environmental Program Manager

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ec:

HCPB CEQA Program
Habitat Conservation Planning Branch
CEQAcommentletters@wildlife.ca.gov.

Office of Planning and Research, State Clearinghouse, Sacramento
state.clearinghouse@opr.ca.gov.

REFERENCES

California Department of Fish and Game (CDFG). 2012. Staff report on burrowing owl mitigation. State of California, Natural Resources Agency. Available for download at: http://www.dfg.ca.gov/wildlife/nongame/survey_monitor.html.

Sawyer, J. O., T. Keeler-Wolf, and J. M. Evens. 2009. A manual of California Vegetation, 2nd ed. California Native Plant Society Press, Sacramento, California. http://vegetation.cnps.org/

From: Sean Silva <sean@careca.org>
Sent: Wednesday, December 15, 2021 12:55 PM
To: Mallory Sutterfield <msutterfield@cityofblythe.ca.gov>
Subject: Public Records Request - Edelweiss Sustainable Farm Project

December 15, 2021

Via Email and U.S. Mail

City of Blythe
Attn: Mallory Crecelius
235 N Broadway
Blythe, CA 92225
msutterfield@cityofblythe.ca.gov

RE: Public Records Act Request and Request for Mailed Notice of Public Hearings and Actions – Edelweiss Sustainable Farm, W Hobsonway and S Carlton Ave. Blythe, CA 92225

Dear Ms.Crecelius,

CARE CA is writing to request a copy of any and all records related to the project, Edelweiss Sustainable Farm, located at West Hobsonway and South Carlton Avenue in Blythe. The project will be the construction of a commercial complex specialized for the indoor cultivation of cannabis, comprising 12 buildings with a combined 450,600 square feet of space, 2 retention basins, and landscaped areas. We are also writing to request copies of all communications and mailed notice of any and all hearings and/or actions related to the Project.

Our request for mailed notice of all hearings includes hearings, study sessions and community meetings related to the Project, certification of the MND (or recirculated DEIR), and approval of any Project entitlements. This request is made pursuant to Public Resources Code Sections 21092.2, 21080.4, 21083.9, 21092, 21108 and 21152 and Government Code Section 65092, which require local agencies to mail such notices to any person who has filed a written request for them with the clerk of the agency's governing body. Our request includes notice to any City actions, hearings or other proceedings regarding the Project, Project approvals and any actions taken, or additional documents released pursuant to the California Environmental Quality Act.

Our request for all records related to the Project is made pursuant to the California Public Records Act. (Government Code § 6250 et seq.) This request is also made pursuant to Article I, section 3(b) of the California Constitution, which provides a constitutional right of access to information concerning the conduct of government. Article I, section 3(b) provides that any statutory right to information shall be broadly construed to provide the greatest access to government information and further requires that any statute that limits the right of access to information shall be narrowly construed.

We will pay for any direct costs of duplication associated with filling this request up to $200. However, please contact me at (877) 810-7473 with a cost estimate before copying/scanning the materials.

Pursuant to Government Code Section 6253.9, if the requested documents are in electronic format and are 10 MB or less (or can be easily broken into sections of 10 MB or less), please email them to me as attachments.

My contact information is:

U.S. Mail
Jeff Modrzejewski
CARE CA
501 Shatto Pl, Suite 200
Los Angeles, CA 90020

Email
community@careca.org

Please call me if you have any questions. Thank you for your assistance with this matter.

Sincerely,
Jeff Modrzejewski
Executive Director

Department of Cannabis Control
CALIFORNIA

Gavin Newsom
Governor

Nicole Elliott
Director

December 17, 2021

Mallory Crecelius, Interim City Manager and City Clerk
City of Blythe
235 N. Broadway
Blythe, CA 92225

Re: Notice of Preparation (NOP) of an Environmental Impact Report (EIR) for Edelweiss Sustainable Farms Project (SCH No. 2021120031)

Dear Ms. Crecelius:

Thank you for providing the California Department of Cannabis Control (DCC) the opportunity to comment on the Notice of Preparation (NOP) of an Environmental Impact Report (EIR) circulated by the City of Blythe for the Edelweiss Sustainable Farms Project (Proposed Project).

DCC is a Responsible Agency with respect to the Proposed Project, with jurisdiction over the issuance of licenses to operate commercial cannabis businesses in California. DCC issues licenses to cannabis cultivators, cannabis nurseries and cannabis processor facilities, cannabis manufacturing, testing, distribution, and retail facilities, and cannabis microbusinesses, where the local jurisdiction authorizes these activities. (Bus. & Prof. Code, § 26012(a).) All commercial cannabis businesses within the California require a license from DCC. For more information pertaining to commercial cannabis business license requirements, including DCC regulations, please visit: https://cannabis.ca.gov/resources/rulemaking/.

Background

The City of Blythe is the Lead Agency on the Proposed Project, construction of a commercial complex specialized for indoor cultivation of cannabis on approximately 34 acres, in the City of Blythe. The City of Blythe allows commercial cannabis businesses following procurement of a Commercial Cannabis Business Permit from the City of Blythe. (Blythe Code of Ordinances § 5.10.060(a).)

DCC Comments and Recommendations

In response to the NOP, DCC has several comments and recommendations about the anticipated scope of the EIR and recommendations regarding issues the City should address and consider as part of its preparation of the EIR.

Comment *1: Scope of EIR.* The NOP does not specify whether the EIR for the Proposed Project is intended to extend CEQA coverage to any later activities or projects by future tenants approved

to operate within individual units; or whether the scope of the EIR is intended to be solely for the construction of the Edelweiss Sustainable Farms. As noted above, cannabis businesses within the City require a Commercial Cannabis Permit from the City. DCC requests the City of Blythe clarify what City-issued permits and approvals are intended to be covered by the Proposed Project EIR.

Note that DCC requires an annual-license applicant to provide operation-specific evidence of exemption from, or compliance with, CEQA (4 Cal. Code of Regs. § 15010). If a local jurisdiction prepares a site-specific CEQA compliance document, or record of decision for the conclusion that no further CEQA documentation is required, it improves the efficiency with which DCC can issue annual licenses for projects located within that jurisdiction.

Comment 2: Project Description. If the City intends the Proposed Project EIR to cover all cannabis business activities that would take place at the industrial complex, DCC requests the City provide detailed assumptions for future tenants' proposed cannabis business activities as part of the EIR's Project Description. To the extent these details would be known, or could be provided as an estimation, assumption, and/or worst-case-scenario, the project description should include operation details for cannabis business facilities, including:

- the proposed canopy size of any cultivation operations and the types of operations and cultivation methods that would occur on site;
- the types of any manufacturing activities that would occur on site;
- the expected number of employees;
- the number of daily trips to and from the site for employee commuting, delivery of materials or supplies, and shipment of product;
- the source and amounts of water to be used for the facility, including any water efficiency equipment that would be used;
- the types of lighting that would be used;
- the types of odor control methods to be employed;
- the types of hazardous materials that will be used on the site, including fuels, fertilizers, pesticides, volatile solvents, and chemicals;
- environmental protection measures that will be incorporated into the future proposed cultivation operation, and whether these measures will be considered mitigation measures or conditions of permit issuance;
- the utilities needed to serve the facility, including sewer service, and whether such utilities are currently available to serve the site with sufficient capacity for the project; and
- the source (equipment) and amounts of energy expected to be used in operating the facility, including any energy management and efficiency features incorporated into the Proposed Project.

If the City intends to evaluate both the construction of the facility as well as the operations that would take place in the facility, the project description should clearly describe the details of both of these elements.

DCC has attached a memorandum entitled *CEQA Practice Recommendations from DCC for Cannabis Licensing – Project Description Content*, which describes best practices concerning project descriptions. Note that the project description memorandum pertains not only to this EIR, but broadly to all projects, regardless of the type of CEQA document being prepared.

Comment 3: Analysis of Resource Impacts from Future Tenants, as applicable. If the City intends for the EIR to cover the operational activities of future tenants, it must provide an analysis of impacts specifically resulting from the operations and maintenance activities that would take place at the site. As examples, resource impacts may result from energy or water use, greenhouse gas emissions from operations and vehicle traffic, odor impacts, and noise generation.

CEQA requires that Lead Agencies evaluate the environmental impacts of proposed projects and support factual conclusions with substantial evidence. DCC requests that any analyses of operations and maintenance activities clearly cite the source(s) of the evidence relied upon for each impact discussion. If the City relies upon assumptions or estimates to determine impacts from potential future tenants' activities based on other similar commercial cannabis projects, those assumptions should be clearly described and analyzed. This information would be particularly useful for resource topics, such as air quality, energy, greenhouse gas emissions, and transportation and traffic, where modeling requires baseline assumptions for operational equipment usage, including cannabis ventilation systems, power generators, indoor lighting, and vehicle trips.

Comment 4: Subsequent CEQA Analysis/Tiering and Streamlining. If the City anticipates that site-specific CEQA compliance for individual cannabis projects within the Edelweiss Sustainable Farms project would be completed at a later date, DCC requests that the City of Blythe indicate how the City intends to complete any subsequent site-specific environmental assessments. This may include subsequent CEQA documents (e.g., IS/NDs, IS/MNDs, and EIRs), addenda to the Proposed Project EIR, and/or determinations that no further documentation would be needed.

DCC encourages local jurisdictions to use CEQA streamlining options when appropriate. For tenant projects that are not fully covered under the Proposed Project EIR and not exempt from CEQA, DCC recommends that the City prepare a CEQA document (an addendum, IS/ND, IS/MND, or EIR that tiers from the Proposed Project EIR, as appropriate (i.e., incorporating by reference general discussions and concentrating a later environmental assessment solely on the issues specific to the later project). DCC recommends that the City of Blythe prepare Notices of Determination (NODs) and file them with the State Clearinghouse for all subsequent site-specific CEQA documentation, addenda, and/or other later activities approved using CEQA streamlining approaches.

DCC has attached a memorandum entitled *CEQA Practice Recommendations from DCC for Cannabis Cultivation Licensing – Tiering and Other Streamlined Site-Specific CEQA Compliance Approaches*, which may be useful to the City in considering site-specific CEQA compliance for cultivation projects.

Comment 5**: **Analysis of Site-Specific Resource Impacts. Some environmental topics may generally fall outside of DCC's regulatory authority because these topics are regulated by local land use. These could include issues such as aesthetics, land use and planning, geology and soils, mineral resources, noise, odors, regional recreational facilities and services, compliance with building standards, provisions for police and fire protection, and connections to public utilities (e.g., public water, wastewater, and storm drainage systems). Many of these topics involve the evaluation of site-specific conditions, the details of which may not be known by state regulatory agencies. In addition, local conditions affecting resources, such as site-specific groundwater availability, traffic conditions, and wildfire risk may be best assessed and evaluated by local lead agencies.

DCC requests that the City of Blythe's Proposed Project EIR, and/or other subsequent environmental analyses completed for tenant activities, evaluate potential impacts of licensed commercial cannabis cultivation activities of these resource topics at an appropriate site-specific level. Evaluations should include mitigation measures that, when applied to the Proposed Project and later defined tenant cultivation activities, would ensure that the Proposed Project would not result in significant adverse impacts on the environment, as determined necessary.

Comment 6**: **Cumulative Impacts. It is important for the Proposed Project EIR to disclose and evaluate potential cumulative impacts of cannabis business activities. Of particular importance are topics for which the impacts of the Proposed Project may be less than significant, but collectively with other existing and proposed cannabis operations, and/or other industrial complexes where it is allowable, and reasonable to predict future cannabis operations may be permitted, would contribute to a significant cumulative impact. These topics include:

- Impacts of groundwater diversions on the health of the underlying aquifer, including impacts on other users, impacts on stream-related resources connected to the aquifer;
- Impacts on terrestrial biological species and habitats, particularly special-status species as defined under CEQA;
- Impacts related to noise; and
- Impacts related to air quality and objectionable odors.

Comment 7: Consideration of DCC Regulations

DCC has published regulations containing environmental protection measures, designed to reduce the severity of environmental impacts for several resource topics. The EIR's analysis could benefit from a review of the protections for environmental resources provided by DCC's regulations, and a discussion of how these regulations may affect or reduce the severity of the Proposed Project's environmental impacts. Current DCC regulations can be found at: https://cannabis.ca.gov/resources/rulemaking/.

Comment 8: DCC Noticing. In order to ensure that the EIR is sufficient for DCC's needs when it reviews cultivation applications related to the Proposed Project, DCC requests the City of Blythe include DCC in the Reviewing Agencies Checklist for the Proposed Project, and that a copy of the draft EIR be provided to DCC for comment when complete. This comment applies to all future CEQA documents for commercial cannabis business projects within the City of Blythe. Further, DCC requests that a copy of the final EIR and a signed Notice of Determination be provided to future tenants, so future cannabis applicants can include them with their application package submitted to DCC.

Conclusion

DCC appreciates the opportunity to provide comments on the IS/MND for the Proposed Project. If you have any questions about our comments or wish to discuss them, please contact Kevin Ponce, Senior Environmental Scientist Supervisor, at (916) 247-1659 or via e-mail at Kevin.Ponce@cannabis.ca.gov.

Sincerely,

Lindsay Rains
Licensing Program Manager

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix B
Photometric Plan

May 2022

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ELECTRICAL GENERAL NOTES

SCALE: NTS | 6

REGULATIONS, CODES AND PERMITS

1. THE COMPLETE ELECTRICAL SYSTEM SHALL BE INSTALLED IN ACCORDANCE WITH THE FOLLOWING CODES:
   a. 2019 CALIFORNIA BUILDING STANDARDS ADMINISTRATIVE CODE, PART 1, TITLE 24, CALIFORNIA CODE OF REGULATIONS (CCR)
   b. 2019 CALIFORNIA BUILDING CODE, PART 2, TITLE 24, CCR
   c. 2019 CALIFORNIA ELECTRICAL CODE, PART 4, TITLE 24 CCR
   d. 2019 CALIFORNIA MECHANICAL CODE, PART 4 TITLE 24, CCR
   e. 2019 CALIFORNIA PLUMBING CODE, PART 5, TITLE 24, CCR
   f. 2019 CALIFORNIA FIRE CODE, PART 9, TITLE 24, CCR
2. NOTHING ON THE DRAWINGS, GENERAL NOTES OR SPECIFICATIONS IS TO BE INTERPRETED AS PERMITTING WORK NOT CONFORMING WITH ANY CODE, REGULATION OR CITY ORDINANCES.

EXISTING CONDITIONS

1. WHEN APPLICABLE, THE CONTRACTOR SHALL VERIFY EXISTING SITE AND/OR BUILDING CONDITIONS AND NOTIFY THE PROJECT MANAGER AND ARCHITECT IF A CONFLICT EXISTS.
2. NOTIFY UNDERGROUND DIG ALERT (811) TO INDENTIFY EXISTING UNDERGROUND STRUCTURES PRIOR TO BEGINNING UNDERGROUND WORK.
3. CONTACT THE PROJECT MANAGER AND ARCHITECT WHEN IT BECOMES NECESSARY TO CORE, DRILL OR CUT THROUGH EXISTING CONDITIONS. REPAIRS SHALL BE MADE TO THE SATISFACTION OF THE ARCHITECT.

MATERIALS

1. ELECTRICAL MATERIALS AND PARTS SHALL BE PROVIDED BY THE SAME MANUFACTURE FOR EACH CLASS OR GROUP OF MATERIALS.
2. ALL MATERIALS, PARTS AND EQUIPMENT SHALL BE NEW UNLESS OTHERWISE NOTED.
3. EXISTING MATERIALS, PARTS AND EQUIPMENT TO BE RE-USED SHALL BE CLEANED AND REPAIRED.
4. ALL CONDUCTORS AND EQUIPMENT SHALL BE ACCEPTABLE ONLY IF APPROVED. EQUIPMENT SHALL BE APPROVABLE IF IT IS LISTED, LABELED OR CERTIFIED FOR ITS USE BY A NATIONALLY RECOGNIZED TESTING LABORATORY (NRTL) AS RECOGNIZED BY THE U.S. DEPARTMENT OF LABOR, OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION PER SECTION 110.2 OF THE CALIFORNIA ELECTRICAL CODE.

SERVICES

1. THE CONTRACTOR SHALL COORDINATE ALL SERVICE REQUIREMENTS WITH EACH UTILITY COMPANY PRIOR TO BIDDING THE PROJECT.
2. THE CONTRACTOR SHALL VERIFY ALL UTILITY COMPANY SERVICE REQUIREMENTS (POWER, TELEPHONE AND CABLE), POINT OF CONNECTIONS, QUANTITY OF CONDUITS AND SIZES, CONDUIT INSTALLATION, CONDUIT ENCASEMENT, PULL BOX, VAULTS, EQUIPMENT PADS, JOINT TRENCHES AND EQUIPMENT GROUNDING REQUIREMENTS.
3. VERIFY THE AVAILABLE FAULT CURRENT WITH THE UTILITY COMPANY PRIOR TO SUBMITTING ELECTRICAL DISTRIBUTION EQUIPMENT SHOP DRAWINGS.
4. COORDINATE ALL UTILITY COMPANY INSPECTIONS DURING THE INSTALLATION OF CONDUITS AND STRUCTURES.

GROUNDING

1. THE COMPLETE ELECTRICAL SYSTEM SHALL BE GROUNDED IN ACCORDANCE WITH ARTICLE 250 - GROUNDING, OF THE CALIFORNIA ELECTRICAL CODE (CEC)
2. VERIFY SYSTEM GROUNDING REQUIREMENTS AND PROVIDE GROUND RODS AS REQUIRED TO INSURE THAT THE RESISTANCE TO GROUND IS 25 OHMS OR LESS.

SERVICE AND DISTRIBUTION EQUIPMENT

1. PANEL BOARDS WITH MOLDED CASE CIRCUIT BREAKERS SHALL BE FURNISHED WITH HINGED LOCKABLE DOORS. PANELS SHALL BE AS MANUFACTURED BY SEIMANS, CUTLER-HAMMER OR EQUAL.
2. REFER TO PANEL SCHEDULES FOR PANEL MOUNTING REQUIREMENTS, VOLTAGE AND INDIVIDUAL DEVICE REQUIREMENTS.
3. NO PIPES, DUCTS OR EQUIPMENT FOREIGN TO THE ELECTRICAL SYSTEM SHALL BE PERMITTED TO BE LOCATED WITHIN THE DEDICATED SPACE ABOVE THE MAIN SWITCHBOARD, DISTRIBUTION OR ELECTRICAL PANELS.
4. THE CONTRACTOR SHALL CONFIRM THAT EQUIPMENT WORKING SPACE AND GUARDING MEETS THE INTENT OF THE APPLICABLE CODE. REFER TO CEC ARTICLE 110.26 FOR REQUIREMENTS.
5. APPLICABLE EQUIPMENT MANUFACTURER'S SHALL BE RSE SIERRA, SIEMENS, GENERAL ELECTRIC, SQUARE D OR WESTINGHOUSE.

BRANCH CIRCUITING

1. BRANCH CONDUIT AND WIRE HASH MARKS MAY NOT BE DEPICTED ON THE DRAWINGS. THE CONTRACTOR SHALL PROVIDE BRANCH CONDUITS AND WIRING TO ALL CIRCUITS INDICATED AND AS REQUIRED FOR A COMPLETE AND OPERABLE BRANCH CIRCUIT DISTRIBUTION SYSTEM IN ACCORDANCE WITH THE 2019 CALIFORNIA ELECTRICAL CODE.
2. MINIMUM CONDUCTOR SIZE SHALL BE #12 COPPER WITH A MINIMUM CONDUIT SIZE OF 1/2".
3. PROVIDE A GREEN GROUND CONDUCTOR IN ALL BRANCH CIRCUIT AND FEEDER CABLES OR CONDUITS.

OUTLET, JUNCTION AND PULL BOXES

1. BOXES OR SPLICE BOX ENCLOSURES SHALL BE SIZED AND INSTALLED IN ACCORDANCE WITH THE ELECTRICAL CODE ARTICLE 314. BOXES LOCATED OUTDOORS, WET OR DAMP LOCATIONS SHALL BE WEATHER PROOF.
2. VERIFY THE MOUNTING HEIGHT OF ALL OUTLET BOXES PRIOR TO INSTALLATION. COORDINATE WITH OTHER TRADES AND CONSTRUCTION DOCUMENTS.

CONDUIT

1. ELECTRICAL METALLIC TUBING UP TO 4" SHALL BE USED AS PERMITTED BY THE ELECTRICAL CODE.
2. PVC SCHEDULE 40 CONDUITS SHALL BE USED FOR UNDERGROUND INSTALLATIONS WHEN CONDUIT IS IN CONTACT WITH EARTH.
3. MC CABLE SHALL BE ACCEPTABLE TO USE WHERE ALLOWED BY CODE.
4. LIQUID TIGHT FLEXIBLE CONDUITS SHALL BE USED FOR ALL FINAL CONNECTIONS TO MOTORS AND CONTROL DEVICES MOUNTED ON VIBRATING OR ROTATING EQUIPMENT.
5. THE MINIMUM CONDUIT SIZE PERMITTED SHALL BE 1/2".
6. PROVIDE A CODE SIZED COPPER GROUND CONDUCTOR IN ALL UNDERGROUND PVC CONDUIT SYSTEMS. ELECTRICAL METALLIC RACEWAY SYSTEMS SHALL BE GROUNDED TO THE SAME GROUND SYSTEM.
7. PENETRATIONS THROUGH FIRE RATED WALLS, CEILINGS AND FLOORS SHALL BE MADE WITH APPROVED FIRE RATED MATERIALS TO MAINTAIN THE FIRE RATING OF THE ASSEMBLY. FIRE RATING MATERIALS SHALL BE AS MANUFACTURED BY HILTI OR 3M.

DEVICES

1. SWITCHES SHALL HAVE A RATING OF 20 AMPERE AND BE TOTALLY ENCLOSED TOGGLE TYPE WITH 227V A.C. RATING FOR FULL CAPACITY. MANUFACTURED BY PASS & SEYMOUR, HUBBELL OR LEVITON.
2. DEVICE AND COVER PLATE COLORS SHALL BE COORDINATED WITH THE PROJECT MANAGER AND ARCHITECT PRIOR TO INSTALLATION.
3. RECEPTACLES SHALL BE GROUNDED TYPE 120 VOLT RATED AT 20 AMPERE TOTALLY ENCLOSED. MANUFACTURED BY PASS & SEYMOUR, HUBBELL OR LEVITON.
4. GFCI RECEPTACLES SHALL BE PROVIDED AT LOCATIONS INDICATED AND IN ACCORDANCE WITH THE CALIFORNIA ELECTRICAL CODE ARTICLE 210.8.
5. MULTIPLE SWITCHES AT THE SAME LOCATION WHICH CONTROL DIFFERENT VOLTAGES SHALL BE INSTALLED IN A BARRIERED BOX WITH A COMMON COVER PLATE. PROVIDE A VISIBLE LABEL IN THE BOX THAT LISTED THE VOLTAGES.

CONDUCTORS & WIRING

1. ALL CONDUCTORS SHALL BE COPPER WITH AMPACITY RATINGS IN ACCORDANCE WITH ARTICLE 310.16.
2. CONDUCTORS SHALL BE CODE GRADE THHN/THWN (DRY/WET) 600 VOLT 75 DEGREE C. COPPER WITH MARKINGS (24" O.C.) INDICATING MANUFACTURE, WIRE TYPE, AMPERAGE AND SIZE.
3. LOW VOLTAGE CONDUCTORS FOR HVAC AND OTHER SYSTEMS REQUIRING LOW VOLTAGE CONTROL SIGNALS SHALL BE SIZED IN ACCORDANCE TO SPECIFIC SYSTEM REQUIREMENTS.
4. CONDUCTOR FOR SPECIAL SYSTEMS (DATA, TELEPHONE, SIGNAL, FIRE ALARM ETC.) SHALL MEET THE SYSTEM SPECIFICATION AND CODE REQUIREMENTS GOVERNING SYSTEM INSTALLATION REQUIREMENTS.

LIGHTING

1. THE LIGHTING FIXTURES ARE SPECIFIED WITH A GENERIC MOUNTING FORMAT. THE CONTRACTOR IS RESPONSIBLE TO VERIFY AND PROVIDE ALL HANGARS, CLIPS AND NECESSARY HARDWARE TO INSTALL LIGHTING FIXTURES AT THE LOCATION INDICATED ON THE ARCHITECTURAL AND ELECTRICAL DRAWINGS.
2. THE CONTRACTOR SHALL VERIFY THE LIGHTING FIXTURE VOLTAGE PRIOR TO SUBMITTING SHOP DRAWINGS.
3. LIGHT FIXTURES INDICATED AS EMERGENCY SHALL BE PROVIDED WITH A NINETY (90) MINUTE EMERGENCY BALLAST AND REMOTE TEST SWITCH. THE EMERGENCY BALLAST SHALL BE A BODINE #B50 SERIES OR EQUAL, FOR 2' THROUGH 8' LAMPS, AND BODINE #B84 SERIES OR EQUAL FOR COMPACT FLUORESCENT LAMPS. THE CHARGING CIRCUIT SHALL BE CONNECTED TO THE BATTERY UNIT AND SHALL REMAIN HOT AT ALL TIMES AND OVER-RIDE LOCAL SWITCHING CONTROLS IN CASE OF A POWER OUTAGE.

SIGNAL AND DATA SYSTEMS

1. PROVIDE CONDUIT HOME RUNS FROM SYSTEM DEVICES TO RESPECTIVE SYSTEM BACKBOARD, TERMINAL CABINET OR EQUIPMENT RACK.
2. EQUIPMENT BACKBOARDS SHALL BE PROVIDED WITH A SYSTEM GROUND SIZED IN ACCORDANCE WITH THE SYTEM AND ELECTRICAL CODE REQUIREMENTS.

MECHANICAL SYSTEMS

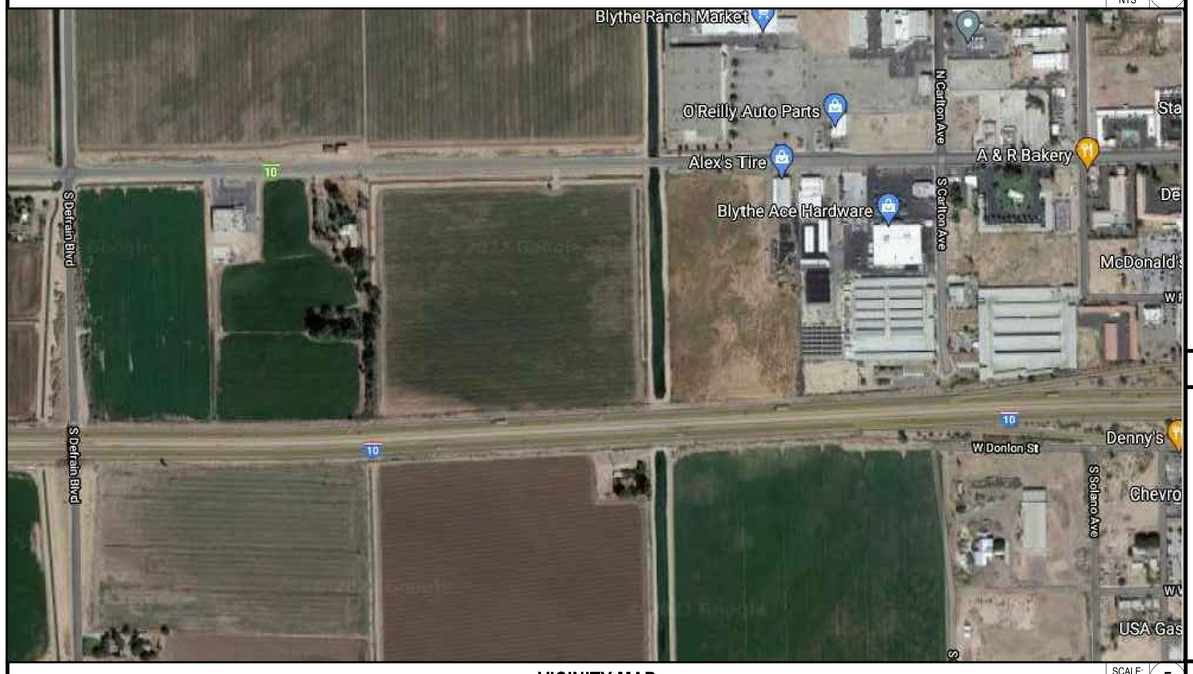
1. VERIFY EXACT LOCATIONS AND ORIENTATION OF ALL MECHANICAL EQUIPMENT WITH MECHANICAL DRAWINGS. FIELD VERIFY CONDITIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH IN.
2. ELECTRICAL CONTRACTOR SHALL CHECK ROTATION OF ALL THREE PHASE MOTORS AND CORRECT THE ROTATION IF NECESSARY.
3. ELECTRICAL CONTRACTOR SHALL PROVIDE FUSES SIZED PER THE MANUFACTURER'S RECOMMENDATIONS.
4. ALL EXTERIOR MOUNTED EQUIPMENT SHALL BE WEATHERPROOF (NEMA 3R).

FIRE PENETRATIONS

1. PENETRATIONS IN WALLS REQUIRING PROTECTED OPENINGS SHALL BE FIRE-STOPPED. FIRESTOPPING SHALL BE AN APPROVED MATERIAL SECURELY INSTALLED AND CAPABLE OF MAINTAINING ITS INTEGRITY WHEN SUBJECTED TO TEST TEMPERATURES PRESCRIBED IN ASTM STANDARD E119 FOR THE SPECIFIC WALL OR PARTITION.
2. OPENINGS IN WALLS AND HORIZONTAL ASSEMBLIES SHALL BE PROTECTED AS SPECIFIED IN THE C.B.C. SECTION 714. WHEN FIRE-RATED WALLS AND PARTITIONS REQUIRE PROTECTED OPENINGS, THE FOLLOWING PENETRATIONS INTO OR THROUGH SUCH CONSTRUCTION ARE PERMITTED:
   A. COPPER OR FERROUS PIPES OR CONDUITS MAY PENETRATE THE WALLS OR PARTITIONS, PROVIDED FIRESTOPPING IS PROVIDED IN ACCORDANCE WITH NOTE #1 OF THIS SECTION AND AS DETAILED ON SHEET E0.2.
   B. OPENINGS FOR STEEL ELECTRICAL OUTLET BOXES NOT EXCEEDING 16 SQUARE INCHES IN AREA, PROVIDED THAT THE AREA OF SUCH OPENINGS DOES NOT EXCEED 100 SQUARE INCHES FOR ANY 100 SQUARE FEET OF WALL OR PARTITION AREA. OUTLET BOXES ON OPPOSITE SIDES OF WALL OR PARTITIONS SHALL BE SPEPARATED BY A HORIZONTAL DISTANCE OF 24 INCHES.
   C. WHEN WALLS ARE PENETRATED BY OTHER MATERIALS OR WHERE LARGER OPENINGS ARE REQUIRED THAN PERMITTED IN (B) ABOVE, THEY SHALL BE QUALIFIED BY TEST CONDUCTED IN ACCORDANCE WITH THE PROVISIONS OF SECTION 714.
3. WHERE FIRE WALLS OCCUR BETWEEN DWELLING UNITS:
   A. OUTLETS SHALL NOT BE BACK TO BACK AND SHALL BE A MINIMUM OF 24" APART.
   B. WHERE THE 24" SPACING IS NOT OBTAINABLE, CONTRACTOR SHALL INSTALL BOXES WITH FIRESTOP PUTTY PADS AS MANUFACTURED BY HILTI CP617 OR EQUAL. PUTTY PAD SHALL HAVE A MINIMUM STC RATING OF 50.

VICINITY MAP

SCALE: NTS | 5



NOT USED

SCALE: NTS | 4

ABBREVIATIONS

SCALE: NTS | 3

ADA - AMERICAN WITH DISABILITIES ACT
AFF - ABOVE FINISH FLOOR OR GRADE
AWG - AMERICAN WIRE GAUGE
AMP, A - AMPERES
AIC - INTERRUPTING CAPACITY (SYMMETRICAL)
CIRC, CKT - CIRCUIT
CB - CIRCUIT BREAKER
CO - CONDUIT ONLY
CEC - CALIFORNIA ELECTRICAL CODE
CSFM - CALIFORNIA STATE FIRE MARSHALL
CU - COPPER
CT - CURRENT TRANSFORMER
DIA - DIAMETER
DWG - DRAWING
EC - ELECTRICAL CONTRACTOR
EM - EMERGENCY
EMT - ELECTRICAL METALLIC TUBING
EF - EXHAUST FAN
EG - EQUIPMENT GROUND (GREEN)
E - EXISTING
F - FUSED
FT - FEET
FA - FIRE ALARM
FLA - FULL LOAD AMPS
FF - FINISHED FLOOR
GFCI - GROUND FAULT CIRCUIT INTERRUPTER
GRND - GROUND
HOA - HAND/OFF/AUTO
HVAC - HEATING, VENTILATING AND AIR CONDITIONING
HP - HORSEPOWER
INC - INCANDESCENT
JB - JUNCTION BOX
K - KELVIN
KVA - KILOVOLT AMPERES
KW - KILOWATT
KV - KILOVOLTS
LCL - LONG CONTINUOUS LOAD
LTG - LIGHT, LIGHTS, LIGHTING
MCB - MAIN CIRCUIT BREAKER
MIN - MINIMUM
MLO - MAIN LUGS ONLY
MCM, KCMIL - THOUSAND CIRCULAR MILS
MFGR - MANUFACTURER
MTD, MTG - MOUNTED, MOUNTING
NEC - NATIONAL ELECTRICAL CODE
NTS - NOT TO SCALE
NIC - NOT IN CONTRACT
NL - NIGHT LIGHT
OFCI - OWNER FURNISHED, CONTRACTOR INSTALLED
P - POLE
PB - PULL BOX
PC - PHOTOCELL
PH - PHASE
PVC - POLYVINYL CHLORIDE CONDUIT
PWR - POWER
PNL - PANEL
PR - PATIENT ROOM
REC, RECEPT - RECEPTACLE
SHT - SHEET
SQ - SQUARE
SW - SWITCH
TYP - TYPICAL
UON - UNLESS OTHERWISE NOTED
UGPS - UNDERGROUND PULL SECTION
V - VOLTS
VA - VOLT AMPERES
WP - WEATHERPROOF
W - WIRE
XFMR - TRANSFORMER

ELECTRICAL LEGEND

SCALE: NTS | 2

- DUPLEX RECEPTACLE - WALL MOUNTED +18" OR AS NOTED
- GFI DUPLEX GFCI RECEPTACLE - WALL MOUNTED +18" OR AS NOTED
- QUAD RECEPTACLE - WALL MOUNTED +18" AFF OR AS NOTED
- SPECIALLY RATED RECEPTACLE. SIZE AND NEMA CONFIGURATION AS REQUIRED OR AS NOTED ON PLANS
- DUPLEX RECEPTACLE - WIRE FOR HALF-HOT AND HALF-SWITCHED +18" AFF OR AS NOTED
- $ SINGLE POLE SWITCH - WALL MOUNTED +42" OR AS NOTED, SUBSCRIPT SYMBOLS INDICATE THE FOLLOWING:
  3 - THREE WAY SWITCH
  4 - FOUR WAY SWITCH
  OS - OCCUPANCY SWITCH
  D - DIMMER
  A,B,C, ETC. - INDICATES THE NUMBER OF SWITCHES AND LIGHT FIXTURES CONTROLLED
- J JUNCTION BOX - ACCESSIBLE FOR THE APPLICATION SHOWN ON THE DRAWINGS
- J JUNCTION BOX - WALL MOUNTED +18" AFF OR AS NOTED
- SURFACE MOUNTED PANELBOARD - REFER TO PANEL SCHEDULE AND GENERAL NOTES
- FLUSH MOUNTED PANELBOARD - REFER TO PANEL SCHEDULE AND GENERAL NOTES
- SURFACE MOUNTED SWITCHBOARD/DISTRIBUTION PANELBOARD - REFER TO PANEL SCHEDULE AND GENERAL NOTES
- SURFACE MOUNTED COMMUNICATIONS BACKBOARD - AC GRADE OR BETTER. VOID-FREE 4'x8' SHEETS OF 3/4" PLYWOOD SHEETS SHALL BE MOUNTED VERTICALLY FROM CEILING HEIGHT TOWARDS FLOOR. PLYWOOD MUST BE PAINTED ON ALL SIDES WITH ONE COAT OF PRIMER AND TWO COATS OF WHITE FIRE RESISTANT PAINT. THE PLYWOOD SOULD BE INSTALLED WITH THE GRADE 'C' SURFACE FACING THE WALL
- SYSTEM GROUND IN ACCORDANCE WITH ELECTRICAL CODE ARTICLE #250
- 'A'-2,4,6 CIRCUIT HOMERUN TO PANEL 'A' CIRCUITS 2,4,6. PROVIDE CODE SIZED COPPER BOND CONDUCTOR AS REQUIRED AND REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- CONDUITS CONCEALED WITHIN BUILDING WALLS OR CEILING SPACE. PROVIDE CODE SIZED COPPER AND CONDUCTOR AS REQUIRED AND REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- UNDERGROUND CONDUITS. PROVIDE CODE SIZED COPPER AND CONDUCTOR AS REQUIRED AND REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- LOW-VOLTAGE CONDUITS. PROVIDE CODE SIZED COPPER AND CONDUCTOR AS REQUIRED AND REFER TO THE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS
- F DISCONNECT SWITCH - FUSED AND H.P. RATED PER MANUFACTURERS REQUIREMENTS OF EQUIPMENT BEING SERVED
- EXHAUST FAN - PROVIDED BY THE MECHANICAL CONTRACTOR. WIRED BY THE ELECTRICAL CONTRACTOR. REFER TO THE MECHANICAL DRAWINGS FOR SPECIFICATION
- BUS BAR
- GFP GROUND FAULT PROTECTION DEVICE
- RECESSED FLOOR BOX-PER FLOOR TYPE WITH FOURPLEX AND COMBINATION TELEPHONE AND DATA OUTLET
- C CAPTIVE CARD KEY CONTROL SWITCH WALL MOUNTED +42" AFF OR AS NOTED
- TV TELEVISION OUTLET BOX - WALL MOUNTED +18" OR AS NOTED. PROVIDE A 3/4" CONDUIT WITH COAXIAL CABLE TO THE COMMUNICATION BACKBOARD UNLESS OTHERWISE NOTES
- COMBINATION TELEPHONE AND DATA OUTLET - WALL MOUNTED +18" AFF OR AS NOTED
- EV ELECTRICAL VEHICLE CHARGING STATION

SHEET INDEX

SCALE: NTS | 1

E.0 - TITLE
E8-0 - SITE PHOTOMETRIC
E8-1 - N/E SITE PHOTOMETRIC
E8-2 - N/W SITE PHOTOMETRIC
E8-3 - S/E SITE PHOTOMETRIC
E8-4 - S/W SITE PHOTOMETRIC
E8-5 - SITE FIXTURES

DRAWINGS PREPARED EXCLUSIVELY FOR:

SO.CAL.WESTCOASTELECTRIC
POWERING AND CONNECTING YOUR WORLD

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SOUTHERN CALIFORNIA WEST COAST ELECTRIC
252 W. 4TH STREET #F
BEAUMONT, CA 92223
PHONE:(951)849-4223
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CONTRACTOR

SOUTHERN CALIFORNIA WEST COAST ELECTRIC INCORPORATED OCTOBER 29, 1965 CALIFORNIA

CA LIC. #462222

DESIGNER

PROJECT

PROJECT COMPANY
PROJECT ADDRESS
PROJECT CITY

ENGINEER NOTES

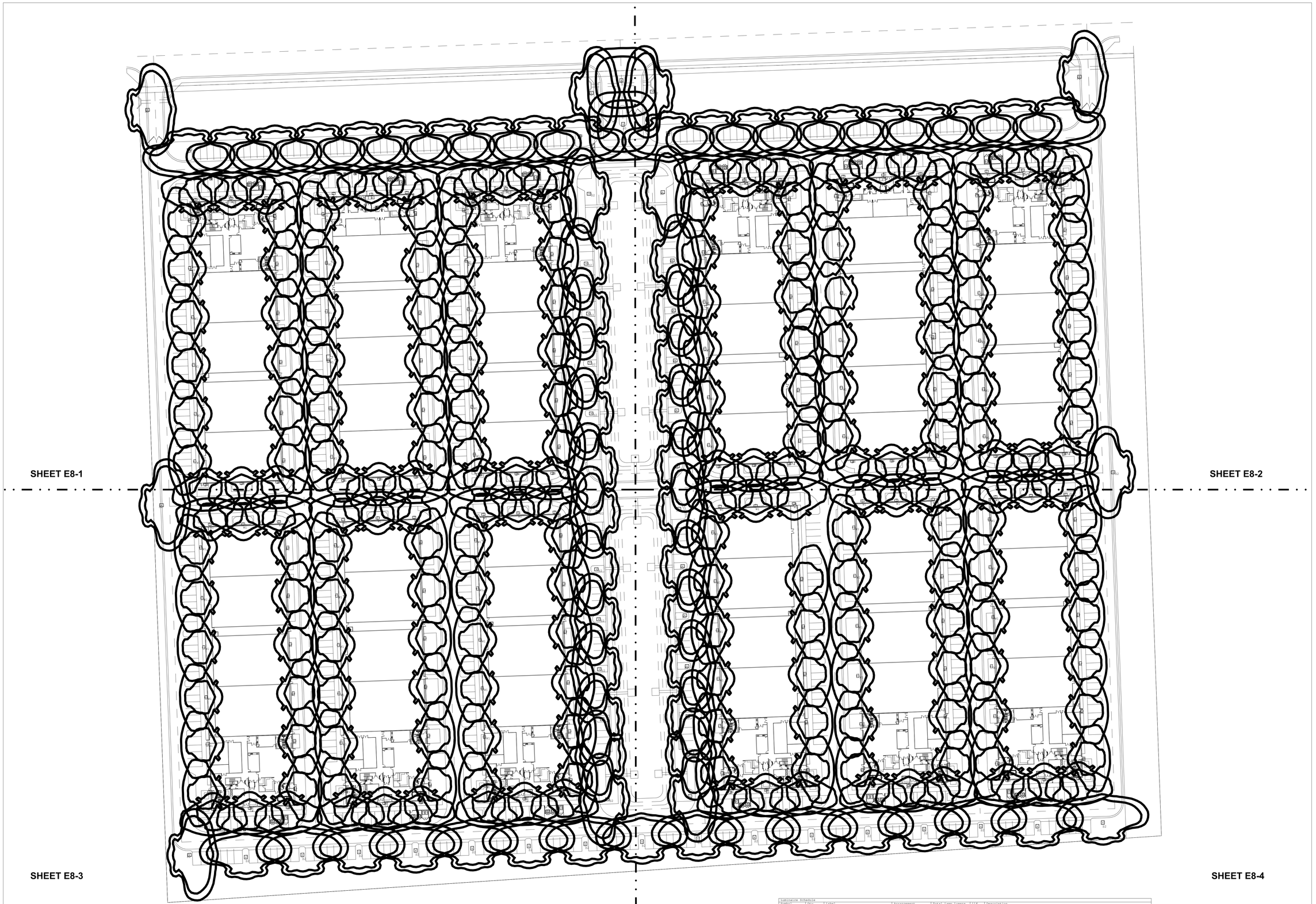
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REVISIONS

DATE:	NOTES:

PROJECT TITLE:
ELECTRICAL:
TITLE

SHEET:
E0.1



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	214	type_w1_lea_VNTW-115001-70K-CO	SINGLE	N.A.	1.000	VNTW-115001-70K-CO4-3W-B2
	2	type_w1_lea_VNTLED4G22005N8D3	SINGLE	N.A.	1.000	VNTLED4G22005N8D3M5S20XXB3HO
	69	type_w1_lea_dirt_w_med	SINGLE	N.A.	1.000	VNTLED4G22030N8D1M5S20XXXHO

ELECTRICAL SITE PLAN

SCALE: 3/64" = 1'-0"

NORTH

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CA LIC. #462222

DESIGNER

PROJECT

ESF BLYTHE
11625 W HIGHWAY 60
BLYTHE, CA 92225

ENGINEER NOTES

ENGINEER STAMP

REVISIONS

DATE:	NOTES:

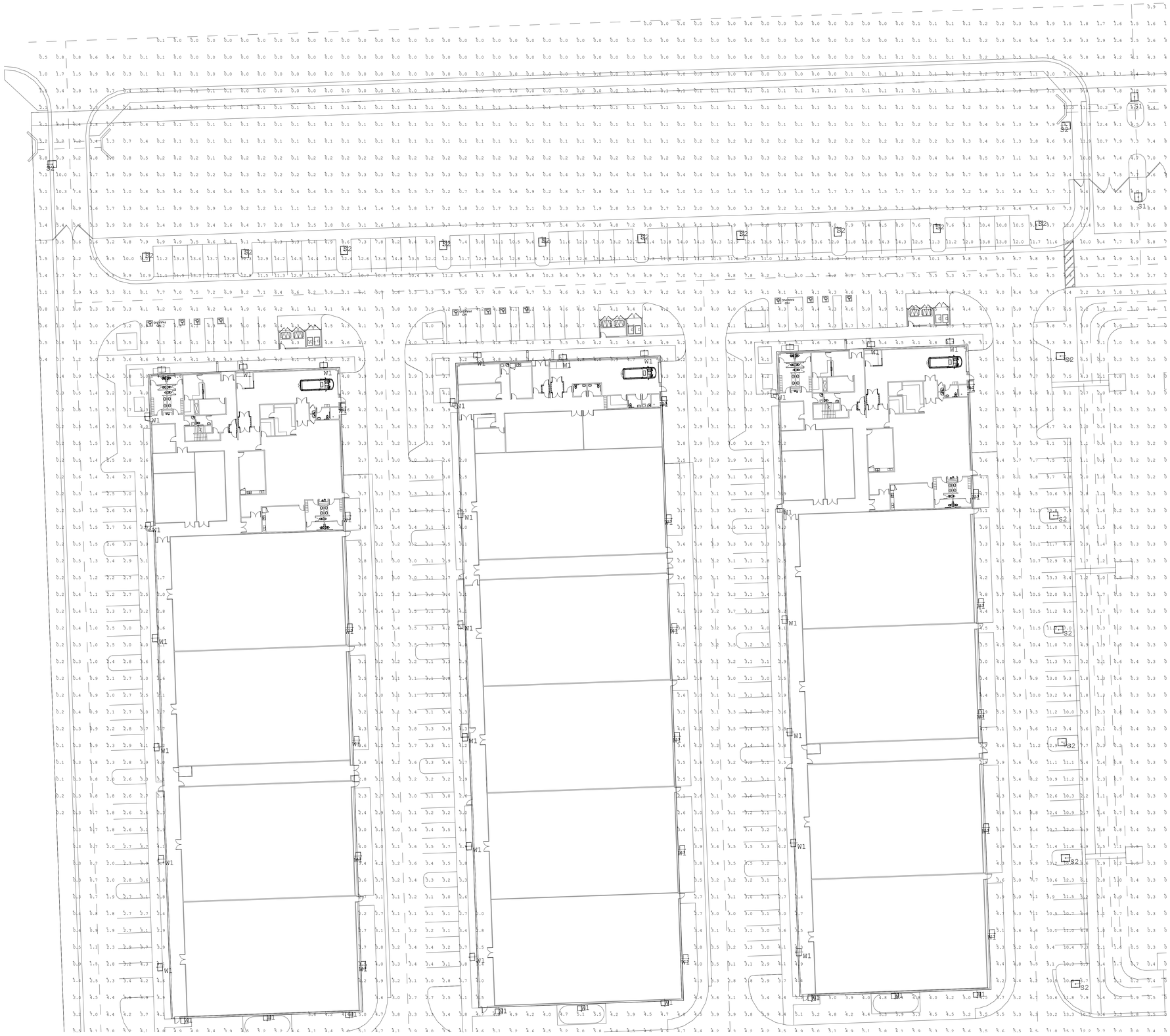
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ELECTRICAL:

SITE PHOTMETRIC

SHEET:

E8-0



ELECTRICAL SITE PLAN

SCALE: NOT TO SCALE

NORTH

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BLYTHE,CA 92225

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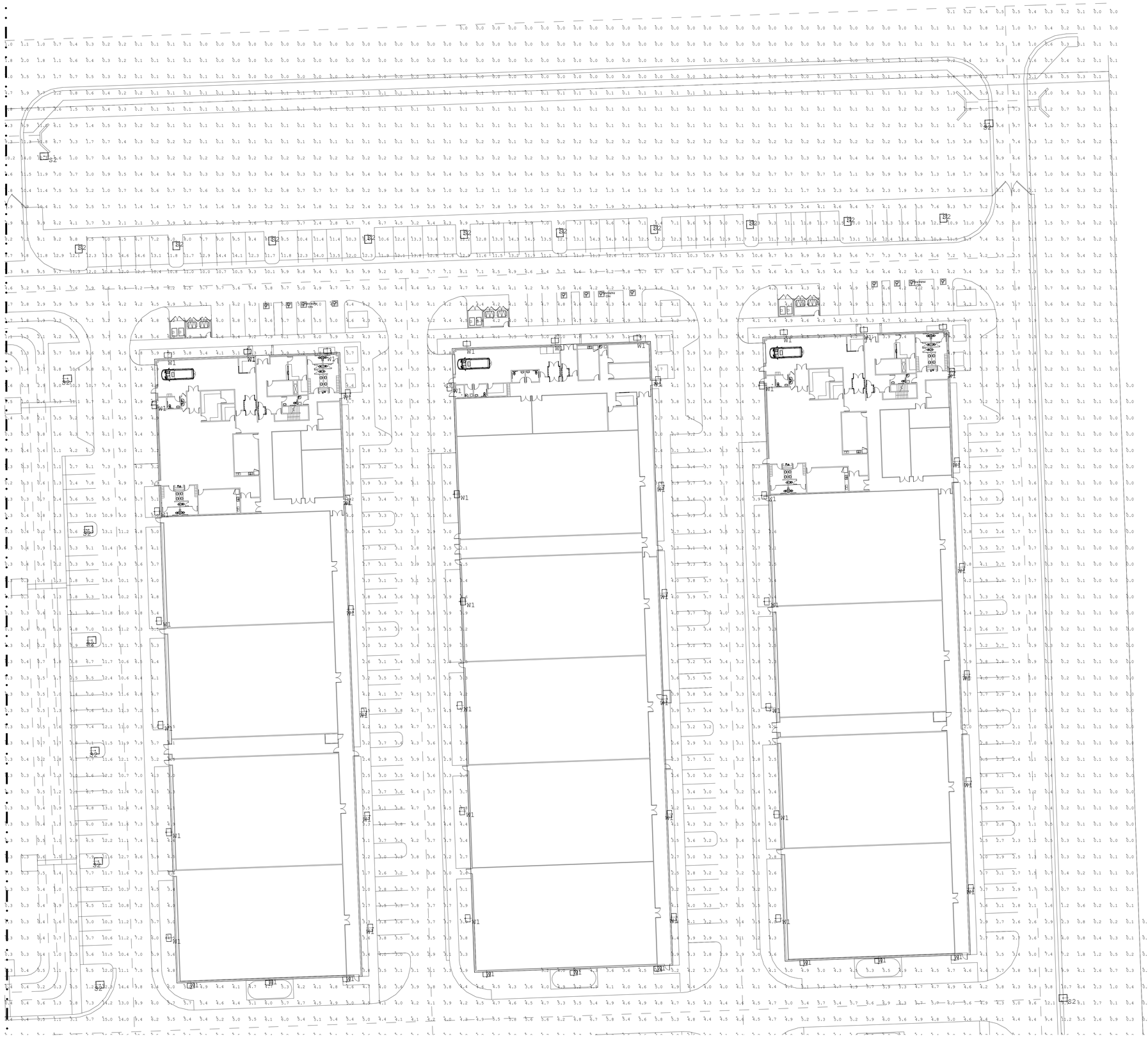
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ELECTRICAL:

N/W
SITE PHOTOMETRIC

SHEET:

E8-1



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	216	type_w1_lex_VNTW-110001-50K-D	SINGLE	N.A.	1.000	VNTW-110001-50K-D3M-3M-BS
	2	type_s1_lex_VNTLED0022025MSO1	SINGLE	N.A.	1.000	VNTLED0022025MSO1MSO2XXXXSSBO
	69	type_s1_lex_dist_2_med	SINGLE	N.A.	1.000	VNTLED0022032MSO1MSO2XXXXMD

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	Fc	3.62	16.2	0.0	N.A.	N.A.

ELECTRICAL SITE PLAN

SCALE: NOT TO SCALE

NORTH

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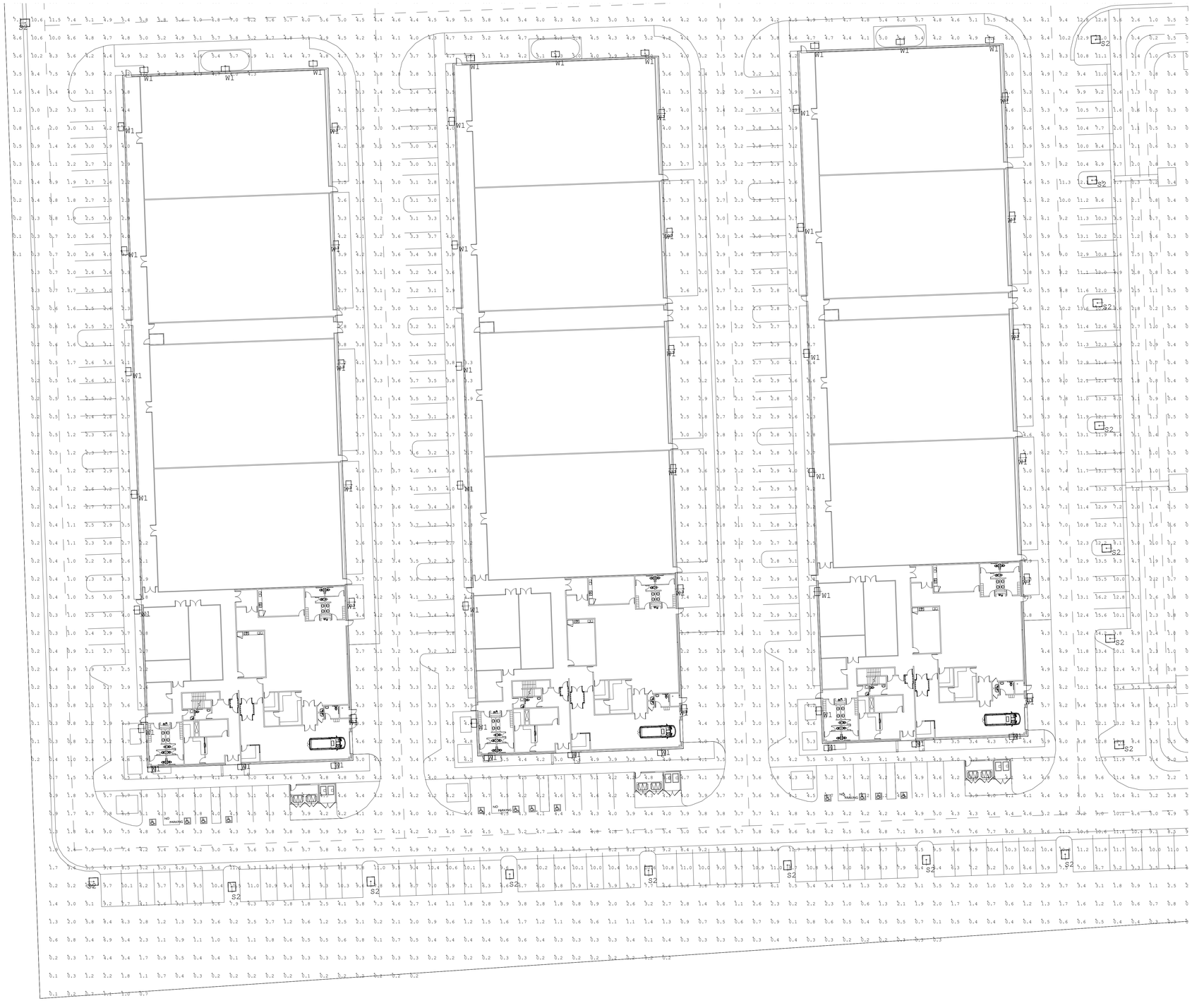
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ELECTRICAL:

N/E
SITE PHOTOMETRIC

SHEET:

E8-2



Luminaire Schedule						
Symbol	Qty	Label	Arrangement	Total Lamp Lumens	LLF	Description
	215	type_s1_ies_VSTW-11000i-50K-D	SINGLE	N.A.	1.000	VSTW-11000i-50K-DIM-3H-BS
	2	type_s1_ies_VSTLED#022D5WHDIM3Z00XBSRO	SINGLE	N.A.	1.000	VSTLED#022D5WHDIM3Z00XBSRO
	69	type_s1_ies_disk_2_mod	SINGLE	N.A.	1.000	VSTLED#022D2WHDIM3Z00XXXMO

Calculation Summary							
Label	CalcType	Units	Avg	Max	Min	Avg/Min	Max/Min
PARKING	Illuminance	FC	3.63	16.3	0.0	N.A.	N.A.

ELECTRICAL SITE PLAN

SCALE: NOT TO SCALE

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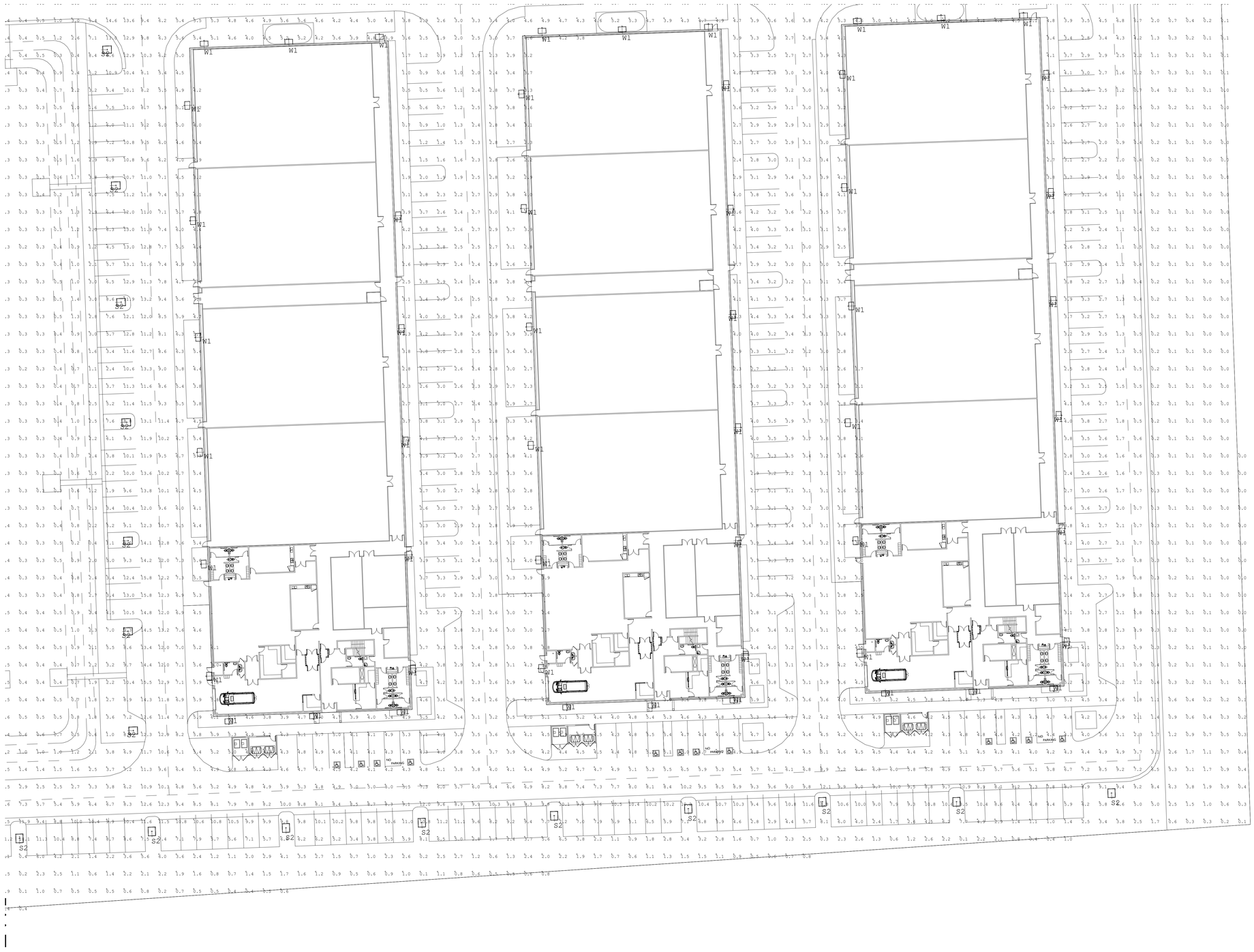
PROJECT TITLE:

ELECTRICAL:

S/E
SITE PHOTOMETRIC

SHEET:

E8-3



ELECTRICAL SITE PLAN

SCALE: NOT TO SCALE

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PROJECT

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ENGINEER NOTES

ENGINEER STAMP

REVISIONS

DATE:	NOTES:

PROJECT TITLE:

ELECTRICAL:

S/W
SITE PHOTOMETRIC

SHEET:

E8-4

PROJECT INFORMATION

ESF Blyth Project Name	S1 Type
02-200-3M-N-DIM-5-X-X-BZ	Date

VIENTO AREA SITE LED MEDIUM LUMINAIRE

VNT LED MEDIUM



APPLICATIONS
- Auto Dealership Sales Lots
- Parking Lots
- Educational/Business Campuses
- Parks & Recreation Areas
- Security Areas
- Mall & Retail Spaces

APPROVALS
- ETL listed.
- Complies with UL 1598 and CSA C22.2#250.0.0:2008
- Suitable for wet locations.
- 3G Vibration Rated for Bridge/Overpass Applications per ANSI C136.31-2010, Test Level 2.
- IP66 Optics and Housing.
- BAA Compliant.
- RoHS Compliant.
- Appropriate parts/test guidelines were performed by ATAL. www.ata-labs.com
- Select models DLC Qualified. For a complete list of DLC Qualified products, please visit: www.xtralight.com/dlc or www.designlights.org/qpl

FEATURES
- Outstanding photometric performance results in sites with excellent uniformity, optimal pole spacing and lower power density.
- Optics are completely sealed against moisture and environmental contaminants (IP66).
- Low profile architectural design offers a contemporary appearance with excellent light output.
- Controls ready luminaire for independent operation or remote management.
- Zero uplight (U0) is night sky friendly, reduces wasted light.
- Operating temperature: -40°C to +50°C (-40°F to +122°F)
- Custom colors available

CONSTRUCTION
- Housing: One-piece die-cast aluminum has integral heat sink fins to optimize thermal management through conductive and convective cooling.
- The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life.
- Housing and door are protected with a thermoset TGIC-polyester powder coat finish using a tightly controlled multi-stage process to a uniform 3 mil thickness (min). This finish provides superior protection from corrosion and maximum environmental durability.
- Powder coat finish in bronze, white or custom colors (consult factory).

MOUNTING
- Integral arm with key hole slot facilitates quick and easy installation.
- Nut plate eliminates loose hardware in the pole and reduces installation labor.

OPTICS
- Precision molded optics for superior uniformity, minimal light trespass and maximum pole spacing.
- Optical grade polymer is UV stabilized and impact resistant.
- Distributions: Type II, Type III, Type IV and Type V. Types II, III, and IV available rotated right or left 90°, factory installed.
- Best in class LEDs with 3000K, 4000K and 5000K CCT (min 70 CRI).
- Lumen Maintenance: >100,000hrs L70 @ 25°C (see page 3 for details).

ELECTRICAL
- Voltage: 120-277V 50/60Hz driver (standard); 347-480V 50/60Hz driver (optional).
- Class 2 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate.
- Surge Protection: 20kA standard.
- NEMA twist-lock receptacle available as an option.
- NOTE: Photocontrol or shorting cap required for operation (not included).
- Dimming: 0-10v dimmable driver available as an option.
- Passive Infrared (PIR) Photo/Motion Sensor option available.

WARRANTY
- Backed by XtraLight's industry leading 10-year warranty.

VNT LED MEDIUM
2014.10

All information is believed to be accurate at the time of publication. **Please contact customer service or visit www.XLM.com for the most updated product specifications.** XtraLight® reserves the right to change specifications without notice.

PROJECT INFORMATION

ESF Blyth Project Name	w1 Type
11000L-50K-DIM-3M-BZ Catalog #	6/30/21 Date

VIENTO LED WALL PACK

VNTW LED



APPLICATIONS
- Building Facades
- Entry Ways
- Sidewalks
- Security Lighting
- Accent Lighting
- General Exterior Lighting

APPROVALS
- ETL listed. Complies with UL1598 and CSA C22.2#250.0.0:2008
- Suitable for Wet Locations.
- IP66 rated
- BAA Compliant
- RoHS Compliant
- Select models DLC Qualified. For a complete list of DLC Qualified products, please visit: http://www.xtralight.com/dlc or www.designlights.org/qpl
- Appropriate parts/test guidelines were performed by ATAL www.ata-labs.com

FEATURES
- Uniform light distribution, ideal for building facades, entry ways, sidewalks and general security or accent lighting.
- LED provides a significant energy savings over HID.
- Custom colors are available (consult factory).
- Designed for ease of installation.
- Operating temperature: -40°C to +50°C (-40°F to +122°F)

OPTICS
- Optical grade polymer is UV stabilized and impact resistant.
- IP66 rated LED light engines prevent dust and moisture from degrading performance.
- Distributions: Type II Short, Type II Medium, Type III Medium and Type IV Short.
- Best in class LEDs with 3000K (min 80 CRI), 4000K, and 5000K CCT (min 70 CRI).
- Lumen Maintenance: >100,000hrs L70 @ 25°C.
- Precision molded optics for superior uniformity, minimal light trespass and maximum spacing.
- Zero uplight (U0) is night sky friendly, reduces wasted light.

WARRANTY
- Backed by XtraLight's industry leading 10-year warranty.

CONSTRUCTION
- Housing: Two-piece die-cast aluminum has integral heat sink fins to optimize thermal management through conductive and convective cooling.
- Housing and back box are protected with a thermoset TGIC-polyester powder coat finish.
- The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life.
- Silicone gasket is included to prevent leakage and provide weather-tight protection.
- All fasteners are stainless steel.

ELECTRICAL
- Voltage: 120-277V 50/60Hz driver (standard);
- 480: 347-480V 50/60Hz driver with (optional).
- Class 2 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate.
- Dimming: 0-10v dimmable driver standard.
- Passive Infrared (PIR) Photo/Motion Sensor optional.
- Emergency battery backup option (EM) is available for some models; CEM suited for cold weather, has external test button and LED indicator light to notify when the heater is on.

ORDER LOGIC

SAMPLE CATALOG NUMBER: VNTW-8000L-40K-DIM-2M-BZ

VNTW	-	11000	-	50k	-	DIM	-	3M	-	BZ	-	

MODEL	CCT	DRIVER	OPTICS	FINISH	CONTROLS & OPTIONS
3500L	**30K** 3000K	**DIM** Dimmable 120-277V	**2S** Type II Short	**WH** White	**EM** [1] Emergency Battery Back-Up
5500L	**40K** 4000K	**480** Dimmable 347-480V	**2M** Type II Medium	**BZ** Bronze	**CEM** [2] Cold Weather Emergency Battery Back-Up
8000L	**50K** 5000K		**3M** Type III Medium		**FSP2** Programmable Occupancy Sensor, 8'H/40'D
11000L			**4S** Type IV Short		**FSP3** Programmable Occupancy Sensor, 20'H/40'D
					PC Photocell, Button, 120-277V
					GTD Generator Transfer Device

1. EM not available with 11000L. Maximum operating temperature with EM for 3500L (40°C/104°F), 5500L (35°C/95°F), 8000L (30°C/86°F).
2. Minimum temperature for EM (0°C/32°F).
3. Minimum temperature for CEM (-20°C/-4°F).

VNTW LED
2120.04

All information is believed to be accurate at the time of publication. **Please contact customer service or visit www.XLM.com for the most updated product specifications.** XtraLight® reserves the right to change specifications without notice.

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BLYTHE, CA 92225

ENGINEER NOTES

ENGINEER STAMP

REVISIONS

DATE:	NOTES:

PROJECT TITLE:

ELECTRICAL:

FIXTURE CUT SHEETS

SHEET:

E8-5

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix C

Air Quality Impact Analysis

May 2022

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Edelweiss Sustainable Farms Project

AIR QUALITY IMPACT ANALYSIS

CITY OF BLYTHE

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APRIL 29, 2022

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LIST OF ABBREVIATED TERMS

(1)	Reference
%	Percent
1992 CO Plan	1992 Federal Attainment Plan for Carbon Monoxide
µg/m^3	Microgram per Cubic Meter
AB 2595	California Clean Air Act
AQIA	Air Quality Impact Analysis
AQMIS	Air Quality and Meteorological Information System
AQMP	Air Quality Management Plan
BAAQMD	Bay Area Air Quality Management District
BACM	Best Available Control Measures
BMPs	Best Management Practices
BSC	Building Standards Commission
CAA	Federal Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model™
CALGreen	California Green Building Standards Code
CalEPA	California Environmental Protection Agency
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CEC	California Energy Commission
CEQA	California Environmental Quality Act
City	City of Blythe
CO	Carbon Monoxide
COHb	Carboxyhemoglobin
EPA	Environmental Protection Agency
g/L	Grams Per Liter
GHG	Greenhouse Gas
HRA	Health Risk Assessment
I-10	Interstate 10
lbs/day	Pounds per Day
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MWELO	Model Water Efficient Landscape Ordinance
NAAQS	National Ambient Air Quality Standards
N_2	Nitrogen
NO	Nitric Oxide

N_2O	Nitrous Oxide
NO_2	Nitrogen Dioxide
NO_X	Nitrogen Oxides
O_2	Oxygen
O_3	Ozone
Pb	Lead
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
ppm	Parts Per Million
Project	Edelweiss Sustainable Farms Project
ROG	Reactive Organic Gases
RECLAIM	Regional Clean Air Incentives Market
SDAB	Southeast Desert Air Basin
SCAQMD	South Coast Air Quality Management District
sf	Square Feet
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
SO_4	Sulfates
SO_X	Oxides of Sulfur
TAC	Toxic Air Contaminant
TA	*Edelweiss Sustainable Farms Project Traffic Study*
TSF	Thousand Square Feet
VOC	Volatile Organic Compound
VPH	Vehicles Per Hour

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Edelweiss Sustainable Farms Project Air Quality Impact Analysis* (AQIA) are summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the *California Environmental Quality Act (CEQA) Guidelines* (1). Table ES-1 shows the findings of less than significant for each potential air quality impact under CEQA. As shown, no mitigation measures (MM) are required.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Regional Construction Emissions	3.4	*Less Than Significant*	*n/a*
Regional Operational Emissions	3.5	*Less Than Significant*	*n/a*
CO "Hot Spot" Analysis	3.6	*Less Than Significant*	*n/a*
Air Quality Management Plan	3.7	*Less Than Significant*	*n/a*
Sensitive Receptors	3.8	*Less Than Significant*	*n/a*
Odors	3.9	*Less Than Significant*	*n/a*
Cumulative Impacts	3.10	*Less Than Significant*	*n/a*

ES.2 STANDARD REGULATORY REQUIREMENTS/BEST AVAILABLE CONTROL MEASURES

Measures listed below (or equivalent language) shall appear on all Project grading plans, construction specifications and bid documents, and the City shall ensure such language is incorporated prior to issuance of any development permits. Mojave Desert Air Quality Management District (MDAQMD) Rules that are currently applicable during construction activity for this Project include but are not limited to Rule 1113 (Architectural Coatings) (2). It should be noted that these Best Available Control Measures (BACMs) are not mitigation as they are standard regulatory requirements. As such, credit for Rule 1113 has been taken.

MDAQMD RULE 1113

This rule serves to limit the Volatile Organic Compound (VOC) content of architectural coatings used on projects in the MDAQMD. Any person who supplies, sells, offers for sale, or manufactures

any architectural coating for use on projects in the MDAQMD must comply with the current VOC standards set in this rule (2)[1].

ES.3 CONSTRUCTION-SOURCE MMS

The Project would not exceed any thresholds of significance for construction-source emissions. As such, a less than significant impact would occur for Project-related construction-source emissions and no mitigation would be required.

ES.4 OPERATIONAL-SOURCE MMS

The Project would not exceed any thresholds of significance for operational-source emissions. As such, a less than significant impact would occur for Project-related operational-source emissions and no mitigation would be required.

[1] Only paints with no more than 50 g/L of VOC consistent with MDAQMD Rule 1113 for flat coatings shall be used.

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1 INTRODUCTION

This report presents the results of the AQIA prepared by Urban Crossroads, Inc., for the proposed Edelweiss Sustainable Farms Project (Project).

The purpose of this AQIA is to evaluate the potential impacts to air quality associated with construction and operation of the proposed Project in comparison to thresholds established by the MDAQMD.

1.1 SITE LOCATION

The proposed project is located south of Hobsonway and east of Defrain Boulevard in the City of Blythe, as shown on Exhibit 1-A. The I-10 Freeway and agricultural uses are located to the south, with agricultural uses also located to the north and west of the Project site. To the east of the Project site is vacant land as well as commercial and retail uses. The Project site is currently vacant. The City of Blythe General Plan designates the Project site for General Commercial uses.

1.2 PROJECT DESCRIPTION

The proposed Project consists of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. Approximately 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration office building uses. The Project is anticipated to open in 2023.

This air study is intended to describe air quality impacts associated with the expected typical operational activities at the Project site. To present a conservative approach, this report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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2 AIR QUALITY SETTING

This section provides an overview of the existing air quality conditions in the Project area and region.

2.1 MOJAVE DESERT AIR BASIN

The Project site is located in the portion of the County of San Bernardino, California, that is part of the Mojave Desert Air Basin (MDAB) and is under the jurisdiction of the MDAQMD. The air quality assessment for the proposed Project includes estimating emissions associated with short-term construction and long-term operation of the proposed Project. A number of air quality modeling tools are available to assess the air quality impacts of projects. In addition, certain air districts, such as the MDAQMD, have created guidelines and requirements to conduct air quality analyses. The MDAQMD's current guidelines, included in its *California Environmental Quality Act and Federal Conformity Guidelines* (August 2016), were adhered to in the assessment of air quality impacts for the proposed Project.

2.2 REGIONAL CLIMATE

Air quality in the Project area is not only affected by various emissions sources (mobile, industry, etc.) but is also affected by atmospheric conditions such as wind speed, wind direction, temperature, and rainfall.

The MDAB is an assemblage of mountain ranges interspersed with long broad valleys that often contain dry lakes. Many of the lower mountains within the vast terrain rise from 1,000 to 4,000 feet above the valley floor. Prevailing winds in the MDAB are out of the west and southwest. These prevailing winds are due to the proximity of the MDAB to coastal and central regions and the blocking nature of the Sierra Nevada Mountains to the north; air masses pushed onshore in Southern California by differential heating are channeled through the MDAB. The MDAB is separated from the Southern California coastal and Central California valley regions by mountains (highest elevation is approximately 10,000 feet), whose passes form the main channels for these air masses. The Mojave Desert is bordered on the southwest by the San Bernardino Mountains, separated from the San Gabriel Mountains by the Cajon Pass (4,200 feet). A lesser pass lies between the San Bernardino Mountains and the Little San Bernardino Mountains in the Morongo Valley. The Palo Verde Valley portion of the Mojave Desert lies in the low desert, at the eastern end of a series of valleys (notably the Coachella Valley), whose primary channel is the San Gorgonio Pass (2,300 feet) between the San Bernardino and San Jacinto Mountains.

During the summer, the MDAB is generally influenced by a Pacific subtropical high cell that sits off the coast, inhibiting cloud formation and encouraging daytime solar heating. The MDAB is rarely influenced by cold air masses moving south from Canada and Alaska, as these frontal systems are weak and diffuse by the time they reach the desert. Most desert moisture arrives from infrequent warm, moist, and unstable air masses from the south. The MDAB averages between three and seven inches of precipitation per year (from 16 to 30 days with at least 0.01 inch of precipitation). The MDAB is classified as a dry-hot desert climate, with portions classified

as dry-very hot desert, to indicate that at least three months have maximum average temperatures over 100.4° F.

Snow is common above 5,000 feet in elevation, resulting in moderate snowpack and limited spring runoff. Below 5,000 feet, any precipitation normally occurs as rainfall. Pacific storm fronts normally move into the area from the west, driven by prevailing winds from the west and southwest. During late summer, moist high-pressure systems from the Pacific collide with rising heated air from desert areas, resulting in brief, high-intensity thunderstorms that can cause high winds and localized flash flooding.

2.3 CRITERIA POLLUTANTS

Criteria pollutants are pollutants that are regulated through the development of human health based and/or environmentally based criteria for setting permissible levels. Criteria pollutants, their typical sources, and health effects are identified below (3):

TABLE 2-1: CRITERIA POLLUTANTS

Criteria Pollutant	Description	Sources	Health Effects
Carbon Monoxide (CO)	CO is a colorless, odorless gas produced by the incomplete combustion of carbon-containing fuels, such as gasoline or wood. CO concentrations tend to be the highest during the winter morning, when little to no wind and surface-based inversions trap the pollutant at ground levels. Because CO is emitted directly from internal combustion engines, unlike ozone (O_3), motor vehicles operating at slow speeds are the primary source of CO in the MDAB. The highest ambient CO concentrations are generally found near congested transportation corridors and intersections.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Individuals with a deficient blood supply to the heart are the most susceptible to the adverse effects of CO exposure. The effects observed include earlier onset of chest pain with exercise, and electrocardiograph changes indicative of decreased oxygen supply to the heart. Inhaled CO has no direct toxic effect on the lungs but exerts its effect on tissues by interfering with oxygen transport and competing with oxygen to combine with hemoglobin present in the blood to form carboxyhemoglobin (COHb). Hence, conditions with an increased demand for oxygen supply can be adversely affected by exposure to CO. Individuals most at risk include fetuses, patients with diseases involving heart and blood vessels, and patients with chronic hypoxemia

Criteria Pollutant	Description	Sources	Health Effects
			(oxygen deficiency) as seen at high altitudes.
Sulfur Dioxide (SO_2)	SO_2 is a colorless, extremely irritating gas or liquid. It enters the atmosphere as a pollutant mainly as a result of burning high sulfur-content fuel oils and coal and from chemical processes occurring at chemical plants and refineries. When SO_2 oxidizes in the atmosphere, it forms sulfates (SO_4). Collectively, these pollutants are referred to as sulfur oxides (SO_X)	Coal or oil burning power plants and industries, refineries, diesel engines	A few minutes of exposure to low levels of SO_2 can result in airway constriction in some asthmatics, all of whom are sensitive to its effects. In asthmatics, increase in resistance to air flow, as well as reduction in breathing capacity leading to severe breathing difficulties, are observed after acute exposure to SO_2. In contrast, healthy individuals do not exhibit similar acute responses even after exposure to higher concentrations of SO_2. Animal studies suggest that despite SO_2 being a respiratory irritant, it does not cause substantial lung injury at ambient concentrations. However, very high levels of exposure can cause lung edema (fluid accumulation), lung tissue damage, and sloughing off of cells lining the respiratory tract. Some population-based studies indicate that the mortality and morbidity effects associated with fine particles show a similar association with ambient SO_2 levels. In these studies, efforts to separate the effects of SO_2 from those of fine particles have not been successful. It is not clear whether the two pollutants act synergistically, or one pollutant alone is the predominant factor.

Criteria Pollutant	Description	Sources	Health Effects
NO_X	NO_X consist of nitric oxide (NO), nitrogen dioxide (NO_2) and nitrous oxide (N_2O) and are formed when nitrogen (N_2) combines with oxygen (O_2). Their lifespan in the atmosphere ranges from one to seven days for nitric oxide and nitrogen dioxide, to 170 years for nitrous oxide. Nitrogen oxides are typically created during combustion processes and are major contributors to smog formation and acid deposition. NO_2 is a criteria air pollutant and may result in numerous adverse health effects; it absorbs blue light, resulting in a brownish-red cast to the atmosphere and reduced visibility. Of the seven types of nitrogen oxide compounds, NO_2 is the most abundant in the atmosphere. As ambient concentrations of NO_2 are related to traffic density, commuters in heavy traffic may be exposed to higher concentrations of NO_2 than those indicated by regional monitoring station.	Any source that burns fuel such as automobiles, trucks, heavy construction equipment, farming equipment and residential heating.	Population-based studies suggest that an increase in acute respiratory illness, including infections and respiratory symptoms in children (not infants), is associated with long-term exposure to NO_2 at levels found in homes with gas stoves, which are higher than ambient levels found in Southern California. Increase in resistance to air flow and airway contraction is observed after short-term exposure to NO_2 in healthy subjects. Larger decreases in lung functions are observed in individuals with asthma or chronic obstructive pulmonary disease (e.g., chronic bronchitis, emphysema) than in healthy individuals, indicating a greater susceptibility of these sub-groups. In animals, exposure to levels of NO_2 considerably higher than ambient concentrations result in increased susceptibility to infections, possibly due to the observed changes in cells involved in maintaining immune functions. The severity of lung tissue damage associated with high levels of O_3 exposure increases when animals are exposed to a combination of O_3 and NO_2.
O_3	O_3 is a highly reactive and unstable gas that is formed when VOCs and NO_X, both byproducts of internal combustion engine exhaust, undergo slow photochemical reactions in the presence of sunlight. O_3 concentrations are generally highest during the summer	Formed when reactive organic gases (ROG) and nitrogen oxides react in the presence of sunlight. ROG sources include any source	Individuals exercising outdoors, children, and people with preexisting lung disease, such as asthma and chronic pulmonary lung disease, are considered to be the most susceptible sub-groups for O_3 effects. Short-term exposure (lasting for a

Criteria Pollutant	Description	Sources	Health Effects
	months when direct sunlight, light wind, and warm temperature conditions are favorable to the formation of this pollutant.	that burns fuels, (e.g., gasoline, natural gas, wood, oil) solvents, petroleum processing and storage and pesticides.	few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes. Elevated O_3 levels are associated with increased school absences. In recent years, a correlation between elevated ambient O_3 levels and increases in daily hospital admission rates, as well as mortality, has also been reported. An increased risk for asthma has been found in children who participate in multiple outdoor sports and live in communities with high O_3 levels. O_3 exposure under exercising conditions is known to increase the severity of the responses described above. Animal studies suggest that exposure to a combination of pollutants that includes O_3 may be more toxic than exposure to O_3 alone. Although lung volume and resistance changes observed after a single exposure diminish with repeated exposures, biochemical and cellular changes appear to persist, which can lead to subsequent lung structural changes.
Particulate Matter	PM_{10} (Particulate Matter less than 10 microns): A major air pollutant consisting of tiny solid or liquid particles of soot, dust, smoke, fumes, and aerosols. Particulate matter pollution is a major cause of reduce visibility	Sources of PM_{10} include road dust, windblown dust and construction. Also formed from other pollutants (acid rain, NO_X, SO_X,	A consistent correlation between elevated ambient fine particulate matter (PM_{10} and $PM_{2.5}$) levels and an increase in mortality rates, respiratory infections, number and severity of

Criteria Pollutant	Description	Sources	Health Effects
	(haze) which is caused by the scattering of light and consequently the significant reduction air clarity. The size of the particles (10 microns or smaller, about 0.0004 inches or less) allows them to easily enter the lungs where they may be deposited, resulting in adverse health effects. Additionally, it should be noted that PM_{10} is considered a criteria air pollutant. $PM_{2.5}$ (Particulate Matter less than 2.5 microns): A similar air pollutant to PM_{10} consisting of tiny solid or liquid particles which are 2.5 microns or smaller (which is often referred to as fine particles). These particles are formed in the atmosphere from primary gaseous emissions that include sulfates formed from SO_2 release from power plants and industrial facilities and nitrates that are formed from NO_X release from power plants, automobiles and other types of combustion sources. The chemical composition of fine particles highly depends on location, time of year, and weather conditions. $PM_{2.5}$ is a criteria air pollutant.	organics). Incomplete combustion of any fuel. $PM_{2.5}$ comes from fuel combustion in motor vehicles, equipment and industrial sources, residential and agricultural burning. Also formed from reaction of other pollutants (acid rain, NO_X, SO_X, organics).	asthma attacks and the number of hospital admissions has been observed in different parts of the United States and various areas around the world. In recent years, some studies have reported an association between long-term exposure to air pollution dominated by fine particles and increased mortality, reduction in lifespan, and an increased mortality from lung cancer. Daily fluctuations in $PM_{2.5}$ concentration levels have also been related to hospital admissions for acute respiratory conditions in children, to school and kindergarten absences, to a decrease in respiratory lung volumes in normal children, and to increased medication use in children and adults with asthma. Recent studies show lung function growth in children is reduced with long term exposure to particulate matter. The elderly, people with pre-existing respiratory or cardiovascular disease, and children appear to be more susceptible to the effects of high levels of PM_{10} and $PM_{2.5}$.
Volatile Organic Compounds (VOC)	VOCs are hydrocarbon compounds (any compound containing various combinations of hydrogen and carbon atoms) that exist in the ambient air. VOCs contribute to the formation of smog through atmospheric photochemical reactions and/or may be toxic. Compounds of carbon (also known as organic compounds) have different levels of reactivity; that is, they do not react at the same speed or do not	Organic chemicals are widely used as ingredients in household products. Paints, varnishes and wax all contain organic solvents, as do many cleaning, disinfecting, cosmetic, degreasing and hobby products.	Breathing VOCs can irritate the eyes, nose and throat, can cause difficulty breathing and nausea, and can damage the central nervous system as well as other organs. Some VOCs can cause cancer. Not all VOCs have all these health effects, though many have several.

Criteria Pollutant	Description	Sources	Health Effects
	form O_3 to the same extent when exposed to photochemical processes. VOCs often have an odor, and some examples include gasoline, alcohol, and the solvents used in paints. Exceptions to the VOC designation include carbon monoxide, carbon dioxide, carbonic acid, metallic carbides or carbonates, and ammonium carbonate. VOCs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms VOC and ROG (see below) interchangeably.	Fuels are made up of organic chemicals. All of these products can release organic compounds while you are using them, and, to some degree, when they are stored.	
Reactive Organic Gases (ROG)	Similar to VOC, ROGs are also precursors in forming O_3 and consist of compounds containing methane, ethane, propane, butane, and longer chain hydrocarbons, which are typically the result of some type of combustion/decomposition process. Smog is formed when ROG and nitrogen oxides react in the presence of sunlight. ROGs are a criteria pollutant since they are a precursor to O_3, which is a criteria pollutant. The terms ROG and VOC (see previous) interchangeably.	Sources similar to VOCs.	Health effects similar to VOCs.
Lead (Pb)	Lead is a heavy metal that is highly persistent in the environment and is considered a criteria pollutant. In the past, the primary source of lead in the air was emissions from vehicles burning leaded gasoline. The major sources of lead emissions are ore and metals processing, particularly lead smelters, and piston-engine aircraft operating on leaded aviation gasoline. Other stationary sources include waste incinerators, utilities, and lead-acid battery manufacturers. It should be noted that the	Metal smelters, resource recovery, leaded gasoline, deterioration of lead paint.	Fetuses, infants, and children are more sensitive than others to the adverse effects of Pb exposure. Exposure to low levels of Pb can adversely affect the development and function of the central nervous system, leading to learning disorders, distractibility, inability to follow simple commands, and lower intelligence quotient. In adults, increased Pb levels are associated with increased blood pressure.

Criteria Pollutant	Description	Sources	Health Effects
	Project does not include operational activities such as metal processing or lead acid battery manufacturing. As such, the Project is not anticipated to generate a quantifiable amount of lead emissions.		Pb poisoning can cause anemia, lethargy, seizures, and death; although it appears that there are no direct effects of Pb on the respiratory system. Pb can be stored in the bone from early age environmental exposure, and elevated blood Pb levels can occur due to breakdown of bone tissue during pregnancy, hyperthyroidism (increased secretion of hormones from the thyroid gland) and osteoporosis (breakdown of bony tissue). Fetuses and breast-fed babies can be exposed to higher levels of Pb because of previous environmental Pb exposure of their mothers.
Odor	Odor means the perception experienced by a person when one or more chemical substances in the air come into contact with the human olfactory nerves.	Odors can come from many sources including animals, human activities, industry, natures, and vehicles.	Offensive odors can potentially affect human health in several ways. First, odorant compounds can irritate the eye, nose, and throat, which can reduce respiratory volume. Second, studies have shown that the VOCs that cause odors can stimulate sensory nerves to cause neurochemical changes that might influence health, for instance, by compromising the immune system. Finally, unpleasant odors can trigger memories or attitudes linked to unpleasant odors, causing cognitive and emotional effects such as stress.

2.4 EXISTING AIR QUALITY

Existing air quality is measured at established MDAQMD air quality monitoring stations. Monitored air quality is evaluated in the context of ambient air quality standards. These standards are the levels of air quality that are considered safe, with an adequate margin of safety, to protect the public health and welfare. National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS) currently in effect are shown in Table 2-2 (4).

The determination of whether a region's air quality is healthful or unhealthful is determined by comparing contaminant levels in ambient air samples to the state and federal standards. At the time of this AQIA, the most recent state and federal standards were updated by CARB on May ,4 2016 and are presented in Table 2-2. The air quality in a region is considered to be in attainment by the state if the measured ambient air pollutant levels for O_3, CO (except 8-hour Lake Tahoe), SO_2 (1 and 24 hour), NO_2, PM_{10}, and $PM_{2.5}$ are not to be exceeded. All others are not to be equaled or exceeded. It should be noted that the three-year period is presented for informational purposes and is not the basis for how the State assigns attainment status. Attainment status for a pollutant means that the Air District meets the standards set by the United State EPA or the California EPA (CalEPA). Conversely, nonattainment means that an area has monitored air quality that does not meet the NAAQS or CAAQS standards. In order to improve air quality in nonattainment areas, a State Implementation Plan (SIP) is drafted. The SIP outlines the measures that the state will take to improve air quality. Once nonattainment areas meet the standards and additional redesignation requirements, the EPA will designate the area as a maintenance area (5).

TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (1 OF 2)

Ambient Air Quality Standards						
Pollutant	**Averaging Time**	**California Standards [1]**		**National Standards [2]**		
		Concentration [3]	**Method [4]**	**Primary [3,5]**	**Secondary [3,6]**	**Method [7]**
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m^3)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m^3)		0.070 ppm (137 µg/m^3)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m^3	Gravimetric or Beta Attenuation	150 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m^3		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m^3	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m^3	Gravimetric or Beta Attenuation	12.0 µg/m^3	15 µg/m^3	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m^3)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m^3)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m^3)	Gas Phase Chemiluminescence	100 ppb (188 µg/m^3)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m^3)		0.053 ppm (100 µg/m^3)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m^3)	
	24 Hour	0.04 ppm (105 µg/m^3)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m^3	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m^3	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m^3)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m^3)	Gas Chromatography			
See footnotes on next page …						

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TABLE 2-2: AMBIENT AIR QUALITY STANDARDS (2 OF 2)

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24 hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24 hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the ARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An "equivalent method" of measurement may be used but must have a "consistent relationship to the reference method" and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The ARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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2.5 REGIONAL AIR QUALITY

Air pollution contributes to a wide variety of adverse health effects. The EPA has established NAAQS for six of the most common air pollutants: O_3, PM_{10}, $PM_{2.5}$, CO, NO_2, SO_2 and Pb which are known as criteria pollutants. The MDAQMD monitors levels of various criteria pollutants at 6 permanent monitoring stations throughout the air district (6). On February 20, 2019, CARB posted the 2018 amendments to the state and national area designations. See Table 2-3 for attainment designations for the MDAB and the Southeast Desert Air Basin (SDAB) (7). Appendix 2.1 provides geographic representation of the state and federal attainment status for applicable criteria pollutants within the MDAB and SDAB.

TABLE 2-3: ATTAINMENT STATUS OF CRITERIA POLLUTANTS IN THE MDAB

Criteria Pollutant	State Designation	Federal Designation
O_3 – 1-hour standard	Nonattainment	--
O_3 – 8-hour standard	Nonattainment	Nonattainment
PM_{10}	Nonattainment	Nonattainment
$PM_{2.5}$	Attainment	Unclassifiable/Attainment
CO	Attainment	Unclassifiable/Attainment
NO_2	Attainment	Unclassifiable/Attainment
SO_2	Unclassifiable/Attainment	Unclassifiable/Attainment
Pb	Attainment	Unclassifiable/Attainment

Note: See Appendix 2.1 for a detailed map of State/National Area Designations within the MDAB and SDAB
"-" = The national 1-hour O_3 standard was revoked effective June 15, 2005.

2.6 LOCAL AIR QUALITY

Relative to the Project site, the nearest long-term air quality monitoring site for O_3 was the Joshua Tree National Park-Pinto Wells monitoring station, located approximately 51 miles northwest of the Project site. The nearest air quality monitoring site for CO was the Calexico-Ethel Street monitoring station, located approximately 81 miles southwest of the Project site. The nearest air monitoring station for NO_2 was the El Centro-9th Street monitoring station, located approximately 78 miles southwest of the Project site. The nearest air monitoring station for PM_{10} and $PM_{2.5}$ was the Niland-English Road monitoring station, located approximately 58 miles southwest of the Project site. The nearest air monitoring station for $PM_{2.5}$ was the Brawley-Main Street #2 monitoring station, located approximately 69 miles southwest of the Project site.

The most recent three (3) years of data available is shown on Table 2-4 and identifies the number of days ambient air quality standards were exceeded for the study area, which is considered to be representative of the local air quality at the Project site. Data for O_3, CO, NO_2, PM_{10}, and $PM_{2.5}$ was obtained using the CARB iADAM: Air Quality and Data Statistics and the Air Quality and Meteorological Information System (AQMIS) (8) (9). Data for SO_2 has been omitted as attainment is regularly met and few monitoring stations measure SO_2 concentrations. It should be noted that the table below is provided for informational purposes.

TABLE 2-4: PROJECT AREA AIR QUALITY MONITORING SUMMARY 2018-2020

Pollutant	Standard	Year		
		2018	2019	2020
O_3				
Maximum Federal 1-Hour Concentration (ppm)		0.091	0.074	0.074
Maximum Federal 8-Hour Concentration (ppm)		0.085	0.068	0.067
Number of Days Exceeding Federal 1-Hour Standard	> 0.09 ppm	1	0	0
Number of Days Exceeding State 1-Hour Standard		0	0	0
Number of Days Exceeding Federal 8-Hour Standard	> 0.070 ppm	18	0	0
Number of Days Exceeding State 8-Hour Standard	> 0.075 ppm	7	0	0
CO				
Maximum Federal 1-Hour Concentration	> 35 ppm	5.692	4.407	4.709
NO_2				
Maximum Federal 1-Hour Concentration	> 0.100 ppm	0.034	0.041	0.045
Maximum State 1-Hour Concentration	> 0.180 ppm	0.034	0.041	0.044
Annual Federal Standard Design Value		--	--	--
Annual State Standard Design Value		50	50	40
Number of Days Exceeding Federal 1-Hour Standard	> 0.100 ppm	0	0	0
Number of Days Exceeding State 1-Hour Standard	> 0.18 ppm	0	0	0
PM_{10}				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 150 $\mu g/m^3$	331.5	155.7	239.8
Annual Federal Arithmetic Mean ($\mu g/m^3$)		47.5	32.1	35.6
Number of Days Exceeding Federal 24-Hour Standard	> 150 $\mu g/m^3$	10	1	1
$PM_{2.5}$				
Maximum Federal 24-Hour Concentration ($\mu g/m^3$)	> 35 $\mu g/m^3$	55.1	28.9	23.7
Maximum State 24-Hour Concentration ($\mu g/m^3$)		55.1	28.9	23.7
Annual Federal Arithmetic Mean ($\mu g/m^3$)	>12 $\mu g/m^3$	10.4	8.3	9.4
Annual State Arithmetic Mean ($\mu g/m^3$)	>12 $\mu g/m^3$	10.4	8.3	9.4
Number of Samples Exceeding Federal 24-Hour Standard	> 35 $\mu g/m^3$	2	0	0

Source: California Air Resource Board iADAM: Air Quality Data Statistics and AQMIS
ppm = Parts Per Million
$\mu g/m^3$ – microgram per cubic meter
-- = data not available

2.7 REGULATORY BACKGROUND

2.7.1 FEDERAL REGULATIONS

The EPA is responsible for setting and enforcing the NAAQS for O_3, CO, NO_X, SO_2, PM_{10}, and Pb (10). The EPA has jurisdiction over emissions sources that are under the authority of the federal government including aircraft, locomotives, and emissions sources outside state waters (Outer

Continental Shelf). The EPA also establishes emission standards for vehicles sold in states other than California. Automobiles sold in California must meet the stricter emission requirements of CARB.

The Federal Clean Air Act (CAA) was first enacted in 1955 and has been amended numerous times in subsequent years (1963, 1965, 1967, 1970, 1977, and 1990). The CAA establishes the federal air quality standards, the NAAQS, and specifies future dates for achieving compliance (11). The CAA also mandates that states submit and implement SIPs for local areas not meeting these standards. These plans must include pollution control measures that demonstrate how the standards will be met.

The 1990 amendments to the CAA that identify specific emission reduction goals for areas not meeting the NAAQS require a demonstration of reasonable further progress toward attainment and incorporate additional sanctions for failure to attain or to meet interim milestones. The sections of the CAA most directly applicable to the development of the Project site include Title I (Non-Attainment Provisions) and Title II (Mobile Source Provisions) (12) (13). Title I provisions were established with the goal of attaining the NAAQS for the following criteria pollutants O_3, NO_2, SO_2, PM_{10}, CO, $PM_{2.5}$, and Pb. The NAAQS were amended in July 1997 to include an additional standard for O_3 and to adopt a NAAQS for $PM_{2.5}$. Table 2-3 (previously presented) provides the NAAQS within the MDAB.

Mobile source emissions are regulated in accordance with Title II provisions. These provisions require the use of cleaner burning gasoline and other cleaner burning fuels such as methanol and natural gas. Automobile manufacturers are also required to reduce tailpipe emissions of hydrocarbons and NO_X. NO_X is a collective term that includes all forms of NO_X which are emitted as byproducts of the combustion process.

2.7.2 CALIFORNIA REGULATIONS

CARB

CARB, which became part of the CalEPA in 1991, is responsible for ensuring implementation of the California Clean Air Act (AB 2595), responding to the federal CAA, and for regulating emissions from consumer products and motor vehicles. AB 2595 mandates achievement of the maximum degree of emissions reductions possible from vehicular and other mobile sources in order to attain the state ambient air quality standards by the earliest practical date. CARB established the CAAQS for all pollutants for which the federal government has NAAQS and, in addition, establishes standards for SO_4, visibility, hydrogen sulfide (H_2S), and vinyl chloride (C_2H_3Cl). However, at this time, H_2S and C_2H_3Cl are not measured at any monitoring stations in the MDAB because they are not considered to be a regional air quality problem. Generally, the CAAQS are more stringent than the NAAQS (14) (10).

Local air quality management districts, such as the MDAQMD, regulate air emissions from stationary sources such as commercial and industrial facilities. All air pollution control districts have been formally designated as attainment or non-attainment for each CAAQS.

Serious non-attainment areas are required to prepare Air Quality Management Plans (AQMP) that include specified emission reduction strategies in an effort to meet clean air goals. These plans are required to include:

- Application of Best Available Retrofit Control Technology to existing sources;
- Developing control programs for area sources (e.g., architectural coatings and solvents) and indirect sources (e.g. motor vehicle use generated by residential and commercial development);
- A District permitting system designed to allow no net increase in emissions from any new or modified permitted sources of emissions;
- Implementing reasonably available transportation control measures and assuring a substantial reduction in growth rate of vehicle trips and miles traveled;
- Significant use of low emissions vehicles by fleet operators;
- Sufficient control strategies to achieve a 5% or more annual reduction in emissions or 15% or more in a period of three years for ROGs, NO_X, CO and PM_{10}. However, air basins may use alternative emission reduction strategy that achieves a reduction of less than 5% per year under certain circumstances.

TITLE 24 ENERGY EFFICIENCY STANDARDS AND CALIFORNIA GREEN BUILDING STANDARDS

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011, and is administered by the California Building Standards Commission. CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that will be effective January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided, they establish a minimum 65% diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The State Building Code provides the minimum standard that buildings must meet in order to be certified for occupancy, which is generally enforced by the local building official.

Energy efficient buildings require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases greenhouse gas (GHG) emissions. The 2019 version of Title 24 was adopted by the California Energy Commission (CEC) and became effective on January 1, 2020.

The 2019 Title 24 standards will result in less energy use, thereby reducing air pollutant emissions associated with energy consumption in the MDAB and across the State of California. For example, the 2019 Title 24 standards will require solar photovoltaic systems for new homes, establish requirements for newly constructed healthcare facilities, encourage demand responsive

technologies for residential buildings, and update indoor and outdoor lighting requirements for nonresidential buildings. The CEC anticipates that single-family homes built with the 2019 standards will use approximately 7% less energy compared to the residential homes built under the 2016 standards. Additionally, after implementation of solar photovoltaic systems, homes built under the 2019 standards will use about 53% less energy than homes built under the 2016 standards. Nonresidential buildings (such as the Project) will use approximately 30% less energy due to lighting upgrade requirements (15).

Because the Project will be constructed after January 1, 2019, the applicable 2019 CALGreen standards presented below in Table 2-5 are required (16).

TABLE 2-5: 2019 CALGREEN STANDARDS

Section Title	Description	Code Section
Short-Term Bicycle Parking	If the new project or an additional alteration is anticipated to generate visitor traffic, provide permanently anchored bicycle racks within 200 feet of the visitors' entrance, readily visible to passers-by, for 5% of new visitor motorized vehicle parking spaces being added, with a minimum of one two-bike capacity rack.	5.106.4.1.1
Long-Term Bicycle Parking	For new buildings with tenant spaces that have 10 or more tenant-occupants, provide secure bicycle parking for 5% of the tenant-occupant vehicular parking spaces with a minimum of one bicycle parking facility.	5.106.4.1.2 through 5.106.4.1.5
Designated Parking for Clean Air Vehicles	In new projects or additions to alterations that add 10 or more vehicular parking spaces, provide designated parking for any combination of low-emitting, fuel-efficient and carpool/van pool vehicles as shown in Table 5.106.5.2.	5.106.5.2
Construction Waste Management	Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 5.408.1.1. 5.405.1.2, or 5.408.1.3; or meet a local construction and demolition waste management ordinance, whichever is more stringent.	5.408.1.1, 5.408.1.2, 5.408.1.3
Excavated Soil and Land Clearing Debris	100% of trees, stumps, rocks and associated vegetation and soils resulting primarily from land clearing shall be reused or recycled. For a phased project, such material may be stockpiled on site until the storage site is developed.	5.408.3
Recycling by Occupants	Provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive.	5.410.1

Section Title	Description	Code Section
Water Closets	The effective flush volume of all water closets shall not exceed 1.28 gallons per flush.	5.303.3.1
Wall-Mounted Urinals	The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush.	5.303.3.2.1
Floor-Mounted Urinals	The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush.	5.303.3.2.2
Single Showerheads	Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi.	5.303.3.3.1
Multiple Showerheads	When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi.	5.303.3.3.2
Nonresidential Lavatory Faucets	Nonresidential lavatory faucets shall have a maximum flow rate of not more than 0.5 gallons per minute at 60 psi.	5.303.3.4.1
Kitchen Faucets	Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi.	5.303.3.4.2
Wash Fountains	Wash fountains shall have a maximum flow rate of not more than 1.8 gallons per minute.	5.303.3.4.3
Metering Faucets	Metering faucets shall not deliver more than 0.20 gallons per cycle.	5.303.3.4.4
Metering Faucets for Wash Fountains	Metering faucets for wash fountains shall have a maximum flow rate not more than 0.20 gallons per cycle.	5.303.3.4.5
Outdoor Potable Water Use in Landscape Areas	Nonresidential developments shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient (MWELO), whichever is more stringent.	5.304.1
Water Meters	Separate submeters or metering devices shall be installed for new buildings or additions in excess of 50,000 sf or for excess consumption where any tenant within a new building or within an addition that is project to consume more than 1,000 gallons per day.	5.303.1.1, 5.303.1.2
Outdoor Water Use in Rehabilitated Landscape Projects ≥ 2,500 sf	Rehabilitated landscape projects with an aggregate landscape area equal to or greater than 2,500 sf requiring a building or landscape permit.	5.304.3

Section Title	Description	Code Section
Commissioning	For new buildings 10,000 sf and over, building commissioning shall be included in the design and construction processes of the building project to verify that the building systems and components meet the owner's or owner representative's project requirements.	5.410.2

2.7.3 AIR QUALITY MANAGEMENT PLANNING

Currently, the NAAQS and CAAQS are exceeded in most parts of the MDAB. The NAAQS, the Project region within the MDAB is in nonattainment for O_3 (8-hour) and PM_{10}. For the CAAQS, the Project region within the MDAB is in nonattainment for O_3 (1-hour and 8-hour) and PM_{10}. In response, the MDAQMD has adopted a series of AQMPs to meet the state and federal ambient air quality standards (17). AQMPs are updated regularly in order to more effectively reduce emissions, accommodate growth, and to minimize any negative fiscal impacts of air pollution control on the economy. A detailed discussion on the AQMP and Project consistency with the AQMP is provided in Section 3.7.

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3 PROJECT AIR QUALITY IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will violate an air quality standard or contribute to an existing or projected air quality violation. Additionally, the Project has been evaluated to determine if it will result in a cumulatively considerable net increase of a criteria pollutant for which the MDAB is non-attainment under an applicable federal or state ambient air quality standard. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related air quality impacts are taken from the Initial Study Checklist in Appendix G of the *State CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to air quality if it would (1):

- Conflict with or obstruct implementation of the applicable air quality plan.
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is in non-attainment under an applicable federal or state ambient air quality standard.
- Expose sensitive receptors to substantial pollutant concentrations.
- Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people.

The MDAQMD has developed regional significance thresholds for regulated pollutants, shown below in Table 3-1. The MDAQMD's *Guidelines* indicate that any projects in the MDAB with daily regional emissions that exceed any of the indicated thresholds should be considered as having an individually and cumulatively significant air quality impact (18).

TABLE 3-1: MAXIMUM REGIONAL DAILY EMISSIONS THRESHOLDS

Pollutant	Daily Threshold (lbs/day)
CO	548 lbs/day
NO_X	137 lbs/day
VOC	137 lbs/day
SO_X	137 lbs/day
PM_{10}	82 lbs/day
$PM_{2.5}$	65 lbs/day

Note: lbs/day – pounds per day

3.3 MODELS EMPLOYED TO ANALYZE AIR QUALITY EMISSIONS

Land uses such as the Project affect GHGs through construction-source and operational-source emissions.

3.3.1 CALEEMOD

In May 2021, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the CalEEMod Version 2020.4.0. The purpose of this model is to calculate construction-source and operational-source criteria pollutant (VOCs, NO_X, SO_X, CO, PM_{10}, and $PM_{2.5}$) and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation (19). Accordingly, the latest version of CalEEMod has been used for this Project to determine construction and operational air quality emissions. Output from the model runs for both construction and operational activity are provided in Appendix 3.1.

3.4 CONSTRUCTION EMISSIONS

Construction activities associated with the Project will result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating
- Construction Workers Commuting

GRADING ACTIVITIES

Dust is typically a major concern during grading activities. Because such emissions are not amenable to collection and discharge through a controlled source, they are called “fugitive emissions”. Fugitive dust emissions rates vary as a function of many parameters (soil silt, soil moisture, wind speed, area disturbed, number of vehicles, depth of disturbance or excavation, etc.). CalEEMod was utilized to calculate fugitive dust emissions resulting from this phase of activity. The Project will not require the import or export of any soil.

CONSTRUCTION WORKER VEHICLE TRIPS

Construction emissions for construction worker vehicles traveling to and from the Project site, as well as vendor trips (construction materials delivered to the Project site) were estimated based on information from CalEEMod defaults.

3.4.1 CONSTRUCTION DURATION

Construction is expected to commence in early 2022 and will last through August 2023. Construction duration by phase is shown on Table 3-2. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent.[2] The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per *CEQA Guidelines*.

TABLE 3-2: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2022	01/14/2022	10
Grading	01/29/2022	03/04/2022	35
Building Construction	3/05/2022	08/04/2023	370
Paving	03/01/2023	08/04/2023	113
Architectural Coating	03/01/2023	08/04/2023	113

3.4.2 CONSTRUCTION EQUIPMENT

Site specific construction fleet may vary due to specific project needs at the time of construction. The associated construction equipment was generally based on CalEEMod defaults. A detailed summary of construction equipment assumptions by phase is provided at Table 3-3. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis.

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS (1 OF 2)

Phase Name	Equipment[1]	Number	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8

[2] As shown in the CalEEMod User's Guide Version 2020.4.0, Section 4.3"Offroad Equipment" as the analysis year increases, emission factors for the same equipment pieces decrease due to the natural turnover of older equipment being replaced by newer less polluting equipment and new regulatory requirements.

TABLE 3-3: CONSTRUCTION EQUIPMENT ASSUMPTIONS (2 OF 2)

Phase Name	Equipment[1]	Number	Hours Per Day
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

[1] In order to account for fugitive dust emissions, Crawler Tractors were used in lieu of Tractors/Loaders/Backhoes.

3.4.3 CONSTRUCTION EMISSIONS SUMMARY

IMPACTS WITHOUT MITIGATION

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized on Table 3-4. Detailed construction model outputs are presented in Appendix 3.1. Under the assumed scenarios, emissions resulting from the Project construction would not exceed criteria pollutant thresholds established by the MDAQMD.

TABLE 3-4: EMISSIONS SUMMARY OF CONSTRUCTION

Year	Emissions (lbs/day)					
	VOC	NO_X	CO	SO_X	PM_{10}	$PM_{2.5}$
Summer						
2022	8.09	66.69	70.16	0.18	24.17	12.48
2023	119.20	38.91	60.63	0.15	10.20	4.01
Winter						
2022	7.97	67.13	66.09	0.17	24.17	12.48
2023	119.07	39.31	56.22	0.14	10.20	4.01
Maximum Daily Emissions	**119.20**	**67.13**	**70.16**	**0.18**	**24.17**	**12.48**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

Source: CalEEMod construction-source emissions are presented in Appendix 3.1

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of VOCs, NO_X, CO, SO_X, PM_{10}, and $PM_{2.5}$. Operational emissions would be expected from the following primary sources:

- Area Source Emissions
- Energy Source Emissions
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

ARCHITECTURAL COATINGS

Over a period of time the buildings that are part of this Project would require maintenance and would therefore produce emissions resulting from the evaporation of solvents contained in paints, varnishes, primers, and other surface coatings. The emissions associated with architectural coatings were calculated using CalEEMod.

CONSUMER PRODUCTS

Consumer products include, but are not limited to detergents, cleaning compounds, polishes, personal care products, and lawn and garden products. Many of these products contain organic compounds which when released in the atmosphere can react to form ozone and other photochemically reactive pollutants. The emissions associated with use of consumer products were calculated based on defaults provided within CalEEMod.

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in CalEEMod.

3.5.2 ENERGY SOURCE EMISSIONS

COMBUSTION EMISSIONS ASSOCIATED WITH NATURAL GAS AND ELECTRICITY

Electricity and natural gas are used by almost every project. Criteria pollutant emissions are emitted through the generation of electricity and consumption of natural gas. However, because electrical generating facilities for the Project area are located either outside the region (state) or offset through the use of pollution credits (RECLAIM) for generation within the MDAB, criteria pollutant emissions from offsite generation of electricity are generally excluded from the evaluation of significance and only natural gas use is considered. Because natural gas is not available at the Project site, these emissions were excluded.

3.5.3 MOBILE SOURCE EMISSIONS

The Project related operational air quality emissions derive primarily from vehicle trips generated by the Project, including employee trips to and from the site and truck trips associated with the proposed uses. Trip characteristics available from the *Edelweiss Sustainable Farms Project Traffic Study* were utilized in this analysis (20). The Project is expected to generate a total of approximately 2,279 two-way vehicular trips per day (20).

To determine emissions from passenger car vehicles, the CalEEMod defaults were utilized for trip length and trip purpose. Additionally, CalEEMod defaults were utilized for the vehicle fleet mix for the Project.

FUGITIVE DUST RELATED TO VEHICULAR TRAVEL

Vehicles traveling on paved roads would be a source of fugitive emissions due to the generation of road dust inclusive of break and tire wear particulates. The emissions estimate for travel on paved roads were calculated using CalEEMod.

3.5.4 OPERATIONAL EMISSIONS SUMMARY

The estimated operational-source emissions are summarized on Table 3-5. Detailed operation model outputs for the Project are presented in Appendices 3.1. As shown on Table 3-5, the Project's daily regional emissions from on-going operations would not exceed the thresholds of significance for emissions of any criteria pollutant.

TABLE 3-5: SUMMARY OF PEAK OPERATIONAL EMISSIONS

Source	Emissions (lbs/day)					
	VOC	**NO_X**	**CO**	**SO_X**	**PM_{10}**	**$PM_{2.5}$**
Summer						
Area Source	15.12	5.10E-04	0.06	0.00	2.00E-04	2.00E-04
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	7.69	10.59	78.81	0.18	18.09	4.92
Total Maximum Daily Emissions	**22.81**	**10.59**	**78.87**	**0.18**	**18.09**	**4.92**
MDAQMD Regional Threshold	137	137	548	137	82	65
Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**
Winter						
Area Source	15.12	5.10E-04	0.06	0.00	2.00E-04	2.00E-04
Energy Source	0.00	0.00	0.00	0.00	0.00	0.00
Mobile Source	6.59	11.22	69.25	0.17	18.09	4.92
Total Maximum Daily Emissions	**21.71**	**11.22**	**69.30**	**0.17**	**18.10**	**4.92**
MDAQMD Regional Threshold	137	137	548	137	82	65

Threshold Exceeded?	**NO**	**NO**	**NO**	**NO**	**NO**	**NO**

3.6 CO "HOT SPOT" ANALYSIS

As discussed below, the Project would not result in potentially adverse CO concentrations or "hot spots." Further, detailed modeling of Project-specific CO "hot spots" is not needed to reach this conclusion. An adverse CO concentration, known as a "hot spot", would occur if an exceedance of the state one-hour standard of 20 ppm or the eight-hour standard of 9 ppm were to occur. At the time of the 1993 Handbook, the MDAB was designated nonattainment under the CAAQS and NAAQS for CO (21).

It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. In response, vehicle emissions standards have become increasingly stringent in the last twenty years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the MDAB is now designated as attainment. To establish a more accurate record of baseline CO concentrations affecting the MDAB, a CO "hot spot" analysis was conducted in 2003 for four busy intersections in Los Angeles at the peak morning and afternoon time periods. This "hot spot" analysis did not predict any violation of CO standards, as shown on Table 3-6.

TABLE 3-6: CO MODEL RESULTS

Intersection Location	CO Concentrations (ppm)		
	Morning 1-hour	**Afternoon 1-hour**	**8-hour**
Wilshire Boulevard/ Veteran Avenue	4.6	3.5	3.7
Sunset Boulevard/ Highland Avenue	4.0	4.5	3.5
La Cienega Boulevard/ Century Boulevard	3.7	3.1	5.2
Long Beach Boulevard/ Imperial Highway	3.0	3.1	8.4

Source: 2003 AQMP, Appendix V: Modeling and Attainment Demonstrations
Notes: Federal 1-hour standard is 35 ppm and the deferral 8-hour standard is 9.0 ppm.

In order to provide additional context for these values and the contribution vehicle emissions to CO concentrations, per SCAQMD's 2003 AQMP and the 1992 Federal Attainment Plan for Carbon Monoxide (1992 CO Plan), peak CO concentrations in the SCAB were a result of unusual meteorological and topographical conditions and not a result of traffic volumes and congestion at a particular intersection. As evidence of this, for example, 8.4 ppm 8-hour CO concentration measured at the Long Beach Boulevard and Imperial Highway intersection (highest CO generating intersection within the "hot spot" analysis), only 0.7 ppm was attributable to the traffic volumes

and congestion at this intersection; the remaining 7.7 ppm were due to the ambient air measurements at the time the 2003 AQMP was prepared (22).

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District (BAAQMD) concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour (vph) —or 24,000 vph where vertical and/or horizontal air does not mix—in order to generate a significant CO impact (23).

Traffic volumes generating the CO concentrations for the "hot spot" analysis is shown on Table 3-7. The busiest intersection evaluated was that at Wilshire Boulevard and Veteran Avenue, which has a daily traffic volume of approximately 100,000 vehicles per day and AM/PM traffic volumes of 8,062 vph and 7,719 vph respectively (24). The 2003 AQMP estimated that the 1-hour concentration for this intersection was 4.6 ppm; this indicates that, should the daily traffic volume increase four times to 400,000 vehicles per day, CO concentrations (4.6 ppm x 4= 18.4 ppm) would still not likely exceed the most stringent 1-hour CO standard (20.0 ppm).[3] As shown on Exhibit 5-2 of the TA, *Cumulative 5 Year (2026) With Project Traffic Volumes*, the highest average daily trips on a segment of road would be 15,700 daily trips on Lovekin Boulevard, which is lower than the highest daily traffic volumes at Wilshire Blvd. and Veteran Ave. of 100,000 vehicles per day (20). Additionally, the 2003 AQMP determined that the highest traffic volumes on a segment of road is 8,674 vph on La Cienega Boulevard and Century Boulevard. As shown on Table 3-8 the highest trips on a segment of road for the Project is 2,352 vph on Lovekin Boulevard and Hobsonway. As such, Project-related traffic volumes are less than the traffic volumes identified in the 2003 AQMP. The proposed Project considered herein would not produce the volume of traffic required to generate a CO "hot spot" either in the context of the 2003 Los Angeles hot spot study or based on representative BAAQMD CO threshold considerations. Therefore, CO "hot spots" are not an environmental impact of concern for the proposed Project. Localized air quality impacts related to mobile-source emissions would therefore be less than significant.

TABLE 3-7: TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Eastbound (AM/PM)	Westbound (AM/PM)	Southbound (AM/PM)	Northbound (AM/PM)	Total (AM/PM)
Wilshire Boulevard/Veteran Avenue	4,954/2,069	1,830/3,317	721/1,400	560/933	8,062/7,719
Sunset Boulevard/Highland Avenue	1,417/1,764	1,342/1,540	2,304/1,832	1,551/2,238	6,614/5,374
La Cienega Boulevard/ Century Boulevard	2,540/2,243	1,890/2,728	1,384/2,029	821/1,674	6,634/8,674

[3] Based on the ratio of the CO standard (20.0 ppm) and the modeled value (4.6 ppm).

Long Beach Boulevard/ Imperial Highway	1,217/2,020	1,760/1,400	479/944	756/1,150	4,212/5,514

Source: 2003 AQMP

TABLE 3-8: CUMULATIVE 5 YEAR (2026) WITH PROJECT PEAK TRAFFIC VOLUMES

Intersection Location	Peak Traffic Volumes (vph)				
	Northbound (AM/PM)	Southbound (AM/PM)	Eastbound (AM/PM)	Westbound (AM/PM)	Total (AM/PM)
Defrain Boulevard / Hobsonway	61/79	39/43	416/406	240/416	756/944
Neighbours Boulevard / Hobsonway	11/16	150/262	317/313	71/100	549/691
Neighbours Boulevard / I-10 WB Ramps	265/181	144/204	--/--	124/148	533/533
Neighbours Boulevard / I-10 EB Ramps	231/156	121/190	89/112	--/--	441/458
Lovekin Boulevard / Hobsonway	276/537	480/563	437/776	446/518	1,639/2,394
Project Driveway / Hobsonway	--/--	283/113	271/488	255/402	809/1,003

Source: *Edelweiss Sustainable Farms Project Traffic Study* (Urban Crossroads, Inc.)

3.7 AQMP

The Federal Particulate Matter Attainment Plan and Ozone Attainment Plan for the Mojave Desert set forth a comprehensive set of programs that will lead the MDAB into compliance with federal and state air quality standards. The control measures and related emission reduction estimates within the Federal Particulate Matter Attainment Plan and Ozone Attainment Plan are based upon emissions projections for a future development scenario derived from land use, population, and employment characteristics defined in consultation with local governments. Accordingly, conformance with these attainment plans for development projects is determined by demonstrating compliance the indicators discussed below:

3.7.1 CONSISTENCY CRITERION NO. 1

Local land use plans and/or population projections

As previously stated, the City of Blythe General Plan designates the Project site for General Commercial uses. The Project Applicant proposes land uses that are consistent with development anticipated under the site's existing General Plan designation. The Project would therefore conform to local land use plans.

3.7.4 CONSISTENCY CRITERION NO. 2

All MDAQMD Rules and Regulations

The Project would be required to comply with all applicable MDAQMD Rules and Regulations, including, but not limited to Rules 401 (Visibile Emissions), 402 (Nuisance), and 403 (Fugitive Dust). As previously stated in Section ES.2 of this AQIA, the Project would implement BCAM AQ-1 (MDAQMD Rule 1113 for flat coatings).

3.7.3 CONSISTENCY CRITERION NO. 3

Demonstrating that the project will not increase the frequency or severity of a violation in the federal or state ambient air quality standards

As substantiated herein, Project construction and operational-source emissions would not exceed applicable MDAQMD regional thresholds. As such, the Project would not have the potential to increase the frequency or severity of a violation in the federal or state ambient air quality for on-going project operations.

AQMP CONSISTENCY CONCLUSION

The Project would conform to local land use plans, comply with all applicable all MDAQMD Rules and Regulations, and would not exeed the applicable regional thresholds. Therefore, the Project would be considered to have a less than signifiant impact and is consistent with the AQMP.

3.8 POTENTIAL IMPACTS TO SENSITIVE RECEPTORS

As per the MDAQMD's *Guidelines*, the following project types located within a specified distance to an existing or planned sensitive receptor land use must be evaluated to determine exposure of substantial pollutant concentrations to sensitive receptors (18):

- Any industrial project within 1,000 feet;
- A distribution center (40 or more trucks per day) within 1,000 feet;
- A major transportation project (50,000 or more vehicles per day) within 1,000 feet;
- A dry cleaner using perchloroethylene within 500 feet;
- A gasoline dispensing facility within 300 feet.

The proposed Project consists of 509,103 sf of Cannabis Processing and Cultivation use and 24,709 sf of administration/office use. Because the proposed Project does not qualify as one of these project types, and does not exceed the applicable short-term construction or long-term operation regional emission thresholds, no significant impacts to nearby sensitive receptors would be expected.

3.9 ODORS

The potential for the Project to generate objectionable odors has also been considered. Land uses generally associated with odor complaints include:

- Agricultural uses (livestock and farming)
- Wastewater treatment plants
- Food processing plants

- Chemical plants
- Composting operations
- Refineries
- Landfills
- Dairies
- Fiberglass molding facilities

The proposed Project includes a cannabis cultivation/processing operation. This type of project has the potential to generate odors, however because the cultivation/processing operation is entirely indoors, it is expected that any odors generated would be minimized. Potential temporary and intermittent odors may result from construction equipment exhaust and the application of asphalt and architectural coatings. Temporary and intermittent construction-source emissions are controlled through existing requirements and industry Best Management Practices (BMPs) addressing proper storage of and application construction materials.

Over the life of the Project, odors may result from storage of municipal solid waste pending its transport to area landfills. Project-generated refuse would be stored in covered containers and removed at regular intervals in compliance with the City of Blythe's solid waste regulations.

The proposed Project would also be required to comply with MDAQMD Rule 402. Rule 402 provides that "[a] person shall not discharge from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property." (25). Based on the preceding, the potential for the Project to create objectionable odors affecting a substantial number of people is considered less-than-significant.

3.10 CUMULATIVE IMPACTS

The MDAQMD relies on the SCAQMD guidance for determining cumulative impacts. The SCAQMD has recognized that there is typically insufficient information to quantitatively evaluate the cumulative contributions of multiple projects because each project applicant has no control over nearby projects.

The SCAQMD published a report on how to address cumulative impacts from air pollution: *White Paper on Potential Control Strategies to Address Cumulative Impacts from Air Pollution* (26). In this report the SCAQMD clearly states (Page D-3):

> *"…the AQMD uses the same significance thresholds for project specific and cumulative impacts for all environmental topics analyzed in an Environmental Assessment or EIR. The only case where the significance thresholds for project specific and cumulative impacts differ is the Hazard Index (HI) significance threshold for toxic air contaminant (TAC) emissions. The project specific (project increment) significance threshold is HI > 1.0 while the cumulative (facility-wide) is*

> *HI > 3.0. It should be noted that the HI is only one of three TAC emission significance thresholds considered (when applicable) in a CEQA analysis. The other two are the maximum individual cancer risk (MICR) and the cancer burden, both of which use the same significance thresholds (MICR of 10 in 1 million and cancer burden of 0.5) for project specific and cumulative impacts.*
>
> *Projects that exceed the project-specific significance thresholds are considered by the SCAQMD to be cumulatively considerable. This is the reason project-specific and cumulative significance thresholds are the same. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant."*

Individual projects that do not generate operational or construction emissions that exceed the MDAQMD's recommended daily thresholds for project-specific impacts would also not cause a cumulatively considerable increase in emissions for those pollutants for which the Basin is in nonattainment, and, therefore, would not be considered to have a significant, adverse air quality impact. Conversely, individual project-related construction and operational emissions that exceed MDAQMD thresholds for project-specific impacts would be considered cumulatively considerable. As previously noted, the Project will not exceed the applicable MDAQMD regional threshold for construction and operational-source emissions. As such, the Project will not result in a cumulatively significant impact for construction or operational activity.

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5 CERTIFICATIONS

The contents of this air study report represent an accurate depiction of the environmental impacts associated with the proposed Edelweiss Sustainable Farms Project Project. The information contained in this air quality impact assessment report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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Master of Science in Environmental Studies
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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
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ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 2.1:

STATE/FEDERAL ATTAINMENT STATUS OF CRITERIA POLLUTANTS

APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

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APPENDIX C

MAPS AND TABLES OF AREA DESIGNATIONS FOR STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS

This attachment fulfills the requirement of Health and Safety Code section 40718 for CARB to publish maps that identify areas where one or more violations of any State ambient air quality standard (State standard) or national ambient air quality standard (national standard) have been measured. The national standards are those promulgated under section 109 of the federal Clean Air Act (42 U.S.C. 7409).

This attachment is divided into three parts. The first part comprises a table showing the levels, averaging times, and measurement methods for each of the State and national standards. This is followed by a section containing maps and tables showing the area designations for each pollutant for which there is a State standard in the California Code of Regulations, title 17, section 70200. The last section contains maps and tables showing the most current area designations for the national standards.

Ambient Air Quality Standards

(Updated 5/4/16)

Pollutant	Averaging Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O_3)[8]	1 Hour	0.09 ppm (180 µg/m³)	Ultraviolet Photometry	—	Same as Primary Standard	Ultraviolet Photometry
	8 Hour	0.070 ppm (137 µg/m³)		0.070 ppm (137 µg/m³)		
Respirable Particulate Matter (PM10)[9]	24 Hour	50 µg/m³	Gravimetric or Beta Attenuation	150 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	20 µg/m³		—		
Fine Particulate Matter (PM2.5)[9]	24 Hour	—	—	35 µg/m³	Same as Primary Standard	Inertial Separation and Gravimetric Analysis
	Annual Arithmetic Mean	12 µg/m³	Gravimetric or Beta Attenuation	12.0 µg/m³	15 µg/m³	
Carbon Monoxide (CO)	1 Hour	20 ppm (23 mg/m³)	Non-Dispersive Infrared Photometry (NDIR)	35 ppm (40 mg/m³)	—	Non-Dispersive Infrared Photometry (NDIR)
	8 Hour	9.0 ppm (10 mg/m³)		9 ppm (10 mg/m³)	—	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m³)		—	—	
Nitrogen Dioxide (NO_2)[10]	1 Hour	0.18 ppm (339 µg/m³)	Gas Phase Chemiluminescence	100 ppb (188 µg/m³)	—	Gas Phase Chemiluminescence
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)		0.053 ppm (100 µg/m³)	Same as Primary Standard	
Sulfur Dioxide (SO_2)[11]	1 Hour	0.25 ppm (655 µg/m³)	Ultraviolet Fluorescence	75 ppb (196 µg/m³)	—	Ultraviolet Flourescence; Spectrophotometry (Pararosaniline Method)
	3 Hour	—		—	0.5 ppm (1300 µg/m³)	
	24 Hour	0.04 ppm (105 µg/m³)		0.14 ppm (for certain areas)[11]	—	
	Annual Arithmetic Mean	—		0.030 ppm (for certain areas)[11]	—	
Lead[12,13]	30 Day Average	1.5 µg/m³	Atomic Absorption	—	—	High Volume Sampler and Atomic Absorption
	Calendar Quarter	—		1.5 µg/m³ (for certain areas)[12]	Same as Primary Standard	
	Rolling 3-Month Average	—		0.15 µg/m³		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No National Standards**		
Sulfates	24 Hour	25 µg/m³	Ion Chromatography			
Hydrogen Sulfide	1 Hour	0.03 ppm (42 µg/m³)	Ultraviolet Fluorescence			
Vinyl Chloride[12]	24 Hour	0.01 ppm (26 µg/m³)	Gas Chromatography			

See footnotes on next page ...

1. California standards for ozone, carbon monoxide (except 8-hour Lake Tahoe), sulfur dioxide (1- and 24-hour), nitrogen dioxide, and particulate matter (PM10, PM2.5, and visibility reducing particles), are values that are not to be exceeded. All others are not to be equaled or exceeded. California ambient air quality standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

2. National standards (other than ozone, particulate matter, and those based on annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over three years, is equal to or less than the standard. For PM10, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 $\mu g/m^3$ is equal to or less than one. For PM2.5, the 24-hour standard is attained when 98 percent of the daily concentrations, averaged over three years, are equal to or less than the standard. Contact the U.S. EPA for further clarification and current national policies.

3. Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based upon a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

4. Any equivalent measurement method which can be shown to the satisfaction of the CARB to give equivalent results at or near the level of the air quality standard may be used.

5. National Primary Standards: The levels of air quality necessary, with an adequate margin of safety to protect the public health.

6. National Secondary Standards: The levels of air quality necessary to protect the public welfare from any known or anticipated adverse effects of a pollutant.

7. Reference method as described by the U.S. EPA. An “equivalent method” of measurement may be used but must have a “consistent relationship to the reference method” and must be approved by the U.S. EPA.

8. On October 1, 2015, the national 8-hour ozone primary and secondary standards were lowered from 0.075 to 0.070 ppm.

9. On December 14, 2012, the national annual PM2.5 primary standard was lowered from 15 $\mu g/m^3$ to 12.0 $\mu g/m^3$. The existing national 24-hour PM2.5 standards (primary and secondary) were retained at 35 $\mu g/m^3$, as was the annual secondary standard of 15 $\mu g/m^3$. The existing 24-hour PM10 standards (primary and secondary) of 150 $\mu g/m^3$ also were retained. The form of the annual primary and secondary standards is the annual mean, averaged over 3 years.

10. To attain the 1-hour national standard, the 3-year average of the annual 98th percentile of the 1-hour daily maximum concentrations at each site must not exceed 100 ppb. Note that the national 1-hour standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the national 1-hour standard to the California standards the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

11. On June 2, 2010, a new 1-hour SO_2 standard was established and the existing 24-hour and annual primary standards were revoked. To attain the 1-hour national standard, the 3-year average of the annual 99th percentile of the 1-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment for the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

    Note that the 1-hour national standard is in units of parts per billion (ppb). California standards are in units of parts per million (ppm). To directly compare the 1-hour national standard to the California standard the units can be converted to ppm. In this case, the national standard of 75 ppb is identical to 0.075 ppm.

12. The CARB has identified lead and vinyl chloride as 'toxic air contaminants' with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

13. The national standard for lead was revised on October 15, 2008 to a rolling 3-month average. The 1978 lead standard (1.5 $\mu g/m^3$ as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

14. In 1989, the CARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

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Area Designations for the State Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a State standard set forth in the California Code of Regulations, title 17, section 60200. Each area is identified as attainment, nonattainment, nonattainment-transitional, or unclassified for each pollutant, as shown below:

Attainment	A
Nonattainment	N
Nonattainment-Transitional	NA-T
Unclassified	U

In general, CARB designates areas by air basin for pollutants with a regional impact and by county for pollutants with a more local impact. However, when there are areas within an air basin or county with distinctly different air quality deriving from sources and conditions not affecting the entire air basin or county, CARB may designate a smaller area. Generally, when boundaries of the designated area differ from the air basin or county boundaries, the description of the specific area is referenced at the bottom of the summary table.

FIGURE 1



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 1

California Ambient Air Quality Standards
Area Designations for Ozone [1]

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					NORTHEAST PLATEAU AIR BASIN				X
Alpine County			X		SACRAMENTO VALLEY AIR BASIN				
Inyo County	X				Colusa and Glenn Counties				X
Mono County	X				Sutter/Yuba Counties				
LAKE COUNTY AIR BASIN				X	Sutter Buttes	X			
LAKE TAHOE AIR BASIN				X	Remainder of Sutter County				X
MOJAVE DESERT AIR BASIN	X				Yuba County				X
MOUNTAIN COUNTIES AIR BASIN					Yolo/Solano Counties		X		
Amador County	X				Remainder of Air Basin	X			
Calaveras County	X				SALTON SEA AIR BASIN	X			
El Dorado County (portion)	X				SAN DIEGO AIR BASIN	X			
Mariposa County	X				SAN FRANCISCO BAY AREA AIR BASIN	X			
Nevada County	X				SAN JOAQUIN VALLEY AIR BASIN	X			
Placer County (portion)	X				SOUTH CENTRAL COAST AIR BASIN				
Plumas County			X		San Luis Obispo County	X			
Sierra County			X		Santa Barbara County		X		
Tuolumne County	X				Ventura County	X			
NORTH CENTRAL COAST AIR BASIN		X			SOUTH COAST AIR BASIN	X			
NORTH COAST AIR BASIN				X					

(1) AB 3048 (Olberg) and AB 2525 (Miller) signed into law in 1996, made changes to Health and Safety Code, section 40925.5. One of the changes allows nonattainment districts to become nonattainment-transitional for ozone by operation of law.

FIGURE 2



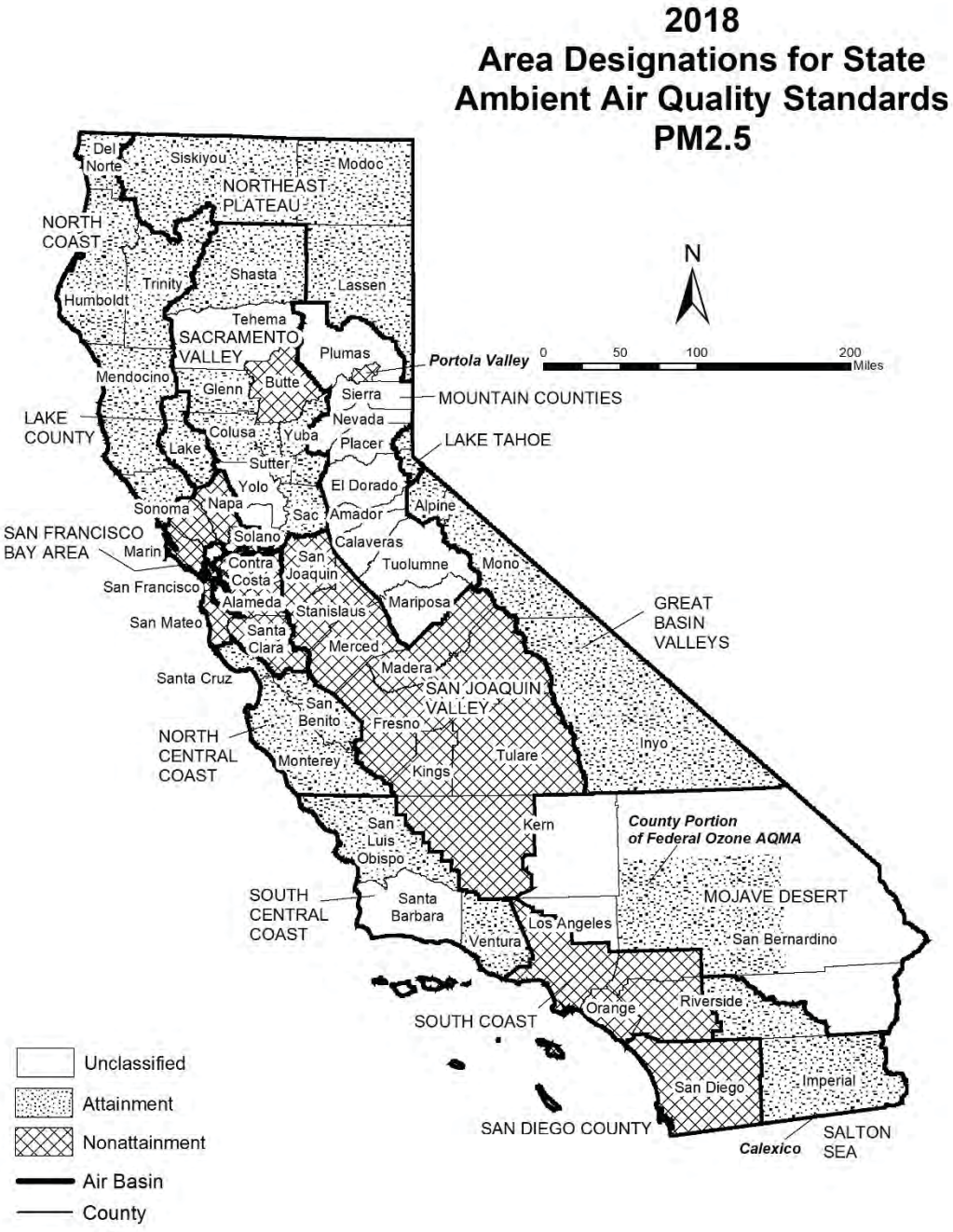
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 2

California Ambient Air Quality Standards
Area Designation for Suspended Particulate Matter (PM10)

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN	X			NORTH CENTRAL COAST AIR BASIN	X		
LAKE COUNTY AIR BASIN			X	NORTH COAST AIR BASIN			
LAKE TAHOE AIR BASIN	X			Del Norte, Sonoma (portion) and Trinity Counties			X
MOJAVE DESERT AIR BASIN	X			Remainder of Air Basin	X		
MOUNTAIN COUNTIES AIR BASIN				NORTHEAST PLATEAU AIR BASIN			
Amador County		X		Siskiyou County			X
Calaveras County	X			Remainder of Air Basin		X	
El Dorado County (portion)	X			SACRAMENTO VALLEY AIR BASIN			
Mariposa County				Shasta County			X
- Yosemite National Park	X			Remainder of Air Basin	X		
- Remainder of County		X		SALTON SEA AIR BASIN	X		
Nevada County	X			SAN DIEGO AIR BASIN	X		
Placer County (portion)	X			SAN FRANCISCO BAY AREA AIR BASIN	X		
Plumas County	X			SAN JOAQUIN VALLEY AIR BASIN	X		
Sierra County	X			SOUTH CENTRAL COAST AIR BASIN	X		
Tuolumne County		X		SOUTH COAST AIR BASIN	X		

FIGURE 3



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 3

California Ambient Air Quality Standards
Area Designations for Fine Particulate Matter (PM2.5)

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SALTON SEA AIR BASIN			
LAKE COUNTY AIR BASIN			X	Imperial County			
LAKE TAHOE AIR BASIN			X	- City of Calexico (3)	X		
MOJAVE DESERT AIR BASIN				Remainder of Air Basin			X
San Bernardino County				SAN DIEGO AIR BASIN	X		
- County portion of federal Southeast Desert Modified AQMA for Ozone (1)			X	SAN FRANCISCO BAY AREA AIR BASIN	X		
				SAN JOAQUIN VALLEY AIR BASIN	X		
Remainder of Air Basin		X		SOUTH CENTRAL COAST AIR BASIN			
MOUNTAIN COUNTIES AIR BASIN				San Luis Obispo County			X
Plumas County				Santa Barbara County		X	
- Portola Valley (2)	X			Ventura County			X
Remainder of Air Basin		X		SOUTH COAST AIR BASIN	X		
NORTH CENTRAL COAST AIR BASIN			X				
NORTH COAST AIR BASIN			X				
NORTHEAST PLATEAU AIR BASIN			X				
SACRAMENTO VALLEY AIR BASIN							
Butte County	X						
Colusa County			X				
Glenn County			X				
Placer County (portion)			X				
Sacramento County			X				
Shasta County			X				
Sutter and Yuba Counties			X				
Remainder of Air Basin		X					

(1) California Code of Regulations, title 17, section 60200(b)

(2) California Code of Regulations, title 17, section 60200(c)

(3) California Code of Regulations, title 17, section 60200(a)

FIGURE 4



Source Date:
October 2018
Air Quality Planning and Science Division

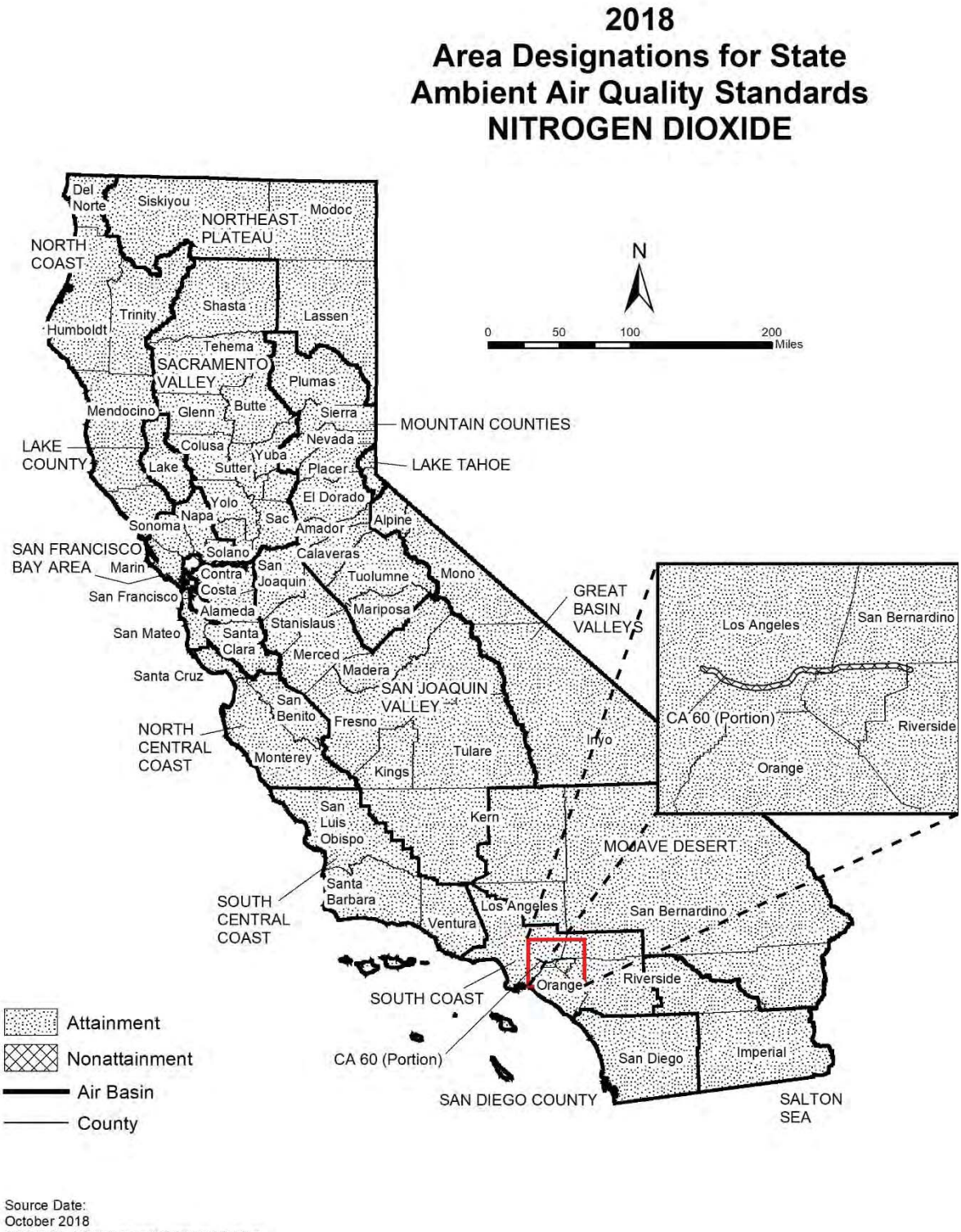
TABLE 4

California Ambient Air Quality Standards
Area Designation for Carbon Monoxide*

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					SACRAMENTO VALLEY AIR BASIN				
Alpine County			X		Butte County				X
Inyo County				X	Colusa County			X	
Mono County				X	Glenn County			X	
LAKE COUNTY AIR BASIN				X	Placer County (portion)				X
LAKE TAHOE AIR BASIN				X	Sacramento County				X
MOJAVE DESERT AIR BASIN					Shasta County			X	
Kern County (portion)			X		Solano County (portion)				X
Los Angeles County (portion)				X	Sutter County				X
Riverside County (portion)			X		Tehama County			X	
San Bernardino County (portion)				X	Yolo County				X
MOUNTAIN COUNTIES AIR BASIN					Yuba County			X	
Amador County			X		SALTON SEA AIR BASIN				X
Calaveras County			X		SAN DIEGO AIR BASIN				X
El Dorado County (portion)			X		SAN FRANCISCO BAY AREA AIR BASIN				X
Mariposa County			X		SAN JOAQUIN VALLEY AIR BASIN				
Nevada County			X		Fresno County				X
Placer County (portion)			X		Kern County (portion)				X
Plumas County				X	Kings County			X	
Sierra County			X		Madera County			X	
Tuolumne County				X	Merced County			X	
NORTH CENTRAL COAST AIR BASIN					San Joaquin County				X
Monterey County				X	Stanislaus County				X
San Benito County			X		Tulare County				X
Santa Cruz County			X		SOUTH CENTRAL COAST AIR BASIN				X
NORTH COAST AIR BASIN					SOUTH COAST AIR BASIN				X
Del Norte County			X						
Humboldt County				X					
Mendocino County				X					
Sonoma County (portion)			X						
Trinity County			X						
NORTHEAST PLATEAU AIR BASIN			X						

* The area designated for carbon monoxide is a county or portion of a county

FIGURE 5



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 5

California Ambient Air Quality Standards
Area Designation for Nitrogen Dioxide

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SACRAMENTO VALLEY AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN DIEGO AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X	SOUTH COAST AIR BASIN			
NORTHEAST PLATEAU AIR BASIN			X	CA 60 Near-road Portion of San Bernardino, Riverside, and Los Angeles Counties	X		
				Remainder of Air Basin			X

FIGURE 6



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 6

California Ambient Air Quality Standards
Area Designation for Sulfur Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SALTON SEA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN DIEGO AIR BASIN		X
MOJAVE DESERT AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X			

* The area designated for sulfur dioxide is a county or portion of a county

FIGURE 7



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 7

California Ambient Air Quality Standards
Area Designation for Sulfates

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SACRAMENTO VALLEY AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN DIEGO AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH COAST AIR BASIN			X	SOUTH COAST AIR BASIN			X
NORTHEAST PLATEAU AIR BASIN			X				

FIGURE 8



Source Date:
October 2018
Air Quality Planning and Science Division

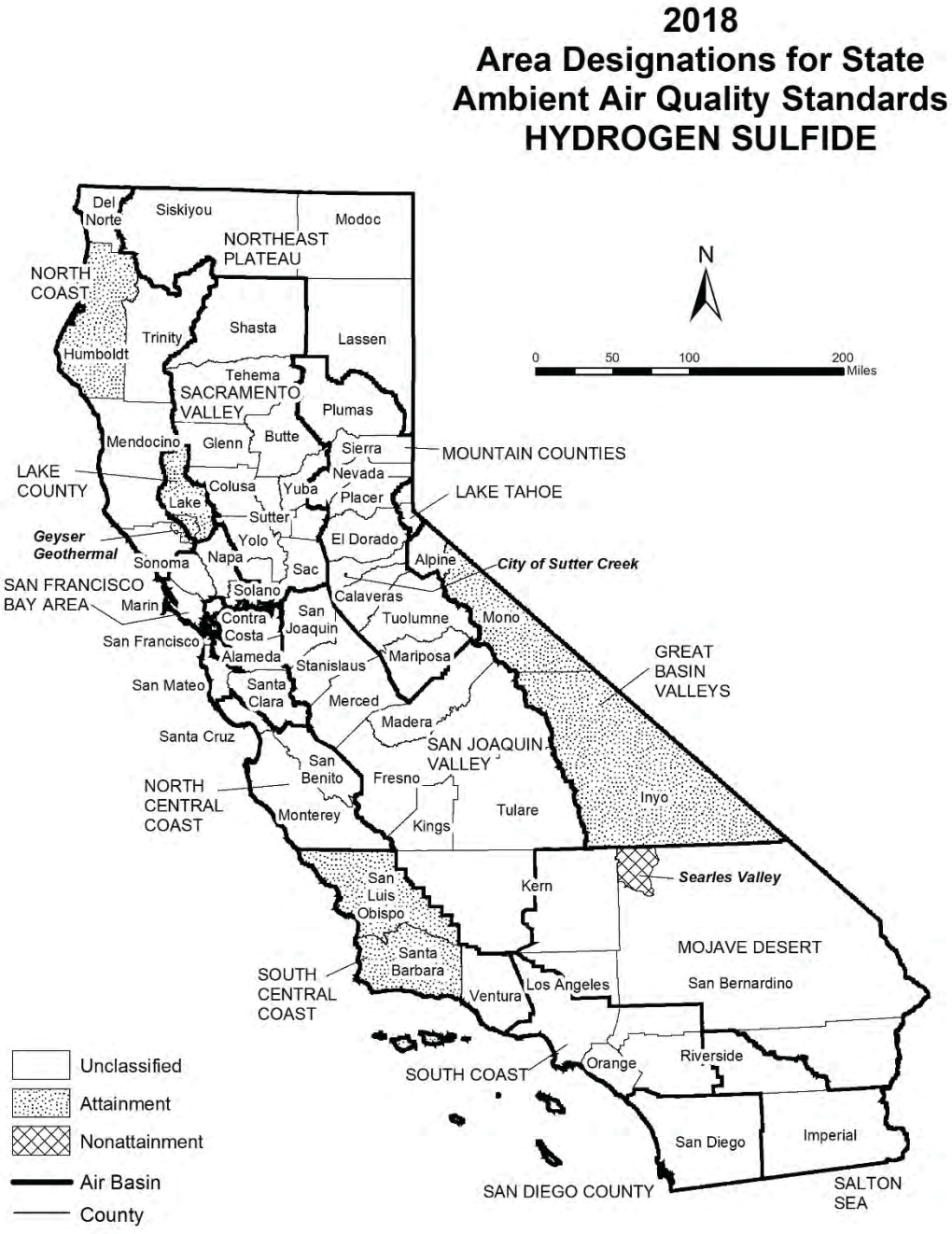
TABLE 8

California Ambient Air Quality Standards
Area Designations for Lead (particulate)*

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN			X	SALTON SEA AIR BASIN			X
LAKE COUNTY AIR BASIN			X	SAN DIEGO AIR BASIN			X
LAKE TAHOE AIR BASIN			X	SAN FRANCISCO BAY AREA AIR BASIN			X
MOJAVE DESERT AIR BASIN			X	SAN JOAQUIN VALLEY AIR BASIN			X
MOUNTAIN COUNTIES AIR BASIN			X	SOUTH CENTRAL COAST AIR BASIN			X
NORTH CENTRAL COAST AIR BASIN			X	SOUTH COAST AIR BASIN			X
NORTH COAST AIR BASIN			X				
NORTHEAST PLATEAU AIR BASIN			X				
SACRAMENTO VALLEY AIR BASIN			X				

* The area designated for lead is a county or portion of a county. Since all areas in the State are in attainment for this standard, air basins are indicated here for simplicity.

FIGURE 9



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 9

California Ambient Air Quality Standards
Area Designation for Hydrogen Sulfide*

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN					NORTH CENTRAL COAST AIR BASIN			X	
Alpine County			X		NORTH COAST AIR BASIN				
Inyo County				X	Del Norte County			X	
Mono County				X	Humboldt County				X
LAKE COUNTY AIR BASIN				X	Mendocino County			X	
LAKE TAHOE AIR BASIN			X		Sonoma County (portion)				
MOJAVE DESERT AIR BASIN					- Geyser Geothermal Area (2)				X
Kern County (portion)			X		- Remainder of County			X	
Los Angeles County (portion)			X		Trinity County			X	
Riverside County (portion)			X		NORTHEAST PLATEAU AIR BASIN			X	
San Bernardino County (portion)					SACRAMENTO VALLEY AIR BASIN			X	
- Searles Valley Planning Area (1)	X				SALTON SEA AIR BASIN			X	
- Remainder of County			X		SAN DIEGO AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN					SAN FRANCISCO BAY AREA AIR BASIN			X	
Amador County					SAN JOAQUIN VALLEY AIR BASIN			X	
- City of Sutter Creek	X				SOUTH CENTRAL COAST AIR BASIN				
- Remainder of County			X		San Luis Obispo County				X
Calaveras County			X		Santa Barbara County				X
El Dorado County (portion)			X		Ventura County			X	
Mariposa County			X		SOUTH COAST AIR BASIN			X	
Nevada County			X						
Placer County (portion)			X						
Plumas County			X						
Sierra County			X						
Tuolumne County			X						

* The area designated for hydrogen sulfide is a county or portion of a county

(1) 52 Federal Register 29384 (August 7, 1987)

(2) California Code of Regulations, title 17, section 60200(d)

FIGURE 10

2018
Area Designations for State Ambient Air Quality Standards
VISIBILITY REDUCING PARTICLES



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 10

California Ambient Air Quality Standards
Area Designation for Visibility Reducing Particles

	N	NA-T	U	A		N	NA-T	U	A
GREAT BASIN VALLEYS AIR BASIN			X		SACRAMENTO VALLEY AIR BASIN			X	
LAKE COUNTY AIR BASIN				X	SALTON SEA AIR BASIN			X	
LAKE TAHOE AIR BASIN			X		SAN DIEGO AIR BASIN			X	
MOJAVE DESERT AIR BASIN			X		SAN FRANCISCO BAY AREA AIR BASIN			X	
MOUNTAIN COUNTIES AIR BASIN			X		SAN JOAQUIN VALLEY AIR BASIN			X	
NORTH CENTRAL COAST AIR BASIN			X		SOUTH CENTRAL COAST AIR BASIN			X	
NORTH COAST AIR BASIN			X		SOUTH COAST AIR BASIN			X	
NORTHEAST PLATEAU AIR BASIN			X						

Area Designations for the National Ambient Air Quality Standards

The following maps and tables show the area designations for each pollutant with a national ambient air quality standard. Additional information about the federal area designations is available on the U.S. EPA website:

https://www.epa.gov/green-book

Over the last several years, U.S. EPA has been reviewing the levels of the various national standards. The agency has already promulgated new standard levels for some pollutants and is considering revising the levels for others. Information about the status of these reviews is available on the U.S. EPA website:

https://www.epa.gov/criteria-air-pollutants

Designation Categories

Suspended Particulate Matter (PM_{10}). The U.S. EPA uses three categories to designate areas with respect to PM_{10}:

- Attainment
- Nonattainment
- Unclassifiable

Ozone, Fine Suspended Particulate Matter ($PM_{2.5}$), Carbon Monoxide (CO), and Nitrogen Dioxide (NO_2). The U.S. EPA uses two categories to designate areas with respect to these standards:

- Nonattainment
- Unclassifiable/Attainment

The national 1-hour ozone standard was revoked effective June 15, 2005, and the area designations map reflects the 2015 national 8-hour ozone standard of 0.070 ppm. Original designations were finalized on August 3, 2018.

On December 14, 2012, the U.S. EPA established a new national annual primary $PM_{2.5}$ standard of 12.0 $\mu g/m^3$. New area designations reflecting this revised standard became final in December 2014. The current designation map reflects the most recently revised (2012) annual average standard of 12.0 $\mu g/m^3$ as well as the 24-hour standard of 35 $\mu g/m^3$, revised in 2006.

On January 22, 2010, the U.S. EPA established a new national 1-hour NO_2 standard of 100 parts per billion (ppb) and retained the annual average standard of 53 ppb. Designations for the primary NO_2 standard became effective on February 29, 2012. All areas of California meet this standard.

Sulfur Dioxide (SO_2). The U.S. EPA uses three categories to designate areas with respect to the 24-hour and annual average sulfur dioxide standards. These designation categories are:

- Nonattainment,
- Unclassifiable, and
- Attainment/Unclassifiable.

On June 2, 2010, the U.S. EPA established a new primary 1-hour SO_2 standard of 75 parts per billion (ppb). At the same time, U.S. EPA revoked the 24-hour and annual

average standards. Area designations for the 1-hour SO_2 standard were finalized on December 21, 2017 and are reflected in the area designations map.

Lead (particulate). The U.S. EPA promulgated a new rolling 3-month average lead standard in October 2008 of 0.15 µg/m^3. Designations were made for this standard in November 2010.

Designation Areas

From time to time, the boundaries of the California air basins have been changed to facilitate the planning process. CARB generally initiates these changes, and they are not always reflected in the U.S. EPA's area designations. For purposes of consistency, the maps in this attachment reflect area designation boundaries and nomenclature as promulgated by the U.S. EPA. In some cases, these may not be the same as those adopted by CARB. For example, the national area designations reflect the former Southeast Desert Air Basin. In accordance with Health and Safety Code section 39606.1, CARB redefined this area in 1996 to be the Mojave Desert Air Basin and Salton Sea Air Basin. The definitions and boundaries for all areas designated for the national standards can be found in Title 40, Code of Federal Regulations (CFR), Chapter I, Subchapter C, Part 81.305. They are available on the web at:

https://ecfr.io/Title-40/se40.20.81_1305

FIGURE 11

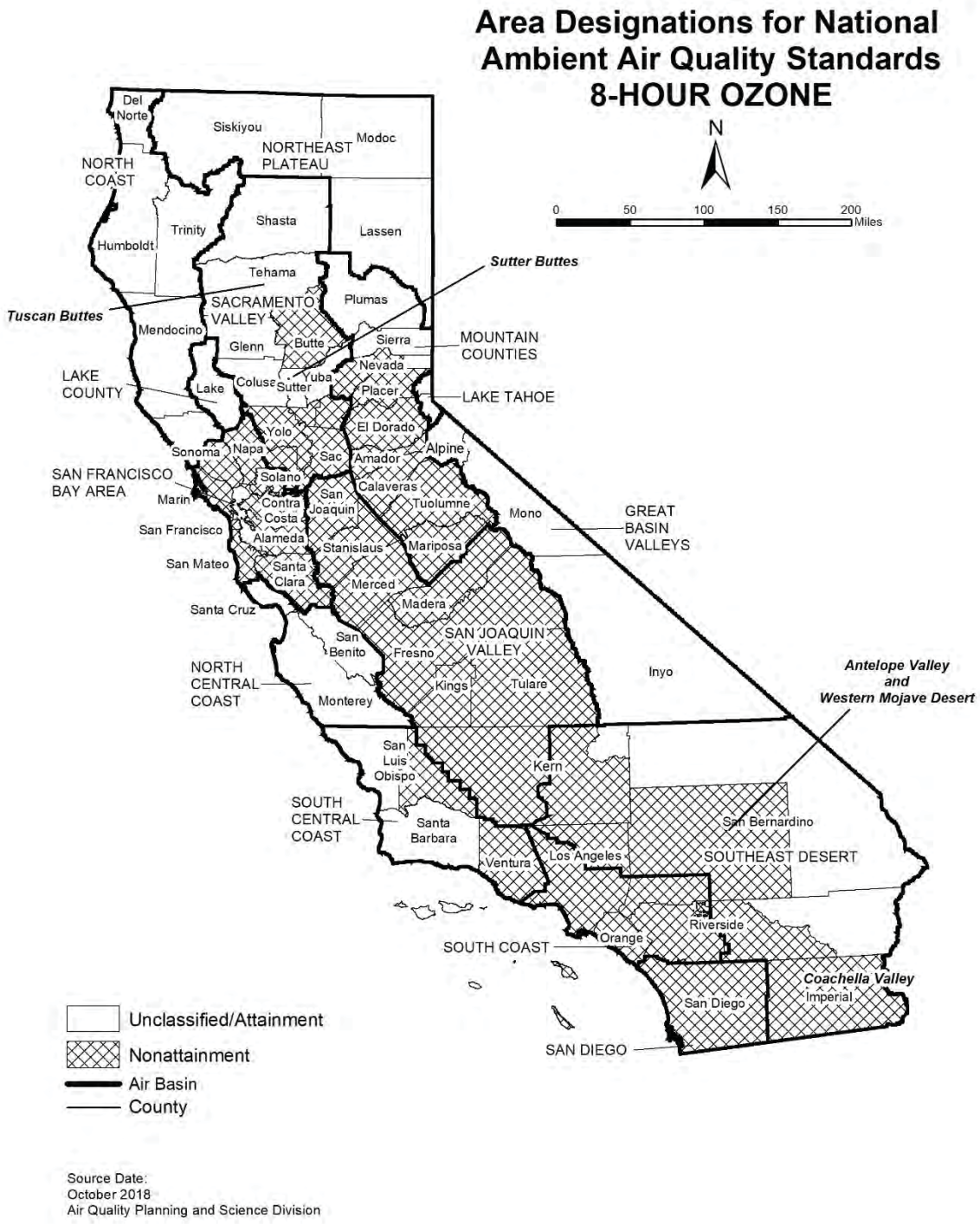

Area Designations for National Ambient Air Quality Standards
8-HOUR OZONE
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Trinity
Shasta
Lassen
Humboldt
Tehama
Sutter Buttes
Tuscan Buttes
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Lake
Colusa
Sutter
Yuba
Placer
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sac
Amador
Alpine
SAN FRANCISCO BAY AREA
Solano
Calaveras
Marin
Contra Costa
San Joaquin
Tuolumne
Mono
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
San Benito
SAN JOAQUIN VALLEY
Fresno
Inyo
NORTH CENTRAL COAST
Kings
Tulare
Antelope Valley and Western Mojave Desert
Monterey
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Orange
SOUTH COAST
Coachella Valley
Imperial
San Diego
SAN DIEGO
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 11

National Ambient Air Quality Standards
Area Designations for 8-Hour Ozone*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN (cont.)		
LAKE COUNTY AIR BASIN		X	Yolo County (2)	X	
LAKE TAHOE AIR BASIN		X	Yuba County		X
MOUNTAIN COUNTIES AIR BASIN			SAN DIEGO COUNTY	X	
Amador County	X		SAN FRANCISCO BAY AREA AIR BASIN	X	
Calaveras County	X		SAN JOAQUIN VALLEY AIR BASIN	X	
El Dorado County (portion) (2)	X		SOUTH CENTRAL COAST AIR BASIN (1)		
Mariposa County	X		San Luis Obispo County		
Nevada County			- Eastern San Luis Obispo County	X	
- Western Nevada County	X		- Remainder of County		X
- Remainder of County		X	Santa Barbara County		X
Placer County (portion) (2)	X		Ventura County		
Plumas County		X	- Area excluding Anacapa and San Nicolas Islands	X	
Sierra County		X	- Channel Islands (1)		X
Tuolumne County	X		SOUTH COAST AIR BASIN (1)	X	
NORTH CENTRAL COAST AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		
NORTH COAST AIR BASIN		X	Kern County (portion)	X	
NORTHEAST PLATEAU AIR BASIN		X	- Indian Wells Valley		X
SACRAMENTO VALLEY AIR BASIN			Imperial County	X	
Butte County	X		Los Angeles County (portion)	X	
Colusa County		X	Riverside County (portion)		
Glenn County		X	- Coachella Valley	X	
Sacramento Metro Area (2)	X		- Non-AQMA portion		X
Shasta County		X	San Bernardino County		
Sutter County			- Western portion (AQMA)	X	
- Sutter Buttes	X		- Eastern portion (non-AQMA)		X
- Southern portion of Sutter County (2)	X				
- Remainder of Sutter County		X			
Tehama County					
- Tuscan Buttes	X				
- Remainder of Tehama County		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

NOTE: This map and table reflect the 2015 8-hour ozone standard of 0.070 ppm.

(1) South Central Coast Air Basin Channel Islands:
Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.
Ventura County includes Anacapa and San Nicolas Islands.

South Coast Air Basin:
Los Angeles County includes San Clemente and Santa Catalina Islands.

(2) For this purpose, the Sacramento Metro Area comprises all of Sacramento and Yolo Counties, the Sacramento Valley Air Basin portion of Solano County, the southern portion of Sutter County, and the Sacramento Valley and Mountain Counties Air Basins portions of Placer and El Dorado counties.

FIGURE 12


Area Designations for National Ambient Air Quality Standards PM10
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTHEAST PLATEAU
NORTH COAST
Shasta
Lassen
Trinity
Humboldt
Tehema
SACRAMENTO VALLEY
Plumas
Mendocino
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Nevada
LAKE COUNTY
Colusa
Yuba
Lake
Sutter
Placer
LAKE TAHOE
Yolo
El Dorado
Alpine
Sacramento County
Sonoma
Napa
Sac
Amador
SAN FRANCISCO BAY AREA
Marin
Solano
Calaveras
Mono
Mono Basin
San Joaquin
Contra Costa
Tuolumne
Mammoth Lake
GREAT BASIN VALLEYS
San Francisco
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Inyo
Santa Cruz
San Benito
Fresno
SAN JOAQUIN VALLEY
Owens Valley
Coso Junction
Trona
NORTH CENTRAL COAST
Monterey
Kings
Tulare
San Luis Obispo
Kern
Indian Wells Valley
San Bernardino
SOUTH CENTRAL COAST
Santa Barbara
Ventura
Los Angeles
SOUTHEAST DESERT
Riverside
Coachella Valley
Orange
SOUTH COAST
Imperial
San Diego
SAN DIEGO COUNTY
Unclassified
Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 12

National Ambient Air Quality Standards
Area Designations for Suspended Particulate Matter (PM10)*

	N	U	A		N	U	A
GREAT BASIN VALLEYS AIR BASIN				SAN DIEGO COUNTY		X	
Alpine County		X		SAN FRANCISCO BAY AREA AIR BASIN		X	
Inyo County				SAN JOAQUIN VALLEY AIR BASIN			X
- Owens Valley Planning Area	X			SOUTH CENTRAL COAST AIR BASIN		X	
- Coso Junction			X	SOUTH COAST AIR BASIN			X
- Remainder of County		X		SOUTHEAST DESERT AIR BASIN			
Mono County				Eastern Kern County			
- Mammoth Lake Planning Area			X	- Indian Wells Valley			X
- Mono Lake Basin	X			- Portion within San Joaquin Valley Planning Area	X		
- Remainder of County		X		- Remainder of County		X	
LAKE COUNTY AIR BASIN		X		Imperial County			
LAKE TAHOE AIR BASIN		X		- Imperial Valley Planning Area	X		
MOUNTAIN COUNTIES AIR BASIN				- Remainder of County		X	
Placer County (portion) (2)		X		Los Angeles County (portion)		X	
Remainder of Air Basin		X		Riverside County (portion)			
NORTH CENTRAL COAST AIR BASIN		X		- Coachella Valley (3)	X		
NORTH COAST AIR BASIN		X		- Non-AQMA portion		X	
NORTHEAST PLATEAU AIR BASIN		X		San Bernardino County			
SACRAMENTO VALLEY AIR BASIN				- Trona	X		
Butte County		X		- Remainder of County	X		
Colusa County		X					
Glenn County		X					
Placer County (portion) (2)		X					
Sacramento County (1)			X				
Shasta County		X					
Solano County (portion)		X					
Sutter County		X					
Tehama County		X					
Yolo County		X					
Yuba County		X					

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.
(1) Air quality in Sacramento County meets the national PM10 standards. The request for redesignation to attainment was approved by U.S. EPA in September 2013.
(2) U.S. EPA designation puts the Sacramento Valley Air Basin portion of Placer County in the Mountain Counties Air Basin.
(3) Air quality in Coachella Valley meets the national PM10 standards. A request for redesignation to attainment has been submitted to U.S. EPA.

FIGURE 13


Area Designations for National Ambient Air Quality Standards PM2.5
N
0 50 100 150 200 Miles
Del Norte
Siskiyou
Modoc
NORTH COAST
NORTHEAST PLATEAU
Humboldt
Trinity
Shasta
Lassen
Tehama
SACRAMENTO VALLEY
Plumas
Glenn
Butte
Sierra
MOUNTAIN COUNTIES
Mendocino
Nevada
LAKE COUNTY
Colusa
Yuba
Placer
Lake
Sutter
LAKE TAHOE
Yolo
El Dorado
Sonoma
Napa
Sacramento
Alpine
Amador
Solano
Calaveras
SAN FRANCISCO BAY AREA
Marin
Tuolumne
GREAT BASIN VALLEYS
Contra Costa
San Joaquin
Mono
Alameda
Stanislaus
Mariposa
San Mateo
Santa Clara
Merced
Madera
Santa Cruz
Fresno
NORTH CENTRAL COAST
San Benito
SAN JOAQUIN VALLEY
Inyo
Tulare
Monterey
Kings
San Luis Obispo
Kern
SOUTH CENTRAL COAST
Santa Barbara
San Bernardino
SOUTHEAST DESERT
Ventura
Los Angeles
Orange
Riverside
SOUTH COAST
San Diego
Imperial
SAN DIEGO COUNTY
Unclassified/Attainment
Nonattainment
Air Basin
County
Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 13

National Ambient Air Quality Standards
Area Designations for Fine Particulate Matter (PM2.5)*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE COUNTY AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN (2)	X	
LAKE TAHOE AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN	X	
MOUNTAIN COUNTIES AIR BASIN			SOUTH CENTRAL COAST AIR BASIN		X
Plumas County			SOUTH COAST AIR BASIN (3)	X	
- Portola Valley Portion of Plumas	X		SOUTHEAST DESERT AIR BASIN		
- Remainder of Plumas County		X	Imperial County (portion) (4)	X	
Remainder of Air Basin		X	Remainder of Air Basin		X
NORTH CENTRAL COAST AIR BASIN		X			
NORTH COAST AIR BASIN		X			
NORTHEAST PLATEAU AIR BASIN		X			
SACRAMENTO VALLEY AIR BASIN					
Sacramento Metro Area (1)	X				
Sutter County		X			
Yuba County (portion)		X			
Remainder of Air Basin		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305. This map reflects the 2006 24-hour PM2.5 standard as well as the 1997 and 2012 PM2.5 annual standards.

(1) For this purpose, Sacramento Metro Area comprises all of Sacramento and portions of El Dorado, Placer, Solano, and Yolo Counties. Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

(2) Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

(3) Those lands of the Santa Rosa Band of Cahulla Mission Indians in Riverside County are designated Unclassifiable/Attainment.

(4) That portion of Imperial County encompassing the urban and surrounding areas of Brawley, Calexico, El Centro, Heber, Holtville, Imperial, Seeley, and Westmorland. Air quality in this area meets the national PM2.5 standards. A Determination of Attainment for the 2006 24-hour PM2.5 standard was made by U.S. EPA in June 2017.

FIGURE 14



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 14

National Ambient Air Quality Standards
Area Designations for Carbon Monoxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE TAHOE AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 15



Source Date:
October 2018
Air Quality Planning and Science Division

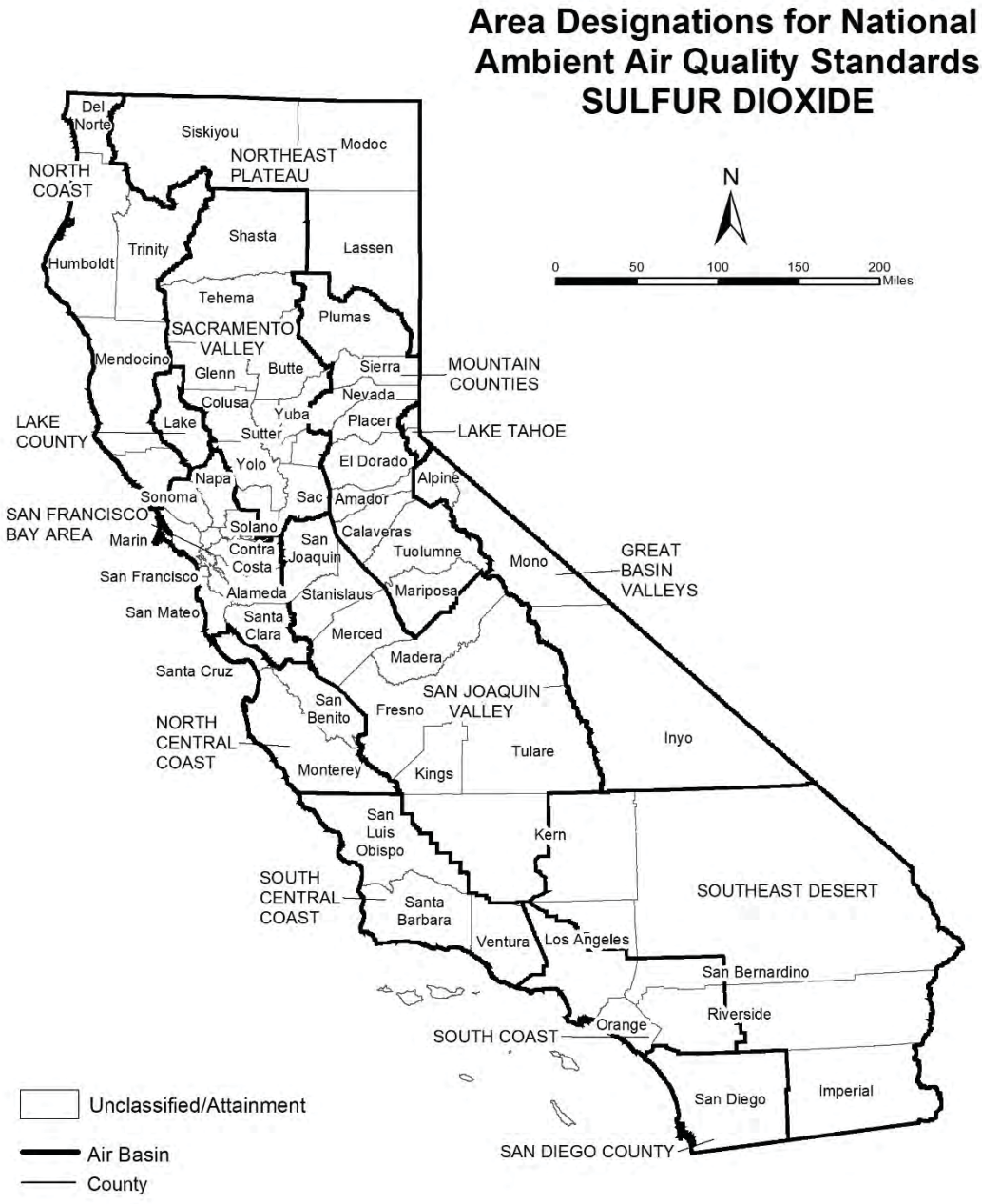
TABLE 15

National Ambient Air Quality Standards
Area Designations for Nitrogen Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SACRAMENTO VALLEY AIR BASIN		X
LAKE COUNTY AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE TAHOE AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

FIGURE 16



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 16

National Ambient Air Quality Standards
Area Designations for Sulfur Dioxide*

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		
LAKE COUNTY AIR BASIN		X	San Luis Obispo County		X
LAKE TAHOE AIR BASIN		X	Santa Barbara County		X
MOUNTAIN COUNTIES AIR BASIN		X	Ventura County		X
NORTH CENTRAL COAST AIR BASIN		X	Channel Islands (1)		X
NORTH COAST AIR BASIN		X	SOUTH COAST AIR BASIN		X
NORTHEAST PLATEAU AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		
SACRAMENTO VALLEY AIR BASIN		X	Imperial County		X
SAN DIEGO COUNTY		X	Remainder of Air Basin		X
SAN FRANCISCO BAY AREA AIR BASIN		X			
SAN JOAQUIN VALLEY AIR BASIN					
Fresno County		X			
Kern County (portion)		X			
Kings County		X			
Madera County		X			
Merced County		X			
San Joaquin County		X			
Stanislaus County		X			
Tulare County		X			

* Definitions and references for all areas can be found in 40 CFR, Chapter I, Part 81.305.

NOTE: This map and table reflect the 2010 1-hour SO_2 standard of 75 ppb.

(1) South Central Coast Air Basin Channel Islands:

Santa Barbara County includes Santa Cruz, San Miguel, Santa Rosa, and Santa Barbara Islands.

Ventura County includes Anacapa and San Nicolas Islands.

Note that the San Clemente and Santa Catalina Islands are considered part of Los Angeles County, and therefore, are included as part of the South Coast Air Basin.

FIGURE 17



Source Date:
October 2018
Air Quality Planning and Science Division

TABLE 17

National Ambient Air Quality Standards
Area Designations for Lead (particulate)

	N	U/A		N	U/A
GREAT BASIN VALLEYS AIR BASIN		X	SAN DIEGO COUNTY		X
LAKE COUNTY AIR BASIN		X	SAN FRANCISCO BAY AREA AIR BASIN		X
LAKE TAHOE AIR BASIN		X	SAN JOAQUIN VALLEY AIR BASIN		X
MOUNTAIN COUNTIES AIR BASIN		X	SOUTH CENTRAL COAST AIR BASIN		X
NORTH CENTRAL COAST AIR BASIN		X	SOUTH COAST AIR BASIN		
NORTH COAST AIR BASIN		X	Los Angeles County (portion) (1)	X	
NORTHEAST PLATEAU AIR BASIN		X	Remainder of Air Basin		X
SACRAMENTO VALLEY AIR BASIN		X	SOUTHEAST DESERT AIR BASIN		X

(1) Portion of County in Air Basin, not including Channel Islands

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUTS

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

14338 Edelweiss Sustainable Farms

Riverside-Mojave Desert MDAQMD County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.71	1000sqft	0.57	24,709.00	0
Manufacturing	509.10	1000sqft	11.69	509,103.00	0
Parking Lot	12.84	Acre	12.84	559,310.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage based on project description

Construction Phase - Project schedule based on similar projects.

Off-road Equipment - Assumed equipment will operate 8 hours/day.

Off-road Equipment - Assumed all equipment will operate 8 hours/day. Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment -

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading - Based on total project site of 33.84 ac

Vehicle Trips - Based on project trip generation rates.

Energy Use - Project will not utilize natural gas. Estimated electrical demand based on data from Project team.

Water And Wastewater - Assumes 100 af/yr for cannabis cultivation.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	440.00	370.00
tblConstructionPhase	NumDays	45.00	35.00
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	NT24E	5.02	267.86
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24NG	3.43	0.00
tblEnergyUse	T24NG	15.20	0.00
tblGrading	AcresOfGrading	105.00	33.84
tblGrading	AcresOfGrading	35.00	33.84
tblLandUse	LandUseSquareFeet	24,710.00	24,709.00
tblLandUse	LandUseSquareFeet	509,100.00	509,103.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	212.00	247.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.40
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	2.21	11.25
tblVehicleTrips	ST_TR	6.42	3.93
tblVehicleTrips	SU_TR	0.70	11.25
tblVehicleTrips	SU_TR	5.09	3.93
tblVehicleTrips	WD_TR	9.74	11.25
tblWater	IndoorWaterUseRate	117,729,375.00	32,590,000.00

2.0 Emissions Summary

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	8.0947	66.6856	70.1563	0.1774	21.8849	2.9665	24.1709	10.3792	2.7499	12.4823	0.0000	17,683.3794	17,683.3794	2.7808	0.6266	17,939.6320
2023	119.2046	38.9089	60.6277	0.1487	8.2881	1.9154	10.2034	2.2229	1.7862	4.0091	0.0000	14,965.3041	14,965.3041	1.5751	0.6172	15,188.6119
Maximum	**119.2046**	**66.6856**	**70.1563**	**0.1774**	**21.8849**	**2.9665**	**24.1709**	**10.3792**	**2.7499**	**12.4823**	**0.0000**	**17,683.3794**	**17,683.3794**	**2.7808**	**0.6266**	**17,939.6320**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	8.0947	66.6856	70.1563	0.1774	21.8849	2.9665	24.1709	10.3792	2.7499	12.4823	0.0000	17,683.3794	17,683.3794	2.7808	0.6266	17,939.6320
2023	119.2046	38.9089	60.6277	0.1487	8.2881	1.9154	10.2034	2.2229	1.7862	4.0091	0.0000	14,965.3041	14,965.3041	1.5751	0.6172	15,188.6119
Maximum	**119.2046**	**66.6856**	**70.1563**	**0.1774**	**21.8849**	**2.9665**	**24.1709**	**10.3792**	**2.7499**	**12.4823**	**0.0000**	**17,683.3794**	**17,683.3794**	**2.7808**	**0.6266**	**17,939.6320**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Summer

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	7.6851	10.5911	78.8095	0.1815	17.9560	0.1388	18.0948	4.7908	0.1302	4.9209		18,670.1721	18,670.1721	0.8709	0.8401	18,942.3056
Total	**22.8078**	**10.5916**	**78.8653**	**0.1815**	**17.9560**	**0.1390**	**18.0950**	**4.7908**	**0.1304**	**4.9211**		**18,670.2917**	**18,670.2917**	**0.8712**	**0.8401**	**18,942.4330**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	7.6851	10.5911	78.8095	0.1815	17.9560	0.1388	18.0948	4.7908	0.1302	4.9209		18,670.1721	18,670.1721	0.8709	0.8401	18,942.3056
Total	**22.8078**	**10.5916**	**78.8653**	**0.1815**	**17.9560**	**0.1390**	**18.0950**	**4.7908**	**0.1304**	**4.9211**		**18,670.2917**	**18,670.2917**	**0.8712**	**0.8401**	**18,942.4330**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/29/2022	3/18/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	
4	Paving	Paving	3/1/2023	8/4/2023	5	113	
5	Architectural Coating	Architectural Coating	3/1/2023	8/4/2023	5	113	

Acres of Grading (Site Preparation Phase): 33.84

Acres of Grading (Grading Phase): 33.84

Acres of Paving: 12.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 800,718; Non-Residential Outdoor: 266,906; Striped Parking Area: 33,559 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	1	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	97	0.37
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	457.00	179.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.6550	0.0000	21.6550	10.3182	0.0000	10.3182			0.0000			0.0000
Off-Road	4.0309	39.2966	20.6839	0.0380		2.2849	2.2849		2.1021	2.1021		3,686.3768	3,686.3768	1.1923		3,716.1830
Total	**4.0309**	**39.2966**	**20.6839**	**0.0380**	**21.6550**	**2.2849**	**23.9399**	**10.3182**	**2.1021**	**12.4203**		**3,686.3768**	**3,686.3768**	**1.1923**		**3,716.1830**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0766	0.0513	0.8081	2.0800e-003	0.2299	1.1300e-003	0.2311	0.0610	1.0400e-003	0.0620		212.0974	212.0974	4.9600e-003	5.0700e-003	213.7325
Total	**0.0766**	**0.0513**	**0.8081**	**2.0800e-003**	**0.2299**	**1.1300e-003**	**0.2311**	**0.0610**	**1.0400e-003**	**0.0620**		**212.0974**	**212.0974**	**4.9600e-003**	**5.0700e-003**	**213.7325**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.6550	0.0000	21.6550	10.3182	0.0000	10.3182			0.0000			0.0000
Off-Road	4.0309	39.2966	20.6839	0.0380		2.2849	2.2849		2.1021	2.1021	0.0000	3,686.3768	3,686.3768	1.1923		3,716.1830
Total	**4.0309**	**39.2966**	**20.6839**	**0.0380**	**21.6550**	**2.2849**	**23.9399**	**10.3182**	**2.1021**	**12.4203**	**0.0000**	**3,686.3768**	**3,686.3768**	**1.1923**		**3,716.1830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0766	0.0513	0.8081	2.0800e-003	0.2299	1.1300e-003	0.2311	0.0610	1.0400e-003	0.0620		212.0974	212.0974	4.9600e-003	5.0700e-003	213.7325
Total	**0.0766**	**0.0513**	**0.8081**	**2.0800e-003**	**0.2299**	**1.1300e-003**	**0.2311**	**0.0610**	**1.0400e-003**	**0.0620**		**212.0974**	**212.0974**	**4.9600e-003**	**5.0700e-003**	**213.7325**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0254	0.0000	1.0254	0.1107	0.0000	0.1107			0.0000			0.0000
Off-Road	3.3209	36.5612	27.9683	0.0620		1.4632	1.4632		1.3462	1.3462		6,007.0211	6,007.0211	1.9428		6,055.5909
Total	**3.3209**	**36.5612**	**27.9683**	**0.0620**	**1.0254**	**1.4632**	**2.4886**	**0.1107**	**1.3462**	**1.4569**		**6,007.0211**	**6,007.0211**	**1.9428**		**6,055.5909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0851	0.0570	0.8979	2.3200e-003	0.2555	1.2600e-003	0.2567	0.0678	1.1600e-003	0.0689		235.6637	235.6637	5.5200e-003	5.6300e-003	237.4805
Total	**0.0851**	**0.0570**	**0.8979**	**2.3200e-003**	**0.2555**	**1.2600e-003**	**0.2567**	**0.0678**	**1.1600e-003**	**0.0689**		**235.6637**	**235.6637**	**5.5200e-003**	**5.6300e-003**	**237.4805**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0254	0.0000	1.0254	0.1107	0.0000	0.1107			0.0000			0.0000
Off-Road	3.3209	36.5612	27.9683	0.0620		1.4632	1.4632		1.3462	1.3462	0.0000	6,007.0210	6,007.0210	1.9428		6,055.5909
Total	**3.3209**	**36.5612**	**27.9683**	**0.0620**	**1.0254**	**1.4632**	**2.4886**	**0.1107**	**1.3462**	**1.4569**	**0.0000**	**6,007.0210**	**6,007.0210**	**1.9428**		**6,055.5909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0851	0.0570	0.8979	2.3200e-003	0.2555	1.2600e-003	0.2567	0.0678	1.1600e-003	0.0689		235.6637	235.6637	5.5200e-003	5.6300e-003	237.4805
Total	**0.0851**	**0.0570**	**0.8979**	**2.3200e-003**	**0.2555**	**1.2600e-003**	**0.2567**	**0.0678**	**1.1600e-003**	**0.0689**		**235.6637**	**235.6637**	**5.5200e-003**	**5.6300e-003**	**237.4805**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4602	21.4268	18.1788	0.0288		1.3688	1.3688		1.2761	1.2761		2,737.3882	2,737.3882	0.6712		2,754.1669
Total	**2.4602**	**21.4268**	**18.1788**	**0.0288**		**1.3688**	**1.3688**		**1.2761**	**1.2761**		**2,737.3882**	**2,737.3882**	**0.6712**		**2,754.1669**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2846	7.3394	2.5954	0.0313	1.0969	0.1045	1.2014	0.3159	0.1000	0.4158		3,318.3905	3,318.3905	0.0353	0.4923	3,465.9642
Worker	1.9440	1.3013	20.5159	0.0529	5.8373	0.0288	5.8661	1.5480	0.0265	1.5745		5,384.9160	5,384.9160	0.1260	0.1287	5,426.4295
Total	**2.2286**	**8.6407**	**23.1113**	**0.0842**	**6.9342**	**0.1333**	**7.0674**	**1.8638**	**0.1265**	**1.9903**		**8,703.3065**	**8,703.3065**	**0.1613**	**0.6210**	**8,892.3937**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4602	21.4268	18.1788	0.0288		1.3688	1.3688		1.2761	1.2761	0.0000	2,737.3882	2,737.3882	0.6712		2,754.1669
Total	**2.4602**	**21.4268**	**18.1788**	**0.0288**		**1.3688**	**1.3688**		**1.2761**	**1.2761**	**0.0000**	**2,737.3882**	**2,737.3882**	**0.6712**		**2,754.1669**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2846	7.3394	2.5954	0.0313	1.0969	0.1045	1.2014	0.3159	0.1000	0.4158		3,318.3905	3,318.3905	0.0353	0.4923	3,465.9642
Worker	1.9440	1.3013	20.5159	0.0529	5.8373	0.0288	5.8661	1.5480	0.0265	1.5745		5,384.9160	5,384.9160	0.1260	0.1287	5,426.4295
Total	**2.2286**	**8.6407**	**23.1113**	**0.0842**	**6.9342**	**0.1333**	**7.0674**	**1.8638**	**0.1265**	**1.9903**		**8,703.3065**	**8,703.3065**	**0.1613**	**0.6210**	**8,892.3937**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2788	19.8737	18.0019	0.0288		1.2286	1.2286		1.1450	1.1450		2,737.6346	2,737.6346	0.6669		2,754.3057
Total	**2.2788**	**19.8737**	**18.0019**	**0.0288**		**1.2286**	**1.2286**		**1.1450**	**1.1450**		**2,737.6346**	**2,737.6346**	**0.6669**		**2,754.3057**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1989	5.6906	2.3853	0.0301	1.0969	0.0488	1.1456	0.3158	0.0467	0.3625		3,186.3538	3,186.3538	0.0327	0.4710	3,327.5293
Worker	1.8028	1.1491	18.8657	0.0512	5.8373	0.0271	5.8644	1.5480	0.0249	1.5729		5,242.4861	5,242.4861	0.1129	0.1187	5,280.6780
Total	**2.0017**	**6.8396**	**21.2509**	**0.0813**	**6.9341**	**0.0759**	**7.0100**	**1.8638**	**0.0716**	**1.9354**		**8,428.8399**	**8,428.8399**	**0.1456**	**0.5897**	**8,608.2073**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2788	19.8737	18.0019	0.0288		1.2286	1.2286		1.1450	1.1450	0.0000	2,737.6346	2,737.6346	0.6669		2,754.3057
Total	**2.2788**	**19.8737**	**18.0019**	**0.0288**		**1.2286**	**1.2286**		**1.1450**	**1.1450**	**0.0000**	**2,737.6346**	**2,737.6346**	**0.6669**		**2,754.3057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1989	5.6906	2.3853	0.0301	1.0969	0.0488	1.1456	0.3158	0.0467	0.3625		3,186.3538	3,186.3538	0.0327	0.4710	3,327.5293
Worker	1.8028	1.1491	18.8657	0.0512	5.8373	0.0271	5.8644	1.5480	0.0249	1.5729		5,242.4861	5,242.4861	0.1129	0.1187	5,280.6780
Total	**2.0017**	**6.8396**	**21.2509**	**0.0813**	**6.9341**	**0.0759**	**7.0100**	**1.8638**	**0.0716**	**1.9354**		**8,428.8399**	**8,428.8399**	**0.1456**	**0.5897**	**8,608.2073**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3305**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0592	0.0377	0.6192	1.6800e-003	0.1916	8.9000e-004	0.1925	0.0508	8.2000e-004	0.0516		172.0729	172.0729	3.7100e-003	3.9000e-003	173.3264
Total	**0.0592**	**0.0377**	**0.6192**	**1.6800e-003**	**0.1916**	**8.9000e-004**	**0.1925**	**0.0508**	**8.2000e-004**	**0.0516**		**172.0729**	**172.0729**	**3.7100e-003**	**3.9000e-003**	**173.3264**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3305**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0592	0.0377	0.6192	1.6800e-003	0.1916	8.9000e-004	0.1925	0.0508	8.2000e-004	0.0516		172.0729	172.0729	3.7100e-003	3.9000e-003	173.3264
Total	**0.0592**	**0.0377**	**0.6192**	**1.6800e-003**	**0.1916**	**8.9000e-004**	**0.1925**	**0.0508**	**8.2000e-004**	**0.0516**		**172.0729**	**172.0729**	**3.7100e-003**	**3.9000e-003**	**173.3264**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**113.1755**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3590	0.2288	3.7566	0.0102	1.1624	5.3900e-003	1.1677	0.3082	4.9600e-003	0.3132		1,043.9086	1,043.9086	0.0225	0.0236	1,051.5136
Total	**0.3590**	**0.2288**	**3.7566**	**0.0102**	**1.1624**	**5.3900e-003**	**1.1677**	**0.3082**	**4.9600e-003**	**0.3132**		**1,043.9086**	**1,043.9086**	**0.0225**	**0.0236**	**1,051.5136**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**113.1755**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3590	0.2288	3.7566	0.0102	1.1624	5.3900e-003	1.1677	0.3082	4.9600e-003	0.3132		1,043.9086	1,043.9086	0.0225	0.0236	1,051.5136
Total	**0.3590**	**0.2288**	**3.7566**	**0.0102**	**1.1624**	**5.3900e-003**	**1.1677**	**0.3082**	**4.9600e-003**	**0.3132**		**1,043.9086**	**1,043.9086**	**0.0225**	**0.0236**	**1,051.5136**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	7.6851	10.5911	78.8095	0.1815	17.9560	0.1388	18.0948	4.7908	0.1302	4.9209		18,670.1721	18,670.1721	0.8709	0.8401	18,942.3056
Unmitigated	7.6851	10.5911	78.8095	0.1815	17.9560	0.1388	18.0948	4.7908	0.1302	4.9209		18,670.1721	18,670.1721	0.8709	0.8401	18,942.3056

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	277.99	277.99	277.99	767,474	767,474
Manufacturing	2,000.76	2,000.76	2000.76	7,729,880	7,729,880
Parking Lot	0.00	0.00	0.00		
Total	2,278.75	2,278.75	2,278.75	8,497,354	8,497,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Manufacturing	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Unmitigated	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.6217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1700e-003	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Total	**15.1227**	**5.1000e-004**	**0.0558**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1196**	**0.1196**	**3.1000e-004**		**0.1275**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.6217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1700e-003	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Total	**15.1227**	**5.1000e-004**	**0.0558**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1196**	**0.1196**	**3.1000e-004**		**0.1275**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

14338 Edelweiss Sustainable Farms

Riverside-Mojave Desert MDAQMD County, Winter

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.71	1000sqft	0.57	24,709.00	0
Manufacturing	509.10	1000sqft	11.69	509,103.00	0
Parking Lot	12.84	Acre	12.84	559,310.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage based on project description

Construction Phase - Project schedule based on similar projects.

Off-road Equipment - Assumed equipment will operate 8 hours/day.

Off-road Equipment - Assumed all equipment will operate 8 hours/day. Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment -

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading - Based on total project site of 33.84 ac

Vehicle Trips - Based on project trip generation rates.

Energy Use - Project will not utilize natural gas. Estimated electrical demand based on data from Project team.

Water And Wastewater - Assumes 100 af/yr for cannabis cultivation.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	440.00	370.00
tblConstructionPhase	NumDays	45.00	35.00
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	NT24E	5.02	267.86
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24NG	3.43	0.00
tblEnergyUse	T24NG	15.20	0.00
tblGrading	AcresOfGrading	105.00	33.84
tblGrading	AcresOfGrading	35.00	33.84
tblLandUse	LandUseSquareFeet	24,710.00	24,709.00
tblLandUse	LandUseSquareFeet	509,100.00	509,103.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	212.00	247.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.40
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	2.21	11.25
tblVehicleTrips	ST_TR	6.42	3.93
tblVehicleTrips	SU_TR	0.70	11.25
tblVehicleTrips	SU_TR	5.09	3.93
tblVehicleTrips	WD_TR	9.74	11.25
tblWater	IndoorWaterUseRate	117,729,375.00	32,590,000.00

2.0 Emissions Summary

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction (Maximum Daily Emission)

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.9685	67.1303	66.0943	0.1722	21.8849	2.9668	24.1709	10.3792	2.7502	12.4823	0.0000	17,156.7184	17,156.7184	2.7780	0.6307	17,414.1242
2023	119.0727	39.3075	56.2219	0.1429	8.2881	1.9155	10.2036	2.2229	1.7863	4.0092	0.0000	14,365.9466	14,365.9466	1.5725	0.6222	14,590.6850
Maximum	**119.0727**	**67.1303**	**66.0943**	**0.1722**	**21.8849**	**2.9668**	**24.1709**	**10.3792**	**2.7502**	**12.4823**	**0.0000**	**17,156.7184**	**17,156.7184**	**2.7780**	**0.6307**	**17,414.1242**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2022	7.9685	67.1303	66.0943	0.1722	21.8849	2.9668	24.1709	10.3792	2.7502	12.4823	0.0000	17,156.7184	17,156.7184	2.7780	0.6307	17,414.1242
2023	119.0727	39.3075	56.2219	0.1429	8.2881	1.9155	10.2036	2.2229	1.7863	4.0092	0.0000	14,365.9466	14,365.9466	1.5725	0.6222	14,590.6850
Maximum	**119.0727**	**67.1303**	**66.0943**	**0.1722**	**21.8849**	**2.9668**	**24.1709**	**10.3792**	**2.7502**	**12.4823**	**0.0000**	**17,156.7184**	**17,156.7184**	**2.7780**	**0.6307**	**17,414.1242**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.5893	11.2243	69.2451	0.1684	17.9560	0.1389	18.0949	4.7908	0.1302	4.9210		17,329.5967	17,329.5967	0.8874	0.8577	17,607.3848
Total	**21.7120**	**11.2248**	**69.3009**	**0.1684**	**17.9560**	**0.1391**	**18.0951**	**4.7908**	**0.1304**	**4.9212**		**17,329.7163**	**17,329.7163**	**0.8877**	**0.8577**	**17,607.5123**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.5893	11.2243	69.2451	0.1684	17.9560	0.1389	18.0949	4.7908	0.1302	4.9210		17,329.5967	17,329.5967	0.8874	0.8577	17,607.3848
Total	**21.7120**	**11.2248**	**69.3009**	**0.1684**	**17.9560**	**0.1391**	**18.0951**	**4.7908**	**0.1304**	**4.9212**		**17,329.7163**	**17,329.7163**	**0.8877**	**0.8577**	**17,607.5123**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/29/2022	3/18/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	
4	Paving	Paving	3/1/2023	8/4/2023	5	113	
5	Architectural Coating	Architectural Coating	3/1/2023	8/4/2023	5	113	

Acres of Grading (Site Preparation Phase): 33.84

Acres of Grading (Grading Phase): 33.84

Acres of Paving: 12.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 800,718; Non-Residential Outdoor: 266,906; Striped Parking Area: 33,559 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	1	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	2	8.00	367	0.48

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	97	0.37
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	457.00	179.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.6550	0.0000	21.6550	10.3182	0.0000	10.3182			0.0000			0.0000
Off-Road	4.0309	39.2966	20.6839	0.0380		2.2849	2.2849		2.1021	2.1021		3,686.3768	3,686.3768	1.1923		3,716.1830
Total	**4.0309**	**39.2966**	**20.6839**	**0.0380**	**21.6550**	**2.2849**	**23.9399**	**10.3182**	**2.1021**	**12.4203**		**3,686.3768**	**3,686.3768**	**1.1923**		**3,716.1830**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0723	0.0532	0.6510	1.8900e-003	0.2299	1.1300e-003	0.2311	0.0610	1.0400e-003	0.0620		192.0812	192.0812	4.8800e-003	5.1900e-003	193.7497
Total	**0.0723**	**0.0532**	**0.6510**	**1.8900e-003**	**0.2299**	**1.1300e-003**	**0.2311**	**0.0610**	**1.0400e-003**	**0.0620**		**192.0812**	**192.0812**	**4.8800e-003**	**5.1900e-003**	**193.7497**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					21.6550	0.0000	21.6550	10.3182	0.0000	10.3182			0.0000			0.0000
Off-Road	4.0309	39.2966	20.6839	0.0380		2.2849	2.2849		2.1021	2.1021	0.0000	3,686.3768	3,686.3768	1.1923		3,716.1830
Total	**4.0309**	**39.2966**	**20.6839**	**0.0380**	**21.6550**	**2.2849**	**23.9399**	**10.3182**	**2.1021**	**12.4203**	**0.0000**	**3,686.3768**	**3,686.3768**	**1.1923**		**3,716.1830**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0723	0.0532	0.6510	1.8900e-003	0.2299	1.1300e-003	0.2311	0.0610	1.0400e-003	0.0620		192.0812	192.0812	4.8800e-003	5.1900e-003	193.7497
Total	**0.0723**	**0.0532**	**0.6510**	**1.8900e-003**	**0.2299**	**1.1300e-003**	**0.2311**	**0.0610**	**1.0400e-003**	**0.0620**		**192.0812**	**192.0812**	**4.8800e-003**	**5.1900e-003**	**193.7497**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0254	0.0000	1.0254	0.1107	0.0000	0.1107			0.0000			0.0000
Off-Road	3.3209	36.5612	27.9683	0.0620		1.4632	1.4632		1.3462	1.3462		6,007.0211	6,007.0211	1.9428		6,055.5909
Total	**3.3209**	**36.5612**	**27.9683**	**0.0620**	**1.0254**	**1.4632**	**2.4886**	**0.1107**	**1.3462**	**1.4569**		**6,007.0211**	**6,007.0211**	**1.9428**		**6,055.5909**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0803	0.0591	0.7233	2.1000e-003	0.2555	1.2600e-003	0.2567	0.0678	1.1600e-003	0.0689		213.4235	213.4235	5.4200e-003	5.7700e-003	215.2774
Total	**0.0803**	**0.0591**	**0.7233**	**2.1000e-003**	**0.2555**	**1.2600e-003**	**0.2567**	**0.0678**	**1.1600e-003**	**0.0689**		**213.4235**	**213.4235**	**5.4200e-003**	**5.7700e-003**	**215.2774**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					1.0254	0.0000	1.0254	0.1107	0.0000	0.1107			0.0000			0.0000
Off-Road	3.3209	36.5612	27.9683	0.0620		1.4632	1.4632		1.3462	1.3462	0.0000	6,007.0210	6,007.0210	1.9428		6,055.5909
Total	**3.3209**	**36.5612**	**27.9683**	**0.0620**	**1.0254**	**1.4632**	**2.4886**	**0.1107**	**1.3462**	**1.4569**	**0.0000**	**6,007.0210**	**6,007.0210**	**1.9428**		**6,055.5909**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0803	0.0591	0.7233	2.1000e-003	0.2555	1.2600e-003	0.2567	0.0678	1.1600e-003	0.0689		213.4235	213.4235	5.4200e-003	5.7700e-003	215.2774
Total	**0.0803**	**0.0591**	**0.7233**	**2.1000e-003**	**0.2555**	**1.2600e-003**	**0.2567**	**0.0678**	**1.1600e-003**	**0.0689**		**213.4235**	**213.4235**	**5.4200e-003**	**5.7700e-003**	**215.2774**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4602	21.4268	18.1788	0.0288		1.3688	1.3688		1.2761	1.2761		2,737.3882	2,737.3882	0.6712		2,754.1669
Total	**2.4602**	**21.4268**	**18.1788**	**0.0288**		**1.3688**	**1.3688**		**1.2761**	**1.2761**		**2,737.3882**	**2,737.3882**	**0.6712**		**2,754.1669**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2721	7.7325	2.6968	0.0313	1.0969	0.1048	1.2017	0.3159	0.1002	0.4161		3,322.1577	3,322.1577	0.0348	0.4932	3,469.9996
Worker	1.8350	1.3507	16.5272	0.0479	5.8373	0.0288	5.8661	1.5480	0.0265	1.5745		4,876.7280	4,876.7280	0.1239	0.1318	4,919.0895
Total	**2.1071**	**9.0832**	**19.2239**	**0.0793**	**6.9342**	**0.1336**	**7.0677**	**1.8638**	**0.1267**	**1.9906**		**8,198.8857**	**8,198.8857**	**0.1586**	**0.6250**	**8,389.0890**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.4602	21.4268	18.1788	0.0288		1.3688	1.3688		1.2761	1.2761	0.0000	2,737.3882	2,737.3882	0.6712		2,754.1669
Total	**2.4602**	**21.4268**	**18.1788**	**0.0288**		**1.3688**	**1.3688**		**1.2761**	**1.2761**	**0.0000**	**2,737.3882**	**2,737.3882**	**0.6712**		**2,754.1669**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.2721	7.7325	2.6968	0.0313	1.0969	0.1048	1.2017	0.3159	0.1002	0.4161		3,322.1577	3,322.1577	0.0348	0.4932	3,469.9996
Worker	1.8350	1.3507	16.5272	0.0479	5.8373	0.0288	5.8661	1.5480	0.0265	1.5745		4,876.7280	4,876.7280	0.1239	0.1318	4,919.0895
Total	**2.1071**	**9.0832**	**19.2239**	**0.0793**	**6.9342**	**0.1336**	**7.0677**	**1.8638**	**0.1267**	**1.9906**		**8,198.8857**	**8,198.8857**	**0.1586**	**0.6250**	**8,389.0890**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2788	19.8737	18.0019	0.0288		1.2286	1.2286		1.1450	1.1450		2,737.6346	2,737.6346	0.6669		2,754.3057
Total	**2.2788**	**19.8737**	**18.0019**	**0.0288**		**1.2286**	**1.2286**		**1.1450**	**1.1450**		**2,737.6346**	**2,737.6346**	**0.6669**		**2,754.3057**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1840	6.0362	2.4666	0.0301	1.0969	0.0490	1.1458	0.3158	0.0468	0.3627		3,194.5846	3,194.5846	0.0321	0.4726	3,336.2259
Worker	1.7079	1.1922	15.2234	0.0464	5.8373	0.0271	5.8644	1.5480	0.0249	1.5729		4,749.2927	4,749.2927	0.1114	0.1215	4,788.2677
Total	**1.8918**	**7.2283**	**17.6900**	**0.0765**	**6.9341**	**0.0760**	**7.0102**	**1.8638**	**0.0718**	**1.9356**		**7,943.8773**	**7,943.8773**	**0.1434**	**0.5941**	**8,124.4937**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2788	19.8737	18.0019	0.0288		1.2286	1.2286		1.1450	1.1450	0.0000	2,737.6346	2,737.6346	0.6669		2,754.3057
Total	**2.2788**	**19.8737**	**18.0019**	**0.0288**		**1.2286**	**1.2286**		**1.1450**	**1.1450**	**0.0000**	**2,737.6346**	**2,737.6346**	**0.6669**		**2,754.3057**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.1840	6.0362	2.4666	0.0301	1.0969	0.0490	1.1458	0.3158	0.0468	0.3627		3,194.5846	3,194.5846	0.0321	0.4726	3,336.2259
Worker	1.7079	1.1922	15.2234	0.0464	5.8373	0.0271	5.8644	1.5480	0.0249	1.5729		4,749.2927	4,749.2927	0.1114	0.1215	4,788.2677
Total	**1.8918**	**7.2283**	**17.6900**	**0.0765**	**6.9341**	**0.0760**	**7.0102**	**1.8638**	**0.0718**	**1.9356**		**7,943.8773**	**7,943.8773**	**0.1434**	**0.5941**	**8,124.4937**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694		2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3305**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**		**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0561	0.0391	0.4997	1.5200e-003	0.1916	8.9000e-004	0.1925	0.0508	8.2000e-004	0.0516		155.8849	155.8849	3.6600e-003	3.9900e-003	157.1642
Total	**0.0561**	**0.0391**	**0.4997**	**1.5200e-003**	**0.1916**	**8.9000e-004**	**0.1925**	**0.0508**	**8.2000e-004**	**0.0516**		**155.8849**	**155.8849**	**3.6600e-003**	**3.9900e-003**	**157.1642**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	1.0327	10.1917	14.5842	0.0228		0.5102	0.5102		0.4694	0.4694	0.0000	2,207.5841	2,207.5841	0.7140		2,225.4336
Paving	0.2977					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**1.3305**	**10.1917**	**14.5842**	**0.0228**		**0.5102**	**0.5102**		**0.4694**	**0.4694**	**0.0000**	**2,207.5841**	**2,207.5841**	**0.7140**		**2,225.4336**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0561	0.0391	0.4997	1.5200e-003	0.1916	8.9000e-004	0.1925	0.0508	8.2000e-004	0.0516		155.8849	155.8849	3.6600e-003	3.9900e-003	157.1642
Total	**0.0561**	**0.0391**	**0.4997**	**1.5200e-003**	**0.1916**	**8.9000e-004**	**0.1925**	**0.0508**	**8.2000e-004**	**0.0516**		**155.8849**	**155.8849**	**3.6600e-003**	**3.9900e-003**	**157.1642**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944		375.2641	375.2641	0.0225		375.8253
Total	**113.1755**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**		**375.2641**	**375.2641**	**0.0225**		**375.8253**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3401	0.2374	3.0314	9.2400e-003	1.1624	5.3900e-003	1.1677	0.3082	4.9600e-003	0.3132		945.7016	945.7016	0.0222	0.0242	953.4625
Total	**0.3401**	**0.2374**	**3.0314**	**9.2400e-003**	**1.1624**	**5.3900e-003**	**1.1677**	**0.3082**	**4.9600e-003**	**0.3132**		**945.7016**	**945.7016**	**0.0222**	**0.0242**	**953.4625**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Archit. Coating	112.9200					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Off-Road	0.2556	1.7373	2.4148	3.9600e-003		0.0944	0.0944		0.0944	0.0944	0.0000	375.2641	375.2641	0.0225		375.8253
Total	**113.1755**	**1.7373**	**2.4148**	**3.9600e-003**		**0.0944**	**0.0944**		**0.0944**	**0.0944**	**0.0000**	**375.2641**	**375.2641**	**0.0225**		**375.8253**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.3401	0.2374	3.0314	9.2400e-003	1.1624	5.3900e-003	1.1677	0.3082	4.9600e-003	0.3132		945.7016	945.7016	0.0222	0.0242	953.4625
Total	**0.3401**	**0.2374**	**3.0314**	**9.2400e-003**	**1.1624**	**5.3900e-003**	**1.1677**	**0.3082**	**4.9600e-003**	**0.3132**		**945.7016**	**945.7016**	**0.0222**	**0.0242**	**953.4625**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5893	11.2243	69.2451	0.1684	17.9560	0.1389	18.0949	4.7908	0.1302	4.9210		17,329.5967	17,329.5967	0.8874	0.8577	17,607.3848
Unmitigated	6.5893	11.2243	69.2451	0.1684	17.9560	0.1389	18.0949	4.7908	0.1302	4.9210		17,329.5967	17,329.5967	0.8874	0.8577	17,607.3848

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	277.99	277.99	277.99	767,474	767,474
Manufacturing	2,000.76	2,000.76	2000.76	7,729,880	7,729,880
Parking Lot	0.00	0.00	0.00		
Total	2,278.75	2,278.75	2,278.75	8,497,354	8,497,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Manufacturing	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Unmitigated	15.1227	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.6217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1700e-003	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Total	**15.1227**	**5.1000e-004**	**0.0558**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1196**	**0.1196**	**3.1000e-004**		**0.1275**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	3.4959					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	11.6217					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	5.1700e-003	5.1000e-004	0.0558	0.0000		2.0000e-004	2.0000e-004		2.0000e-004	2.0000e-004		0.1196	0.1196	3.1000e-004		0.1275
Total	**15.1227**	**5.1000e-004**	**0.0558**	**0.0000**		**2.0000e-004**	**2.0000e-004**		**2.0000e-004**	**2.0000e-004**		**0.1196**	**0.1196**	**3.1000e-004**		**0.1275**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

11.0 Vegetation

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

14338 Edelweiss Sustainable Farms

Riverside-Mojave Desert MDAQMD County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.71	1000sqft	0.57	24,709.00	0
Manufacturing	509.10	1000sqft	11.69	509,103.00	0
Parking Lot	12.84	Acre	12.84	559,310.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage based on project description

Construction Phase - Project schedule based on similar projects.

Off-road Equipment - Assumed equipment will operate 8 hours/day.

Off-road Equipment - Assumed all equipment will operate 8 hours/day. Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment -

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading - Based on total project site of 33.84 ac

Vehicle Trips - Based on project trip generation rates.

Energy Use - Project will not utilize natural gas. Estimated electrical demand based on data from Project team.

Water And Wastewater - Assumes 100 af/yr for cannabis cultivation.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	440.00	370.00
tblConstructionPhase	NumDays	45.00	35.00
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	NT24E	5.02	267.86
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24NG	3.43	0.00
tblEnergyUse	T24NG	15.20	0.00
tblGrading	AcresOfGrading	105.00	33.84
tblGrading	AcresOfGrading	35.00	33.84
tblLandUse	LandUseSquareFeet	24,710.00	24,709.00
tblLandUse	LandUseSquareFeet	509,100.00	509,103.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	212.00	247.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.40
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	2.21	11.25
tblVehicleTrips	ST_TR	6.42	3.93
tblVehicleTrips	SU_TR	0.70	11.25
tblVehicleTrips	SU_TR	5.09	3.93
tblVehicleTrips	WD_TR	9.74	11.25
tblWater	IndoorWaterUseRate	117,729,375.00	32,590,000.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5609	4.1181	4.7238	0.0131	0.8651	0.1985	1.0636	0.2524	0.1849	0.4373	0.0000	1,193.8936	1,193.8936	0.1174	0.0613	1,215.0909
2023	6.8071	2.7879	3.9991	0.0104	0.6039	0.1356	0.7395	0.1623	0.1265	0.2888	0.0000	948.5961	948.5961	0.0961	0.0434	963.9181
Maximum	**6.8071**	**4.1181**	**4.7238**	**0.0131**	**0.8651**	**0.1985**	**1.0636**	**0.2524**	**0.1849**	**0.4373**	**0.0000**	**1,193.8936**	**1,193.8936**	**0.1174**	**0.0613**	**1,215.0909**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5609	4.1181	4.7238	0.0131	0.8651	0.1985	1.0636	0.2524	0.1849	0.4373	0.0000	1,193.8932	1,193.8932	0.1174	0.0613	1,215.0904
2023	6.8071	2.7879	3.9991	0.0104	0.6039	0.1356	0.7395	0.1623	0.1265	0.2888	0.0000	948.5957	948.5957	0.0961	0.0434	963.9178
Maximum	**6.8071**	**4.1181**	**4.7238**	**0.0131**	**0.8651**	**0.1985**	**1.0636**	**0.2524**	**0.1849**	**0.4373**	**0.0000**	**1,193.8932**	**1,193.8932**	**0.1174**	**0.0613**	**1,215.0904**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	1-1-2022	3-31-2022	1.2559	1.2559
2	4-1-2022	6-30-2022	1.1296	1.1296
3	7-1-2022	9-30-2022	1.1420	1.1420
4	10-1-2022	12-31-2022	1.1525	1.1525
5	1-1-2023	3-31-2023	2.4125	2.4125
6	4-1-2023	6-30-2023	5.1387	5.1387
7	7-1-2023	9-30-2023	1.9764	1.9764
		Highest	5.1387	5.1387

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Mobile	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Waste						0.0000	0.0000		0.0000	0.0000	132.8089	0.0000	132.8089	7.8488	0.0000	329.0284
Water						0.0000	0.0000		0.0000	0.0000	11.7326	90.7026	102.4352	1.2127	0.0294	141.5087
Total	**3.9718**	**2.0576**	**13.0464**	**0.0312**	**3.2141**	**0.0253**	**3.2394**	**0.8587**	**0.0237**	**0.8824**	**144.5415**	**27,699.0224**	**27,843.5639**	**11.2927**	**0.4245**	**28,252.3949**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Mobile	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Waste						0.0000	0.0000		0.0000	0.0000	132.8089	0.0000	132.8089	7.8488	0.0000	329.0284
Water						0.0000	0.0000		0.0000	0.0000	4.1207	33.1464	37.2671	0.4260	0.0103	50.9970
Total	**3.9718**	**2.0576**	**13.0464**	**0.0312**	**3.2141**	**0.0253**	**3.2394**	**0.8587**	**0.0237**	**0.8824**	**136.9295**	**27,641.4663**	**27,778.3958**	**10.5060**	**0.4055**	**28,161.8832**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.27**	**0.21**	**0.23**	**6.97**	**4.49**	**0.32**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/29/2022	3/18/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	3/1/2023	8/4/2023	5	113	
5	Architectural Coating	Architectural Coating	3/1/2023	8/4/2023	5	113	

Acres of Grading (Site Preparation Phase): 33.84

Acres of Grading (Grading Phase): 33.84

Acres of Paving: 12.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 800,718; Non-Residential Outdoor: 266,906; Striped Parking Area: 33,559 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	1	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	97	0.37
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	457.00	179.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1083	0.0000	0.1083	0.0516	0.0000	0.0516	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1965	0.1034	1.9000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	16.7211	16.7211	5.4100e-003	0.0000	16.8563
Total	**0.0202**	**0.1965**	**0.1034**	**1.9000e-004**	**0.1083**	**0.0114**	**0.1197**	**0.0516**	**0.0105**	**0.0621**	**0.0000**	**16.7211**	**16.7211**	**5.4100e-003**	**0.0000**	**16.8563**

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3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.4400e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8917	0.8917	2.0000e-005	2.0000e-005	0.8994
Total	**3.4000e-004**	**2.7000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8917**	**0.8917**	**2.0000e-005**	**2.0000e-005**	**0.8994**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1083	0.0000	0.1083	0.0516	0.0000	0.0516	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1965	0.1034	1.9000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	16.7211	16.7211	5.4100e-003	0.0000	16.8563
Total	**0.0202**	**0.1965**	**0.1034**	**1.9000e-004**	**0.1083**	**0.0114**	**0.1197**	**0.0516**	**0.0105**	**0.0621**	**0.0000**	**16.7211**	**16.7211**	**5.4100e-003**	**0.0000**	**16.8563**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.4400e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8917	0.8917	2.0000e-005	2.0000e-005	0.8994
Total	**3.4000e-004**	**2.7000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8917**	**0.8917**	**2.0000e-005**	**2.0000e-005**	**0.8994**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0179	0.0000	0.0179	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6398	0.4895	1.0900e-003		0.0256	0.0256		0.0236	0.0236	0.0000	95.3659	95.3659	0.0308	0.0000	96.1369
Total	**0.0581**	**0.6398**	**0.4895**	**1.0900e-003**	**0.0179**	**0.0256**	**0.0436**	**1.9400e-003**	**0.0236**	**0.0255**	**0.0000**	**95.3659**	**95.3659**	**0.0308**	**0.0000**	**96.1369**

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0600e-003	0.0134	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4675	3.4675	9.0000e-005	9.0000e-005	3.4975
Total	**1.3300e-003**	**1.0600e-003**	**0.0134**	**4.0000e-005**	**4.4000e-003**	**2.0000e-005**	**4.4200e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.4675**	**3.4675**	**9.0000e-005**	**9.0000e-005**	**3.4975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0179	0.0000	0.0179	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6398	0.4895	1.0900e-003		0.0256	0.0256		0.0236	0.0236	0.0000	95.3658	95.3658	0.0308	0.0000	96.1368
Total	**0.0581**	**0.6398**	**0.4895**	**1.0900e-003**	**0.0179**	**0.0256**	**0.0436**	**1.9400e-003**	**0.0236**	**0.0255**	**0.0000**	**95.3658**	**95.3658**	**0.0308**	**0.0000**	**96.1368**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0600e-003	0.0134	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4675	3.4675	9.0000e-005	9.0000e-005	3.4975
Total	**1.3300e-003**	**1.0600e-003**	**0.0134**	**4.0000e-005**	**4.4000e-003**	**2.0000e-005**	**4.4200e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.4675**	**3.4675**	**9.0000e-005**	**9.0000e-005**	**3.4975**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2645	2.3034	1.9542	3.1000e-003		0.1471	0.1471		0.1372	0.1372	0.0000	266.9566	266.9566	0.0655	0.0000	268.5929
Total	**0.2645**	**2.3034**	**1.9542**	**3.1000e-003**		**0.1471**	**0.1471**		**0.1372**	**0.1372**	**0.0000**	**266.9566**	**266.9566**	**0.0655**	**0.0000**	**268.5929**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0299	0.8279	0.2839	3.3700e-003	0.1163	0.0113	0.1276	0.0336	0.0108	0.0443	0.0000	323.7721	323.7721	3.4200e-003	0.0481	338.1793
Worker	0.1866	0.1492	1.8760	5.2700e-003	0.6170	3.0900e-003	0.6201	0.1638	2.8500e-003	0.1667	0.0000	486.7188	486.7188	0.0122	0.0131	490.9285
Total	**0.2165**	**0.9771**	**2.1599**	**8.6400e-003**	**0.7333**	**0.0143**	**0.7477**	**0.1974**	**0.0136**	**0.2110**	**0.0000**	**810.4909**	**810.4909**	**0.0156**	**0.0612**	**829.1078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2645	2.3034	1.9542	3.1000e-003		0.1471	0.1471		0.1372	0.1372	0.0000	266.9562	266.9562	0.0655	0.0000	268.5925
Total	**0.2645**	**2.3034**	**1.9542**	**3.1000e-003**		**0.1471**	**0.1471**		**0.1372**	**0.1372**	**0.0000**	**266.9562**	**266.9562**	**0.0655**	**0.0000**	**268.5925**

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3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0299	0.8279	0.2839	3.3700e-003	0.1163	0.0113	0.1276	0.0336	0.0108	0.0443	0.0000	323.7721	323.7721	3.4200e-003	0.0481	338.1793
Worker	0.1866	0.1492	1.8760	5.2700e-003	0.6170	3.0900e-003	0.6201	0.1638	2.8500e-003	0.1667	0.0000	486.7188	486.7188	0.0122	0.0131	490.9285
Total	**0.2165**	**0.9771**	**2.1599**	**8.6400e-003**	**0.7333**	**0.0143**	**0.7477**	**0.1974**	**0.0136**	**0.2110**	**0.0000**	**810.4909**	**810.4909**	**0.0156**	**0.0612**	**829.1078**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.5402	1.3952	2.2300e-003		0.0952	0.0952		0.0887	0.0887	0.0000	192.4744	192.4744	0.0469	0.0000	193.6465
Total	**0.1766**	**1.5402**	**1.3952**	**2.2300e-003**		**0.0952**	**0.0952**		**0.0887**	**0.0887**	**0.0000**	**192.4744**	**192.4744**	**0.0469**	**0.0000**	**193.6465**

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3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.4627	0.1877	2.3300e-003	0.0839	3.7900e-003	0.0876	0.0242	3.6200e-003	0.0278	0.0000	224.2658	224.2658	2.2800e-003	0.0332	234.2081
Worker	0.1250	0.0949	1.2452	3.6800e-003	0.4449	2.1000e-003	0.4469	0.1181	1.9300e-003	0.1201	0.0000	341.6907	341.6907	7.8800e-003	8.7100e-003	344.4825
Total	**0.1398**	**0.5576**	**1.4330**	**6.0100e-003**	**0.5287**	**5.8900e-003**	**0.5346**	**0.1423**	**5.5500e-003**	**0.1479**	**0.0000**	**565.9565**	**565.9565**	**0.0102**	**0.0419**	**578.6907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.5402	1.3951	2.2300e-003		0.0952	0.0952		0.0887	0.0887	0.0000	192.4742	192.4742	0.0469	0.0000	193.6462
Total	**0.1766**	**1.5402**	**1.3951**	**2.2300e-003**		**0.0952**	**0.0952**		**0.0887**	**0.0887**	**0.0000**	**192.4742**	**192.4742**	**0.0469**	**0.0000**	**193.6462**

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3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.4627	0.1877	2.3300e-003	0.0839	3.7900e-003	0.0876	0.0242	3.6200e-003	0.0278	0.0000	224.2658	224.2658	2.2800e-003	0.0332	234.2081
Worker	0.1250	0.0949	1.2452	3.6800e-003	0.4449	2.1000e-003	0.4469	0.1181	1.9300e-003	0.1201	0.0000	341.6907	341.6907	7.8800e-003	8.7100e-003	344.4825
Total	**0.1398**	**0.5576**	**1.4330**	**6.0100e-003**	**0.5287**	**5.8900e-003**	**0.5346**	**0.1423**	**5.5500e-003**	**0.1479**	**0.0000**	**565.9565**	**565.9565**	**0.0102**	**0.0419**	**578.6907**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0584	0.5758	0.8240	1.2900e-003		0.0288	0.0288		0.0265	0.0265	0.0000	113.1518	113.1518	0.0366	0.0000	114.0667
Paving	0.0168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0752**	**0.5758**	**0.8240**	**1.2900e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**113.1518**	**113.1518**	**0.0366**	**0.0000**	**114.0667**

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3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9900e-003	2.2700e-003	0.0298	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8300e-003	5.0000e-005	2.8700e-003	0.0000	8.1763	8.1763	1.9000e-004	2.1000e-004	8.2431
Total	**2.9900e-003**	**2.2700e-003**	**0.0298**	**9.0000e-005**	**0.0106**	**5.0000e-005**	**0.0107**	**2.8300e-003**	**5.0000e-005**	**2.8700e-003**	**0.0000**	**8.1763**	**8.1763**	**1.9000e-004**	**2.1000e-004**	**8.2431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0584	0.5758	0.8240	1.2900e-003		0.0288	0.0288		0.0265	0.0265	0.0000	113.1517	113.1517	0.0366	0.0000	114.0666
Paving	0.0168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0752**	**0.5758**	**0.8240**	**1.2900e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**113.1517**	**113.1517**	**0.0366**	**0.0000**	**114.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9900e-003	2.2700e-003	0.0298	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8300e-003	5.0000e-005	2.8700e-003	0.0000	8.1763	8.1763	1.9000e-004	2.1000e-004	8.2431
Total	**2.9900e-003**	**2.2700e-003**	**0.0298**	**9.0000e-005**	**0.0106**	**5.0000e-005**	**0.0107**	**2.8300e-003**	**5.0000e-005**	**2.8700e-003**	**0.0000**	**8.1763**	**8.1763**	**1.9000e-004**	**2.1000e-004**	**8.2431**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.0982	0.1364	2.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	19.2345	19.2345	1.1500e-003	0.0000	19.2633
Total	**6.3944**	**0.0982**	**0.1364**	**2.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**19.2345**	**19.2345**	**1.1500e-003**	**0.0000**	**19.2633**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0181	0.0138	0.1808	5.3000e-004	0.0646	3.0000e-004	0.0649	0.0172	2.8000e-004	0.0174	0.0000	49.6027	49.6027	1.1400e-003	1.2600e-003	50.0080
Total	**0.0181**	**0.0138**	**0.1808**	**5.3000e-004**	**0.0646**	**3.0000e-004**	**0.0649**	**0.0172**	**2.8000e-004**	**0.0174**	**0.0000**	**49.6027**	**49.6027**	**1.1400e-003**	**1.2600e-003**	**50.0080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.0982	0.1364	2.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	19.2345	19.2345	1.1500e-003	0.0000	19.2633
Total	**6.3944**	**0.0982**	**0.1364**	**2.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**19.2345**	**19.2345**	**1.1500e-003**	**0.0000**	**19.2633**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0181	0.0138	0.1808	5.3000e-004	0.0646	3.0000e-004	0.0649	0.0172	2.8000e-004	0.0174	0.0000	49.6027	49.6027	1.1400e-003	1.2600e-003	50.0080
Total	**0.0181**	**0.0138**	**0.1808**	**5.3000e-004**	**0.0646**	**3.0000e-004**	**0.0649**	**0.0172**	**2.8000e-004**	**0.0174**	**0.0000**	**49.6027**	**49.6027**	**1.1400e-003**	**1.2600e-003**	**50.0080**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Unmitigated	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	277.99	277.99	277.99	767,474	767,474
Manufacturing	2,000.76	2,000.76	2000.76	7,729,880	7,729,880
Parking Lot	0.00	0.00	0.00		
Total	2,278.75	2,278.75	2,278.75	8,497,354	8,497,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Manufacturing	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	227076	40.2709	3.4000e-003	4.1000e-004	40.4786
Manufacturing	1.38861e+008	24,626.4091	2.0786	0.2520	24,753.4526
Parking Lot	195759	34.7169	2.9300e-003	3.6000e-004	34.8960
Total		**24,701.3969**	**2.0849**	**0.2527**	**24,828.8272**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	227076	40.2709	3.4000e-003	4.1000e-004	40.4786
Manufacturing	1.38861e+008	24,626.4091	2.0786	0.2520	24,753.4526
Parking Lot	195759	34.7169	2.9300e-003	3.6000e-004	34.8960
Total		**24,701.3969**	**2.0849**	**0.2527**	**24,828.8272**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Unmitigated	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Total	**2.7594**	**5.0000e-005**	**5.0200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.7700e-003**	**9.7700e-003**	**3.0000e-005**	**0.0000**	**0.0104**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Total	**2.7594**	**5.0000e-005**	**5.0200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.7700e-003**	**9.7700e-003**	**3.0000e-005**	**0.0000**	**0.0104**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	37.2671	0.4260	0.0103	50.9970
Unmitigated	102.4352	1.2127	0.0294	141.5087

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.3918 / 2.69175	16.8385	0.1444	3.5400e-003	21.5028
Manufacturing	32.59 / 0	85.5967	1.0683	0.0258	120.0059
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**102.4352**	**1.2127**	**0.0294**	**141.5087**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.54247 / 1.60027	7.2043	0.0508	1.2600e-003	8.8491
Manufacturing	11.4461 / 0	30.0628	0.3752	9.0800e-003	42.1479
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**37.2671**	**0.4260**	**0.0103**	**50.9970**

8.0 Waste Detail

8.1 Mitigation Measures Waste

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	132.8089	7.8488	0.0000	329.0284
Unmitigated	132.8089	7.8488	0.0000	329.0284

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	22.98	4.6647	0.2757	0.0000	11.5567
Manufacturing	631.28	128.1441	7.5731	0.0000	317.4717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**132.8089**	**7.8488**	**0.0000**	**329.0284**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	22.98	4.6647	0.2757	0.0000	11.5567
Manufacturing	631.28	128.1441	7.5731	0.0000	317.4717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**132.8089**	**7.8488**	**0.0000**	**329.0284**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix D.1

Biological Report

May 2022

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GENERAL BIOLOGICAL
RESOURCES ASSESSMENT

Edelweiss Sustainable Farms, LLC

Located Within
SECTION 31, RANGE 23 EAST, TOWNSHIP 6 SOUTH
APN 836-100-007
City of Blythe, Riverside County, California

Prepared For:

EDELWEISS SUSTAINABLE FARMS, LLC
Attention: Patrick Kelly
6086 Yucca Mesa Road
Yucca Valley, California 92284
760-427-0985

Field Study and Report Completed By:

JAMES W. CORNETT
Ecological Consultants
P.O. Box 846
Palm Springs, California 92263
760-320-8135

December 9, 2021

EXECUTIVE SUMMARY

An intensive plant and animal survey was conducted on a 33.62-acre site located in the city of Blythe, Riverside County, California. The project site has been repeatedly graded in the past and is currently an active agricultural field. Irrigation canals form the north, east and west boundaries of the site. No sensitive species were associated with the irrigation canals. The migratory and protected burrowing owl was seen within the project boundaries. As a result of the observation, the California Department Fish & Wildlife recommends a burrowing owl clearance survey be completed prior to planned earth disturbance (grading, grubbing). Following the completion of the clearance survey and burrowing owl mitigation, if necessary, no significant adverse impacts to biological resources are expected as a result of the proposed project.

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I. EXECUTIVE SUMMARY

An intensive plant and animal survey was conducted on a 33.62-acre site located in the city of Blythe, Riverside County, California. No special-status plant species were found during the field surveys. One special-status animal species, the burrowing owl, was observed. A burrowing owl clearance survey is recommended not more than 14-days prior to site modification (grading or grubbing).

Irrigation canals exist within the project boundaries. Spillage from the canals has resulted in an artificial oasis in the southwest corner of the site. No special-status species were associated with the canals or the oasis and no mitigation for the loss of the oasis is recommended.

The project site **does not** lie within a conservation area designated by the city of Blythe, county of Riverside, or state of California.

Following the completion of the recommended mitigation, no significant adverse impacts upon biological resources within the region are expected on or near the project site.

II. INTRODUCTION

On October 20, 2021, James W. Cornett - Ecological Consultants was retained by Mr. Patrick Kelly of Edelweiss Sustainable Farms, LLC, to conduct a biological survey on a 33.62-acre parcel within the city limits of Blythe, Riverside County, California. The project site is located in Section 31, Township 6 South, Range 23 East; San Bernardino Baseline and Meridian. The regional location is shown in Figure 1, the area location in Figure 2 and the specific location in Figure 3.

This study was included as part of an environmental assessment mandated by the California Environmental Quality Act (CEQA) and required by the city of Blythe. The biological survey and impact analysis were designed to ascertain the impacts of grading and development on the plant and animal resources of the project site and immediate vicinity.

Specifically, the purposes of the biological survey were as follows:

determine the vascular plant and vertebrate animal species that occur on, and immediately adjacent to, the project site.

ascertain the presence of any special-status plant or animal species.

ascertain the existence of other significant biotic elements or communities.

if necessary, develop measures to mitigate significant adverse impacts of the project on any special-status species or unique biotic elements or communities.

Figure 1. Regional Location of Project Site



Figure 2. Project Site Area



Figure 3. Project Site



Figures 4-7. Project Site Images

Figure 4. View across site to northheast.



Figure 5. View across site to northwest.



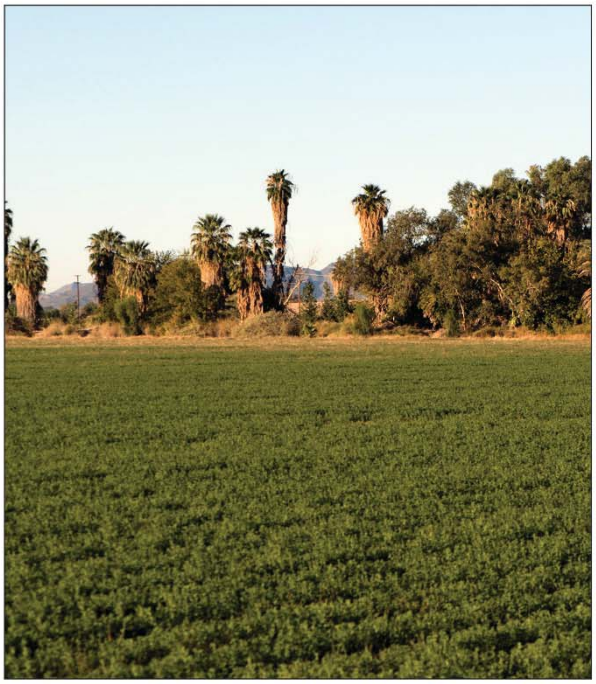


Figure 6. View across site to southwest.

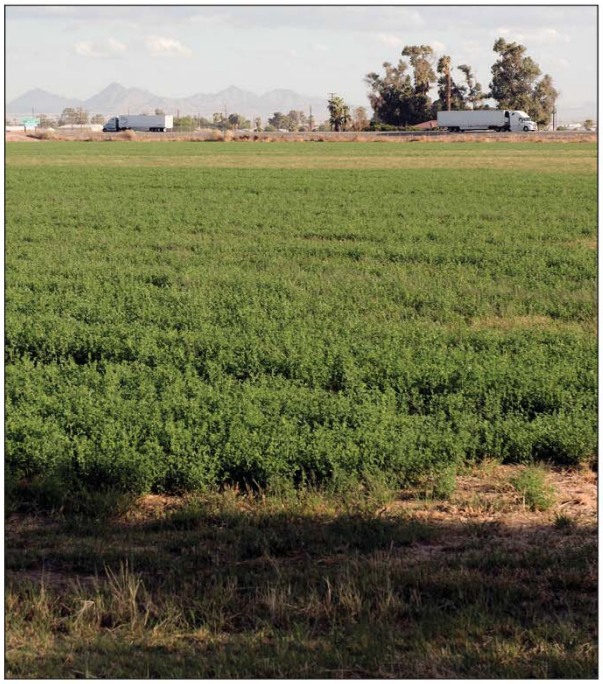


Figure 7. View across site to southeast.

III. SITE AND PROJECT DESCRIPTIONS

Climate

The project area lies within the confines of a geographical region known as the Colorado Desert, a subdivision of the Sonoran Desert as defined by Jaeger (1957). As is typical of this subdivision, annual rainfall averages 3.77 inches (U.S. Weather Bureau, 2020). Most precipitation falls during winter and spring with occasional summer thundershowers that account for approximately one fourth the annual total. Winter daily maximum temperatures are mild, averaging 68 degrees Fahrenheit in January. Winter nights occasionally drop to near freezing. July brings the hottest temperatures with daytime highs averaging 109 degrees F.

Physical Features

The project site lies approximately 262 feet above sea level and has no relief. Soils are slightly alkaline and consist of fine sand and silt. There are no naturally occurring springs although an irrigation canal forms the eastern boundary of the site. Canals also form the northern and western boundaries of the site, but these were dry during the field surveys. Apparently, water does occasionally flow from north to south in the canal that forms the western boundary of the site as there is an artificial oasis located in the southwest corner of the site. No blue-line streams, as depicted on United States Geological Survey topographical maps, exist within the project boundaries.

Surrounding Lands

A residence and agricultural lands lie to the immediate west of the project site.

Hobson Way, a paved thoroughfare, forms the northern boundary. Active agricultural fields lie to the immediate north of Hobson Way.

A graded but long-abandoned agricultural field lies along the site's eastern boundary.

Interstate 10, an extremely busy freeway, forms the site's southern boundary.

Existing Impacts

The project site and surrounding lands are completely impacted by decades of agricultural development in the area. No native plant communities exist on or near site boundaries and there

was no significant evidence of native terrestrial animals regularly moving on and off the site. The nearest natural habitat is more than five miles from the project site.

Project Description

The project proponent intends to establish marijuana cultivation facilities within the site boundaries.

IV. SURVEY METHODS

Prior to the initiation of field work a review of the literature was undertaken to determine the biological resources that might exist within the general area, and to determine the possible occurrence of proposed and officially listed species (see References section). Records, collections and/or staff of the University of California at Riverside Herbarium, the Coachella Valley Association of Governments and the Boyd Deep Canyon Desert Research Center were consulted for more specific information as to occurrence. The California Natural Diversity Database was conducted and yielded no known occurrences of special-status species.

Field surveys were conducted on October 25, 26, 27, 28, and 29; November 15, 16, 17, 18, and 19; and December 8, 2021. Night surveys were conducted on the evenings of October 27 and 28, 2021. Plant surveys were conducted by walking east-west transects at 10-yard intervals through the project site though thick vegetation prohibited strict allegiance to parallel transect lines in the southwestern corner of the site. No surveys were conducted beyond project site boundaries due to the presence of private properties that lie to the east, west and north of the site. Interstate 10 forms the southern project boundary and was considered a clear and significant obstacle to the movement of wildlife on and off the site to the south. However, binocular surveys were conducted to the east, west and north of the project site in anticipation of observing burrowing owls and other migratory bird species. Specifically, the survey patterns and methods described have been established by the U.S. Fish & Wildlife Service and California Department of Fish & Wildlife for determining the presence or absence of the burrowing owl and some other sensitive species. Survey intensity adhered to western burrowing owls survey protocol established by the California Burrowing Owl Consortium (2012) and accepted by the CDFW. Vertebrate and invertebrate surveys were conducted simultaneously with plant surveys. In addition, thirty Sherman live-animal traps (which capture animals unharmed) for large and small mammals were set on site for twenty-four-hour periods on October 27 and 28, 2021.

Though scientific name changes occur as new discoveries are made in plant and animal taxonomy, the scientific names used in this report are taken from the standard and most available references describing the species found in the desert regions of Southern California: Bruce G. Baldwin's *The Jepson Manual* (Second Edition) published in 2012; D. P. Tiber's Inventory of rare and endangered vascular plants of California published in 2001; R. A. Stebbins and S. M. McGinnis (2012) *Field guide to amphibians and reptiles of California,* University of California Press, Berkeley, California; Peterson's *Birds of North America* published in 2008; and E. W. Jameson's and H. J. Peeters' *California mammals* published in 2004. Plant common names used in this report are taken from Baldwin (2012), Jaeger (1969), Munz (1974) and Tibor (2001). Animal common names are taken from Stebbins and McGinnis (2012), Peterson (2008) and Jameson and Peeter (2004).

Fieldwork was conducted by James W. Cornett (M.S. biology) and Blake Gonzales (B.S.). Plant identifications were made by Mr. Cornett and Andrew Sanders. The literature review was conducted by Terry Belknap. The report was written by James W. Cornett.

V. PLANT SURVEY RESULTS

The project site has no native plant communities. It has been an agricultural field for several decades. Elements of a severely disturbed Saltbush Scrub Community were present as were elements of the Cattail Series, both plant associations described in Sawyer and Keeler-Wolf (1995). Native plants associated with the Saltbush Scrub Community included quailbrush (*Atriplex lentiformis*), iodine bush (*Allenrolfea occidentalis*), arrow weed (*Pluchea sericea*), bush seepweed (*Suaeda moquinii*), and mesquite (*Prosopis glandulosa*) . Variations of this plant community occupy thousands of square miles of desert lands in California.

Dozens of non-native weed species have invaded the site including the shrub tamarisk (*Tamarix ramosissima*), Russian thistle (*Salsola tragus*), horseweed (*Conyza canadensis*), nettleleaf goosefoot (*Chenopodium murale*), silverleaf nightshade (*Solanum elaeagnifolium*), tumble pigweed (*Amaranthus albus*), wild oat (*Avena fatua*), Chilean chess (*Bromus berteroanus*), red brome (Bromus rubens), and Bermuda grass (*Cynodon dactylon*).

Cattail, *Typha latifolia*, and was confined to the margins of irrigation canals. The occasionally functional canal that forms the western boundary of the project site collects water where it abuts Interstate 10. The collected water has allowed the growth of a number of tree species including the Mexican fan palm (*Washingtonia robusta*), desert fan palm (*Washingtonia filifera*), date palm (*Phoenix dactylifera*) and Fremont's cottonwood. Together, they form an artificial oasis subject to the vagaries of canal use (see Figure 6 on page 8).

The Inventory of Rare and Endangered Plants of California, published by the California Native Plant Society (2001), the *CNDDB Special Plant List* (2004) and the *Endangered, Threatened, and Rare Plants of California* (2021) list a single plant species that could, conceivably, occur within or adjacent to the project site boundaries: the desert unicorn plant, *Proboscidea althaeifolia*. However, no individuals or evidence of this species were found. As the dried skeletons of the plant are quite distinctive and persist for months after the plant has expired, it was concluded that it does not occur on or near the project site. California bestows a Rare Plant Rank of 4.3 for the species because of its limited distribution in the state.

A complete list of vascular plant species found within the project boundaries can be found in Table 1 of the Appendix.

VI. ANIMAL SURVEY RESULTS

The fauna of the project site and surrounding vicinity was composed of species expected in an agricultural area found within California's Colorado Desert.

Invertebrates

Encountered invertebrates included the honeybee (*Apis mellifera*), eleodes beetle (*Eleodes armata*), harvester ant (*Pogonomyrmex californicus*) and southern dogface butterfly (*Zerene cesonia*). No special status insects or other invertebrates were found or are expected within the project boundaries.

Amphibians

Though no amphibians were encountered during field surveys, several toad species use irrigation canals to disperse into agricultural environments. Species known to be associated with irrigation networks in the greater Blythe area include the Great Plains toad (*Anaxyrus cognatus*), and Woodhouse's toad (*Anaxyrus woodhousii*). Neither of these species are considered sensitive by state or federal governments. A third amphibian known from the greater Blythe area which is considered a Species of Special Concern is Couch's spadefoot toad (*Scaphiopus couchii*), However, Couch's spadefoot is not normally associated with irrigation canal networks and is not expected to occur on or near the project site.

Reptiles

Four reptile species were detected on site: the desert spiny lizard (*Sceloporus magister*), side-blotched lizard (*Uta stansburiana*), western whiptail (*Cnemidophorus tigris*) and gopher snake (*Pituophis melanoleucus*).

Effort was made to locate sign of the officially threatened desert tortoise (*Goperhus agassizi*). However, no evidence of any kind was found, and no direct observations were made. It is therefore concluded that this species does not occur within the project site and immediate vicinity.

No sensitive reptile species were detected during the field surveys, and none are expected.

Birds

Birds seen within the project boundaries included the great-tailed grackle (*Quiscalus quiscula*), Brewer's blackbird (*Euphagus cyanocephalus*), house finch (*Carpodacus mexicanus*), common raven (*Corvus corax*), mourning dove (*Zenaida macroura*), and the introduced house sparrow (*Passer domesticus*). One observation of a prairie falcon (*Falco mexicanus*) was recorded on October 26, 2021. No nesting habitat (cliffs) for this species occurs in or near the project site.

The western burrowing owl (*Athene cunicularia hypugaea*), a California Department of Fish & Game Species of Special Concern and a federally protected species under the Migratory Bird Act, was seen four times (October 25 and 26; November 15 and 18). However, no owl burrows were found on, or immediately adjacent to, the project site.

The Yuma clapper rail (*Rallus longirostris yumanensis*) is known to inhabit freshwater marsh environments where cattails are common. Though cattails were recorded within the site boundaries, the dense emergent freshwater marsh vegetation and ponds required by this species were not found within or near the project site. Clapper rails were not seen, and their distinct calls were not heard during any of the field days is spite of intensive searching. This species is officially listed as endangered by the federal government and threatened by the state government.

Mammals

Detected mammals included the house mouse (*Mus musculus*), desert cottontail (*Sylvilagus audubonii),* and coyote (*Canis latrans*).

No sensitive mammalian species were observed or are expected in the completely disturbed landscape of the project site.

A complete list of vertebrate species seen or detected on the project site can be found in Table 2 of the Appendix.

VII. FINDINGS AND RECOMMENDATIONS

Nearly 34 acres will be converted from an agricultural field to a marijuana cultivation facility. The site has been continually disturbed by the growth and harvesting of agricultural products for many years. Therefore, there is no new loss of natural plant or animal habitats resulting from the development of the proposed project.

A single sensitive and protected species was observed: the burrowing owl. The species was seen on four occasions. The habitat is considered suitable for burrowing owl foraging. The site is surrounded by earthen levees which owls often use to construct their burrows. For these reasons, one or more owls could take up residence on the site at any time. Due to these circumstances, the California Department of Fish & Wildlife recommends a clearance survey for burrowing owls be undertaken prior to the project proponent initiating any kind of ground disturbance. The purpose of the clearance survey is to ensure the burrowing owl is not subject to harm or harassment. It is recommended that the clearance survey be conducted not more than 14 days prior to the initiation of grading or other site disturbance. This recommendation should be made a condition of approval prior to the issuing of a grading permit.

The artificial oasis found in the southwestern corner of the project site is a result of the collection of irrigation canal water. It is subject to the vagaries of canal use and would cease to exist if canal water were not forthcoming for any reason. For these reasons, and because it is immediately adjacent to the extremely busy Interstate 10 freeway, there is no recommendation to preserve the oasis.

Upon completion of the recommendation and mitigation described above, the proposed development will have no significant adverse impacts upon biological resources in the region.

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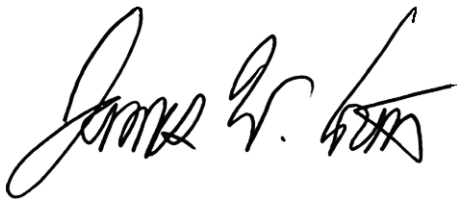
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IX. CERTIFICATION STATEMENT

I, James W. Cornett, hereby certify that the statements given above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements and information presented are true and correct to the best of my knowledge and belief.



December 9, 2021
Date

Principal Investigator

APPENDIX

Species Status Terms Used in This Report

State, Federal, Tribal and local governments, and occasionally private conservation organizations, determine certain plant and animal species are in need of special protection because their numbers are declining, and extinction may be likely. Collectively, such species are referred to as special-status or sensitive species.

Species or subspecies officially classified as **Endangered** are in imminent danger of becoming extinct. State and federal endangered species laws require that government agencies take direct steps to prevent further decline in the numbers of each endangered species. Persons or companies wishing to develop land on which endangered animal species occur will be required to mitigate adverse impacts to the endangered species so that there is no reduction in numbers and no net loss of the species' habitat. Mitigation may take the form of avoiding development on that part of the site inhabited by the species, acquiring habitat for the species elsewhere or, in rare instances, relocating the project to an alternate site. In certain instances, an endangered species may be adversely impacted even though it does not actually occur on site. If such a finding is made, mitigation will likely be required.

Species or subspecies officially classified as **Threatened** are likely to become endangered if action is not forthcoming from government agencies. These species are not in imminent danger of becoming extinct and there is more time to find ways to prevent their extinction. Mitigation requirements for threatened species are the same as those for endangered species.

The state of California has an additional classification known as **Species of Special Concern**. In brief, these are plant and animal species whose numbers may be declining or who status may be in jeopardy but there is insufficient data to formerly classify them as threatened or endangered. Mitigation for these species can be required under the California Environmental Quality Act (CEQA) but is not automatic.

Fully Protected Species may not be taken or possessed at any time and no licenses or permits may be issued for their take. If a protected species is found on a project site, mitigation may be required by the state.

Migratory bird species are protected under the federal **Migratory Bird Species Act** also adhered to by the State of California. Impacts to birds known to be migratory, such as the burrowing owl, must be mitigated to the satisfaction of both state and federal governments.

Reviewed and Considered CNDDB Blythe Quad Species List

1 Animals - Amphibians Lithobates yavapaiensis lowland leopard frog AAABH01250 None None SSC - 3311455 BLYTHE Unprocessed Animals - Amphibians - Ranidae - Lithobates yavapaiensis

2 Animals - Amphibians Scaphiopus couchii Couch's spadefoot AAABF01020 None None SSC - 3311455 BLYTHE Unprocessed Animals - Amphibians - Scaphiopodidae - Scaphiopus couchii

3 Animals - Birds Buteo swainsoni Swainson's hawk ABNKC19070 None Threatened - - 3311455 BLYTHE Unprocessed Animals - Birds - Accipitridae - Buteo swainsoni

4 Animals - Birds Circus hudsonius northern harrier ABNKC11011 None None SSC - 3311455 BLYTHE Unprocessed Animals - Birds - Accipitridae - Circus hudsonius

5 Animals - Birds Haliaeetus leucocephalus bald eagle ABNKC10010 Delisted Endangered FP - 3311455 BLYTHE Unprocessed Animals - Birds - Accipitridae - Haliaeetus leucocephalus

6 Animals - Birds Ardea herodias great blue heron ABNGA04010 None None - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Ardeidae - Ardea herodias

7 Animals - Birds Nycticorax nycticorax black-crowned night heron ABNGA11010 None None - - 3311455 BLYTHE Unprocessed Animals - Birds - Ardeidae - Nycticorax nycticorax

8 Animals - Birds Piranga flava hepatic tanager ABPBX45020 None None WL - 3311455 BLYTHE Unprocessed Animals - Birds - Cardinalidae - Piranga flava

9 Animals - Birds Piranga rubra summer tanager ABPBX45030 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Cardinalidae - Piranga rubra

10 Animals - Birds Charadrius montanus mountain plover ABNNB03100 None None SSC - 3311455 BLYTHE Mapped Animals - Birds - Charadriidae - Charadrius montanus

11 Animals - Birds Coccyzus americanus occidentalis western yellow-billed cuckoo ABNRB02022 Threatened Endangered - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Cuculidae - Coccyzus americanus occidentalis

12 Animals - Birds Falco peregrinus anatum American peregrine falcon ABNKD06071 Delisted Delisted FP - 3311455 BLYTHE Unprocessed Animals - Birds - Falconidae - Falco peregrinus anatum

Reviewed Species List (continued)

13 Animals - Birds Xanthocephalus xanthocephalus yellow-headed blackbird ABPBXB3010 None None SSC - 3311455 BLYTHE Unprocessed Animals - Birds - Icteridae - Xanthocephalus xanthocephalus

14 Animals - Birds Icteria virens yellow-breasted chat ABPBX24010 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Icteriidae - Icteria virens

15 Animals - Birds Lanius ludovicianus loggerhead shrike ABPBR01030 None None SSC - 3311455 BLYTHE Unprocessed Animals - Birds - Laniidae - Lanius ludovicianus

16 Animals - Birds Toxostoma crissale Crissal thrasher ABPBK06090 None None SSC - 3311455 BLYTHE Mapped Animals - Birds - Mimidae - Toxostoma crissale

17 Animals - Birds Leiothlypis luciae Lucy's warbler ABPBX01090 None None SSC - 3311455 BLYTHE Unprocessed Animals - Birds - Parulidae - Leiothlypis luciae

18 Animals - Birds Setophaga petechia sonorana Sonoran yellow warbler ABPBX03017 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Parulidae - Setophaga petechia sonorana

19 Animals - Birds Melozone aberti Abert's towhee ABPBX74050 None None - - 3311455 BLYTHE Unprocessed Animals - Birds - Passerellidae - Melozone aberti

20 Animals - Birds Spizella breweri Brewer's sparrow ABPBX94040 None None - - 3311455 BLYTHE Unprocessed Animals - Birds - Passerellidae - Spizella breweri

21 Animals - Birds Colaptes chrysoides gilded flicker ABNYF10040 None Endangered - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Picidae - Colaptes chrysoides

22 Animals - Birds Melanerpes uropygialis Gila woodpecker ABNYF04150 None Endangered - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Picidae - Melanerpes uropygialis

23 Animals - Birds Polioptila melanura black-tailed gnatcatcher ABPBJ08030 None None WL - 3311455 BLYTHE Unprocessed Animals - Birds - Polioptilidae - Polioptila melanura

24 Animals - Birds Rallus obsoletus yumanensis Yuma Ridgway's rail ABNME0501A Endangered Threatened FP - 3311455 BLYTHE Mapped Animals - Birds - Rallidae - Rallus obsoletus yumanensis

Reviewed Species List (continued)

25 Animals - Birds Athene cunicularia burrowing owl ABNSB10010 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Strigidae - Athene cunicularia

26 Animals - Birds Micrathene whitneyi elf owl ABNSB09010 None Endangered - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Strigidae - Micrathene whitneyi

27 Animals - Birds Empidonax traillii extimus southwestern willow flycatcher ABPAE33043 Endangered Endangered - - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Tyrannidae - Empidonax traillii extimus

28 Animals - Birds Myiarchus tyrannulus brown-crested flycatcher ABPAE43080 None None WL - 3311455 BLYTHE Unprocessed Animals - Birds - Tyrannidae - Myiarchus tyrannulus

29 Animals - Birds Pyrocephalus rubinus vermilion flycatcher ABPAE36010 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Birds - Tyrannidae - Pyrocephalus rubinus

30 Animals - Birds Vireo bellii arizonae Arizona Bell's vireo ABPBW01111 None Endangered - - 3311455 BLYTHE Unprocessed Animals - Birds - Vireonidae - Vireo bellii arizonae

31 Animals - Fish Xyrauchen texanus razorback sucker AFCJC11010 Endangered Endangered FP - 3311455 BLYTHE Mapped and Unprocessed Animals - Fish - Catostomidae - Xyrauchen texanus

32 Animals - Insects Hesperopsis gracielae MacNeill's sootywing IILEPQ6030 None None - - 3311455 BLYTHE Unprocessed Animals - Insects - Hesperiidae - Hesperopsis gracielae

33 Animals - Mammals Neotoma albigula venusta Colorado Valley woodrat AMAFF08031 None None - - 3311455 BLYTHE Mapped Animals - Mammals - Cricetidae - Neotoma albigula venusta

34 Animals - Mammals Sigmodon arizonae plenus Colorado River cotton rat AMAFF07022 None None SSC - 3311455 BLYTHE Mapped Animals - Mammals - Cricetidae - Sigmodon arizonae plenus

35 Animals - Mammals Sigmodon hispidus eremicus Yuma hispid cotton rat AMAFF07013 None None SSC - 3311455 BLYTHE Unprocessed Animals - Mammals - Cricetidae - Sigmodon hispidus eremicus

Reviewed Species List (continued)

36 Animals - Mammals Nyctinomops femorosaccus pocketed free-tailed bat AMACD04010 None None SSC - 3311455 BLYTHE Mapped Animals - Mammals - Molossidae - Nyctinomops femorosaccus

37 Animals - Mammals Lasiurus xanthinus western yellow bat AMACC05070 None None SSC - 3311455 BLYTHE Mapped Animals - Mammals - Vespertilionidae - Lasiurus xanthinus

38 Animals - Mammals Myotis occultus Arizona Myotis AMACC01160 None None SSC - 3311455 BLYTHE Mapped Animals - Mammals - Vespertilionidae - Myotis occultus

39 Animals - Mammals Myotis velifer cave myotis AMACC01050 None None SSC - 3311455 BLYTHE Mapped and Unprocessed Animals - Mammals - Vespertilionidae - Myotis velifer

40 Animals - Mammals Myotis yumanensis Yuma myotis AMACC01020 None None - - 3311455 BLYTHE Mapped Animals - Mammals - Vespertilionidae - Myotis yumanensis

41 Animals - Reptiles Uma scoparia Mojave fringe-toed lizard ARACF15030 None None SSC - 3311455 BLYTHE Unprocessed Animals - Reptiles - Phrynosomatidae - Uma scoparia

42 Community - Terrestrial Sonoran Cottonwood Willow Riparian Forest Sonoran Cottonwood Willow Riparian Forest CTT61810CA None None - - 3311455 BLYTHE Mapped Community - Terrestrial - Sonoran Cottonwood Willow Riparian Forest

43 Plants - Vascular Hymenoxys odorata bitter hymenoxys PDAST530E0 None None - 2B.1 3311455 BLYTHE Mapped Plants - Vascular - Asteraceae - Hymenoxys odorata

44 Plants - Vascular Astragalus insularis var. harwoodii Harwood's milk-vetch PDFAB0F491 None None - 2B.2 3311455 BLYTHE Mapped Plants - Vascular - Fabaceae - Astragalus insularis var. harwoodii

45 Plants - Vascular Teucrium cubense ssp. depressum dwarf germander PDLAM20032 None None - 2B.2 3311455 BLYTHE Mapped Plants - Vascular - Lamiaceae - Teucrium cubense ssp. depressum

46 Plants - Vascular Penstemon pseudospectabilis ssp. pseudospectabilis desert beardtongue PDSCR1L562 None None - 2B.2 3311455 BLYTHE Mapped Plants - Vascular - Plantaginaceae - Penstemon pseudospectabilis ssp. pseudospectabilis

Reviewed Species List (continued)

47 Plants - Vascular Lycium torreyi Torrey's box-thorn PDSOL0G0K0 None None - 4.2 3311455 BLYTHE Unprocessed Plants - Vascular - Solanaceae - Lycium torreyi

TABLE 1
PLANT SPECIES RECORDED
EDELWEISS SITE

ANGIOSPERMAE – DICOTYLEDONES

AMARANTHACEAE – PIGWEED FAMILY
Amaranthus albus – Tumble Pigweed
Amaranthus albus – Prostrate Pigweed
Amaranthus palmeri – Palmer Amaranth

ASCLEPIADACEAE – MILKWEED FAMILY
Asclepias subverticillata – Western Whorled Milkweed

ASTERACEAE - SUNFLOWER FAMILY
Ambrosia acanthicarpa – Annual Bursage
Ambrosia artemisifolia – Common Ragweed
Conyza canadensis – Horseweed
Crepis selosa – Bristly Hawksbeard
Grindelia squarrosa – Curlycup Gumweed
Helianthus annuus – Common Sunflower
Heterotheca subaxillaris – Camphorweed
Lactuca serriola – Prickly Lettuce
Pluchea sericea - Arrow weed
Sonchus oleraceus – Common Sow Thistle

BRASSICACEAE - MUSTARD FAMILY
Brassica nigra – Black Mustard
Sisymbrium irio – London Rocket

CHENOPODIACEAE - GOOSEFOOT FAMILY
Allenrolfea occidentalis -Iodine bush
Atriplex lentiformis – Quailbrush
Chenopodium murale – Nettleleaf Goosefoot
Kochia scoparia - Kochia
Salsola tragus - Russian Thistle
Suaeda moquinii – Sea-blite

TABLE 1 (continued)

EUPHORBIACEAE – SPURGE FAMILY
Chamaesyce maculata – Prostrate Spurge

EQUISETACEAE – HORSETAIL FAMILY
Equisetum laevigatum – Smooth Scouring rush

FABACEAE - PEA FAMILY
Medicago sativa - Alfalfa
Prosopis glandulosa – Honey Mesquite

MALVACEAE – MALLOW FAMILY
Malva neglecta – Common Mallow

MELIACEAE – MAHOGANY FAMILY
Melia azedarach – China Berry Tree

SALICACEAE – WILLOW FAMILY
Populus fremontii – Fremont Cottonwood
Salix lasiolepis – Arroyo Willow

SOLANACEAE – NIGHTSHADE FAMILY
Solanum elaeagnifolium – Silverleaf Nightshade

TAMARICACEAE - TAMARISK FAMILY
Tamarix aphylla – Tree Tamarisk
Tamarix ramosissima – Shrub Tamarisk

ZYGOPHYLLACEAE – CALTROP FAMILY
Tribulus terrestris - Puncturevine

TABLE 1 (continued)

ANGIOSPERMAE – MONOCOTYLEDONES

ARECACEAE – PALM FAMILY
Phoenix dactylifera – Date Palm
Washingtonia filifera – Desert Fan Palm
Washingtonia robusta – Mexican Fan Palm

JUNCACEAE – RUSH FAMILY
Juncus spp. - Rush

POACEAE - GRASS FAMILY
Aegilops cylindrica – Jointed Goatgrass
Arundo donax – Giant Cane Grass
Avena fatua – Wild Oat
Bromus berteroanus – Chilean Chess
Bromus rubens - Red brome
Cynodon dactylon - Bermuda Grass
Distichlis spicata – Salt Grass
Eragrostis cilianensis - Stinkgrass
Leptochloa uninervia – Mexican Sprangletop
Phalaris minor - Canary Grass
Polypogon monspeliensis – Rabbitfoot Polypogon
Sorghum halepense - Johnsongrass

TYPHACEAE – CATTAIL FAMILY
Typha latifolia – Broad-leaved Cattail

TABLE 2
EXPECTED BREEDING OR OBSERVED VERTEBRATES
EDELWEISS SITE

AMPHIBIANS

BUFONIDAE – TRUE TOADS
Anaxyrus cognatus – Great Plains toad
Anaxyrus woodhousii – Woodhouse's toad

REPTILES

IGUANIDAE - IGUANIDS
Sceloporus magister – Desert Spiny Lizard *
Uta stansburiana - Side-Blotched Lizard *

TEIIDAE - WHIPTAILS
Cnemidophorus tigris - Western Whiptail *

COLUBRIDAE - COLUBRIDS
Masticophis flagellum – Coachwhip ?
Pituophis melanoleucus - Gopher Snake

TABLE 2 (continued)

BIRDS

CHARADRIIDAE – PLOVERS
Charadrius vociferous – Killdeer *

ACCIPITRIDAE - OSPREY, HAWKS, EAGLES
Buteo jamaicensis - Red-Tailed Hawk *

CATHARTIDAE – NEW WORLD VULTURES
Cathartes aura – Turkey Vulture *

FALCONIDAE – FALCONS
Falco mexicanus – Prairie Falcon *
Falco sparverius - American Kestrel *

COLUMBIDAE - PIGEONS AND DOVES
Columba livia - Rock Dove *
Zenaida asiatica – White-winged Dove *
Zenaida macroura - Mourning Dove *

PHASIANIDAE – QUAIL
Callipepla gambelii – Gambel's Quail ?

CUCULIDAE - CUCKOOS
Geococcyx californianus - Greater Roadrunner *

CORVIDAE - CROWS AND JAYS
Corvus corax - Common Raven *

PARIDAE – CHICKADEES, TITMICE
Auriparus flaviceps – Verdin *

TYRANNIDAE - TYRANT FLYCATCHERS
Sayornis nigricans – Black Phoebe *
Sayornis saya – Say's Phoebe *

MIMIDAE - MOCKINGBIRDS AND THRASHERS
Mimus polyglottos - Northern Mockingbird *

TABLE 2 (continued)

BIRDS

STURNIDAE - STARLINGS
Sturnus vulgaris - European Starling *

EMBERIZIDAE - WOOD WARBLERS, TANAGERS
Euphagus cyanocephalus - Brewer's Blackbird *
Quiscalus quiscula – Great-tailed Grackle *

PARULIDAE – NEW WORLD WARBLERS
Setophaga coronata – Yellow-Rumped Warbler *

PASSERELLIDAE – NEW WORLD SPARROWS
Melospiza lincolnii – Lincoln's Sparrow *
Melospiza melodia – Song Sparrow *
Zonotrichia leucophrys – White-Crowned Sparrow *

PLOCEIDAE - WEAVER FINCHES
Passer domesticus - House Sparrow *

FRINGILLIDAE - FINCHES
Carpodacus mexicanus - House Finch *

TABLE 2 (continued)

MAMMALS

VESPERTILIONIDAE - EVENING BATS
Pipistrellus hesperus - Western Pipistrelle *

LEPORIDAE - HARES AND RABBITS
Sylvilagus audubonii – Desert Cottontail *

GEOMYIDAE – POCKET GOPHERS
Thomomys bottae – Botta's Pocket Gopher *

CRICETIDAE –
Peromyscus maniculatus – Deer Mouse *
Ondatra zibethicus – Muskrat *

MURIDAE - RATS AND MICE
Mus musculus - House Mouse *

CANIDAE - FOXES, WOLVES, AND COYOTES
Canis latrans - Coyote *
Urocyon cinereoargenteus – Gray Fox ?

* = Sign or individual seen on site.
? = Possible occurrence on or near site; not detected during survey.

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix D.2

Biological Memo

May 2022

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JAMES W. CORNETT
ECOLOGICAL CONSULTANTS
(760) 320-8135

March 25, 2022

Jeff Harvey, Ph.D.
Environmental Consultant to the City of Blythe
Blythe City Hall
235 North Broadway, Blythe, California 92225.

Dear Dr. Harvey:

This letter is a written response to your comments and requests for information regarding our biological survey and impact analysis on the 33.62-acre Edelweiss Sustainable Farms site.

The California Department of Fish & Wildlife, in their 2012 *Staff Report on Burrowing Owl Mitigation*, recommends the following actions should a pre-construction clearance survey reveal one or more active nest burrows within a project site. (1) If an active burrow is located, earth disturbance must be immediately delayed for two weeks. If earth disturbance was scheduled to commence during the breeding season of the burrowing owl (February 1 to August 31), grading/grubbing must be delayed until September 1 or until another clearance survey finds that every owl nestling has fledged (permanently left the nesting burrow). (2) Resident non-breeding owls (owls occupying burrows between September 1 and January 31) may be passively forced from their burrows by exclusion gates that allow owls to leave the burrow but not re-enter. Prior to exclusion, at least three artificial burrows must be created within 250 feet of the existing burrow. Since all the land surrounding the project site is private property, the project proponent must obtain in writing the landowner's approval before constructing artificial burrows. A qualified biologist would lead and coordinate this endeavor with the California Department of Fish & Wildlife.

I do not recommend a breeding bird survey at the location because (1) I did not observe nests from the previous breeding season and (2) the cluster of trees are located immediately adjacent to a busy freeway that, in my experience, would preclude most raptors from breeding at the location. There are numerous other, safer and less disturbed tree clusters in the area.

As described in the report, there is an artificial "oasis," defined by an assortment of invasive and predominantly non-native trees, at the southwest corner of the project site. With regard to the artificial oasis environment in general, I concluded the oasis and its vegetation should not be treated as a significant or important biological element for the following reasons. (1) As implied above, the vegetation has the potential to lure bird and mammal species into extremely close proximity to a busy freeway where collisions with fast-moving vehicles are very likely to occur over time. Some of these species could include raptors and their offspring.

(2) The dense vegetation is artificial and subject to the vagaries of water availability. There is no known historical importance of the site. The significance of dense vegetation to wildlife is primarily a result of the availability of the resource over time, i.e., historically over centuries. Based upon my estimate of tree growth rates, the age of the "oasis" is a few decades in age, at most.

(3) Most of the tree species in the "oasis" are non-native species including the Mexican fan palm (*Washingtonia robusta*) and date palm (*Phoenix dactilyfera*). These are known to be invasive and spread into regional and natural oasis environments crowding out native species such as the desert fan palm (*Washingtonia filifera*). Arid land ecologists encourage the removal of such species in most situations.

(4) No listed or sensitive plant species were found in the "oasis."

(5) Though long-term observations are lacking, the information that is available (the fall biological study) indicates the site does not have significant value to wildlife. No bird nests were found and no sensitive bird, mammal, amphibian or reptile species were observed in the "oasis."

For the reasons above, I found the artificial "oasis" environment to not only be an insignificant biological resource but a hazard to wildlife.

Please do not hesitate to contact me should you require additional information or clarification.

Sincerely,



James W. Cornett

P.O. BOX 846 PALM SPRINGS CA 92263 EMAIL JWCORNETT@AOL.COM

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix E

Cultural Report

May 2022

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HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

EDELWEISS SUSTAINABLE FARMS PROJECT

Assessor's Parcel Number 836-100-007
City of Blythe, Riverside County, California

For Submittal to:

City of Blythe
Development Services Department
235 North Broadway
Blythe, CA 92225

Prepared for:

Edelweiss Sustainable Farms, LLC
6086 Yucca Mesa Road
Yucca Valley, CA 92284

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

January 23, 2022
Revised April 20, 2022
CRM TECH Project No. 3752A

Title: Historical/Archaeological Resources Survey Report: Edelweiss Sustainable Farms Project, Assessor's Parcel Number 836-100-007, City of Blythe, Riverside County, California

Author(s): Bai "Tom" Tang, Principal Investigator/Historian
Ben Kerridge, Archaeologist/Report Writer
Daniel Ballester, Archaeologist/Field Director

Consulting Firm: CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: January 23, 2022; revised April 20, 2022

For Submittal to: City of Blythe
Development Services Department
235 North Broadway
Blythe, CA 92225
(760) 922-6130, ext. 1227

Prepared for: Patrick Kelly
Edelweiss Sustainable Farms, LLC
6086 Yucca Mesa Road
Yucca Valley, CA 92284

USGS Quadrangle: Blythe, Calif., 7.5' quadrangle (Section 31, T6S R23E, San Bernardino Baseline and Meridian)

Project Size: Approximately 34 acres

Keywords: Palo Verde Valley, Colorado Desert region; Phase I cultural resources survey; C Canal (Site 33-011044); no "historical resource" under CEQA provisions

EXECUTIVE SUMMARY

Between July 2021 and January 2022, at the request of Edelweiss Sustainable Farms, LLC, CRM TECH performed a cultural resources study on approximately 34 acres of agricultural land in the City of Blythe, Riverside County, California. The subject property of the study, Assessor's Parcel Number 836-100-007, is located on the south side of Hobson Way and the east side of C Canal, in the southwest quarter of Section 31, Township 6 South, Range 23 East, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed construction of a cannabis cultivation facility on the property. The City of Blythe, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would potentially cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or near the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, contacted Native American representatives, pursued historical background research, and carried out a systematic field survey. Throughout the course of the study, no potential "historical resources" were encountered within the project area. Outside but adjacent to the eastern project boundary, C Canal, a part of the extensive irrigation system that made the agricultural development of the Palo Verde Valley possible in the late 19th and early 20th centuries, was previously recorded into the California Historical Resources Inventory as Site 33-011044.

The short segment of C Canal adjacent to the project area is known to have followed the same alignment since at least the 1940s. As a working component of the modern infrastructure, however, the segment of nondescript earthen canal demonstrates no distinctively historical characteristics due to frequent upgrading and maintenance in recent decades. As such, it is unlikely to meet the definition of a "historical resource" under CEQA provisions because of the lack of sufficient historic integrity. In any event, since the proposed project has no potential to alter the current characteristics of the canal substantially, Site 33-011044 requires no further consideration during this study, including a full evaluation of its historic significance.

Based on these findings, CRM TECH recommends to the City of Blythe a conclusion that the proposed project would not cause a substantial adverse change to any known "historical resources." No further cultural resources investigation is recommended for this project unless development plans undergo such changes as to include areas not covered by this study. However, if buried cultural materials are encountered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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INTRODUCTION

Between July 2021 and January 2022, at the request of Edelweiss Sustainable Farms, LLC, CRM TECH performed a cultural resources study on approximately 34 acres of agricultural land in the City of Blythe, Riverside County, California (Figure 1). The subject property of the study, Assessor's Parcel Number 836-100-007, is located on the south side of Hobson Way and the east side of C Canal, in the southwest quarter of Section 31, Township 6 South, Range 23 East, San Bernardino Baseline and Meridian (Figures 2, 3).

The study is part of the environmental review process for the proposed construction of a cannabis cultivation facility on the property. The City of Blythe, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would potentially cause substantial adverse changes to any "historical resources," as defined by CEQA, that may exist in or near the project area.

In order to identify such resources, CRM TECH initiated a historical/archaeological resources records search, contacted Native American representatives, pursued historical background research, and carried out a systematic field survey. The following report is a complete account of the methods, results, and final conclusion of the study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

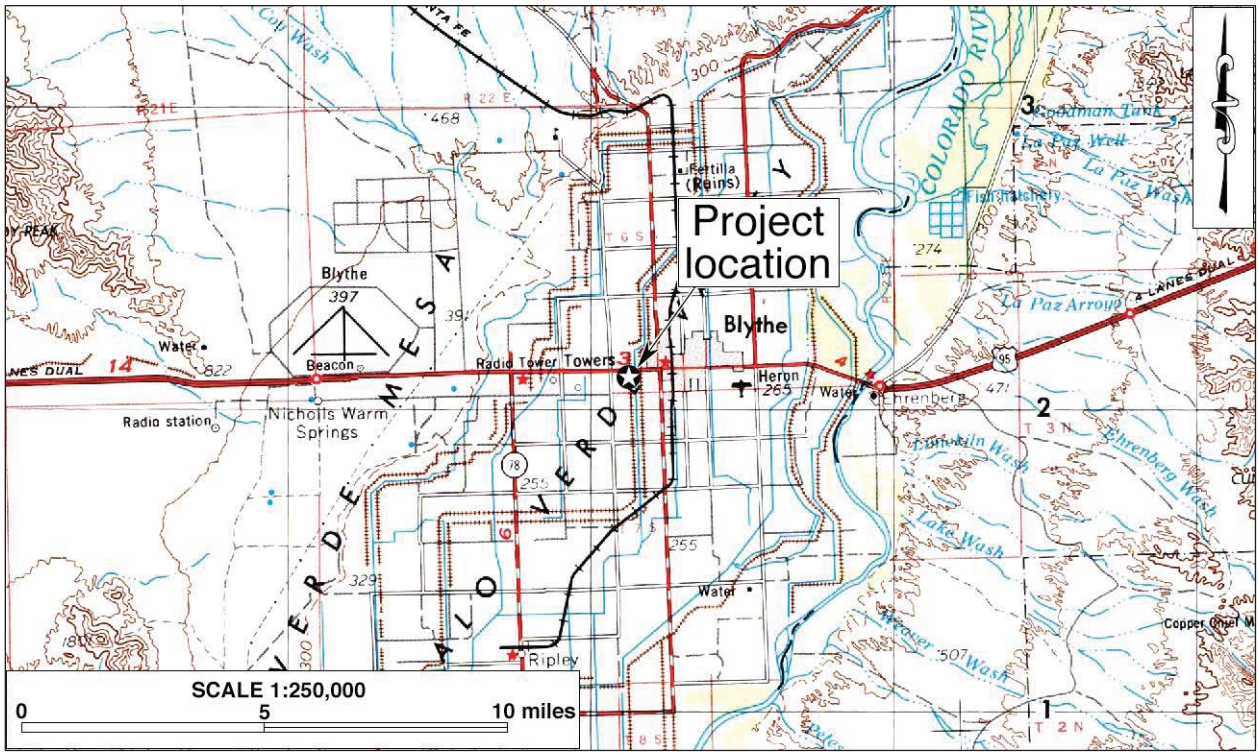


Figure 1. Project vicinity. (Based on USGS Salton Sea, Calif.-Ariz., 120'x60' quadrangle [USGS 1969])

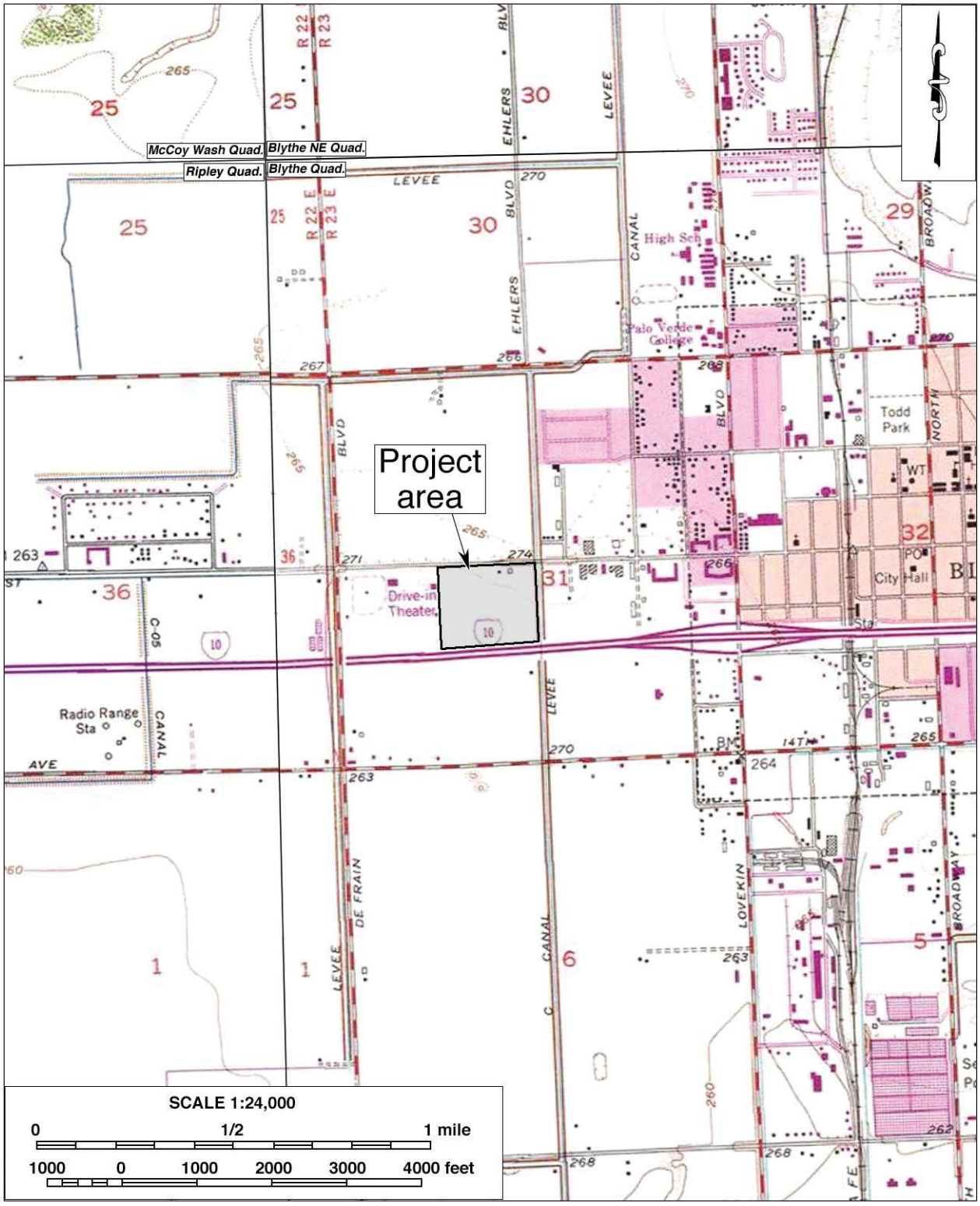


Figure 2. Project location. (Based on USGS Blythe, Blythe NE, McCoy Wash, and Ripley, Calif., 7.5' quadrangles [USGS 1970a; 1970b; 1975a; 1975b])

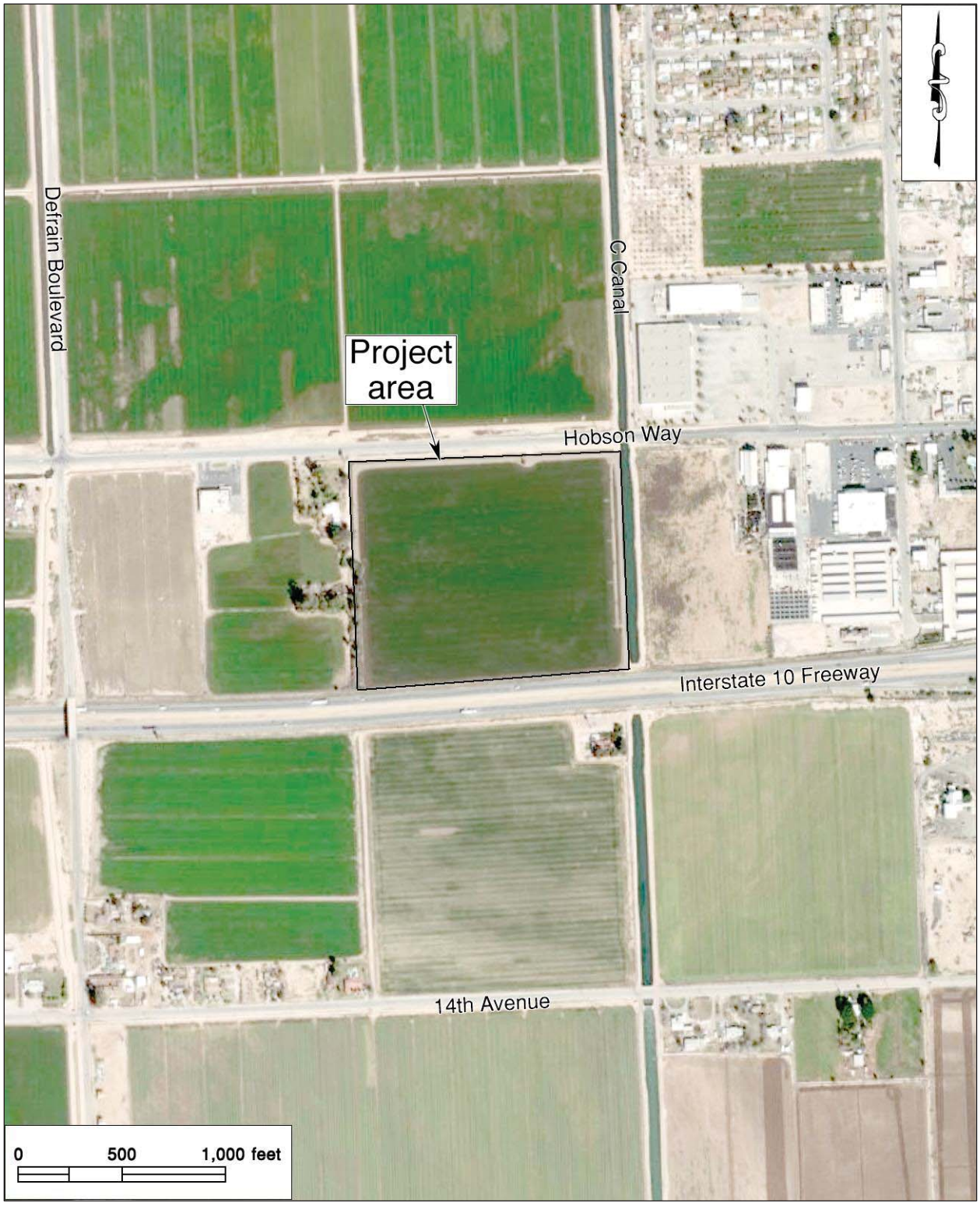


Figure 3. Recent satellite image of the project area.

SETTING

CURRENT NATURAL SETTING

The project area is located on the western outskirts of the City of Blythe, which lies in the heart of the Palo Verde Valley, a narrow inland valley along the Colorado River and the California-Arizona border that is known for its agricultural production. It is bounded by Interstate Highway 10 on the south, Hobson Way on the north, and C Canal on the east. An unpaved access road and a row of trees separate the property from the adjacent parcel to the west. The nearby area to the west of the project location is dominated by agricultural pursuits, and the land uses gradually shifts to suburban and commercial to the east.

The project area consists entirely of leveled and irrigated farmland that is currently used to grow alfalfa (Figure 4). The ground surface has been extensively disturbed by past grade adjustment, ongoing agricultural use and, along the edges, the construction of the adjacent canal and roadways. Elevations on the property range approximately between 260 to 265 feet above mean sea level. The surface soils are composed primarily of fine silty and clayey sand. In addition to the alfalfa crops in the field, the vegetation observed in the project area also includes tumbleweed and other small grasses and shrubs along the perimeters (Figure 4).

CULTURAL SETTING



Figure 4. Overview of the current natural setting of the project area. (Photograph taken on September 10, 2021; view to the northwest)

Prehistoric Context

It is widely acknowledged that human occupation in present-day southern California began approximately 8,000-12,000 years ago. Along the lower Colorado River valley, though, claims for human operation as early as 30,000-40,000 years before present have been made, but remain to be substantiated (Ezzo and Altschul 1993:10). In terms of prehistoric cultural influence, the Palo Verde Valley was traditionally much more closely associated with Arizona and New Mexico to the east, or the so-called Southwest, than with the rest of California to the west.

The cultural prehistory of southern California has been summarized into numerous chronologies, including those developed by Chartkoff and Chartkoff (1984), Warren (1984), and others. Specifically, the prehistory of Riverside County has been addressed by O'Connell et al. (1974), McDonald et al. (1987), Keller and McCarthy (1989), Grenda (1993), Goldberg (2001), and Horne and McDougall (2008). Although the beginning and ending dates of different cultural horizons vary regionally, the general framework of the prehistory of western Riverside County can be divided into three primary periods:

- Paleoindian Period (ca. 12,500-9,000 B.P.): Native peoples of this period created fluted spearhead bases designed to be hafted to wooden shafts. The distinctive method of thinning

bifaces and spearhead preforms by removing long, linear flakes leaves diagnostic Paleoindian markers at tool-making sites. Other artifacts associated with the Paleoindian toolkit include choppers, cutting tools, retouched flakes, and perforators. Sites from this period are very sparse across the landscape and most are deeply buried.

- Archaic Period (ca. 9,000-1,500 B.P.): Archaic sites are characterized by abundant lithic scatters of considerable size with many biface thinning flakes, bifacial preforms broken during manufacture, and well-made groundstone bowls and basin metates. As a consequence of making dart points, many biface thinning waste flakes were generated at individual production stations, which is a diagnostic feature of Archaic sites.
- Late Prehistoric Period (ca. 1,500 B.P.-contact): Sites from this period typically contain small lithic scatters from the manufacture of small arrow points, expedient groundstone tools such as tabular metates and unshaped manos, wooden mortars with stone pestles, acorn or mesquite bean granaries, ceramic vessels, shell beads suggestive of extensive trading networks, and steatite implements such as pipes and arrow shaft straighteners.

Ethnohistoric Context

The native population along the Lower Colorado River prior to European contact belonged to a broad language group known as the Yuman peoples. The Palo Verde Valley area was part of the traditional homeland of the Halchidhoma and/or Kohuana, two of the Yuman subgroups, but was later also utilized by Chemehuevi groups (Heizer and Whipple 1971:Map 1). To the north of the Palo Verde Valley, around present-day Parker, lived the Mohaves, and to the south, around Yuma, were the Quechans. Archaeologically, the antiquity of the Yuman tribes remains in question, although most anthropologists agree that they have occupied the Colorado River region for at least 1,000 years (Stewart 1983:1).

Unlike the native peoples living farther to the west, the Yumans practiced agriculture, as did their neighbors to the east and the south, and are reported to have practiced flood irrigation of crops (Gifford 1931:21). The Yuman cultures also engaged in frequent warfare and migrations, to such a degree that it is difficult to reconstruct tribal territorial boundaries. In 1604-1605, the Spanish explorer Juan de Oñate encountered the Halchidhoma much farther south of the Palo Verde Valley, near the Gila River (Kroeber 1925:799). A century later, Francisco Garcés, another Spanish explorer, reported that the group had moved to the Parker area, nearly 100 miles to the north (*ibid.*). By the 1830s, the Halchidomas had been driven from the river and absorbed by the Maricopas (*ibid.*).

Today, the nearest federally recognized Native American group to the APE is the Colorado River Indian Tribes, which claim some 3,500 members of Mohave, Chemehuevi, Hopi, and Navajo heritage (CRIT n.d.). Cultural persistence of these native people is demonstrated through the ongoing practice of bird singing, peon playing, funeral ceremonies, and other forms of ancient traditions.

Historic Context

Although Spanish explorers visited the general vicinity of the project area as early as the mid-1770s, this portion of the Lower Colorado Valley received little attention from the non-Native

people until the discovery of gold placers near La Paz in the early 1860s ushered in a miniature gold rush in the vicinity (Johnston 1987:206). The placers were largely exhausted by 1863, but La Paz managed to stay alive for three more years as a shipping port until the Colorado River shifted its course westward in 1866, leaving the former mining community landlocked (Thompson 1985). The shipping business moved to Ehrenberg, a new port along the river six miles to the south, and La Paz became a ghost town (*ibid*.).

The gold rush, though short-lived, gave rise to a number of competing stagecoach lines between Los Angles and Ehrenberg that operated along an ancient Indian trading route known as the Cocomaricopa Trail. Among Anglo-Americans, the trail was better known as the Bradshaw Trail after it was "discovered" in 1862 by William D. Bradshaw. Although they served as a lifeline to the La Paz gold fields, by the late 1870s the stagecoach services on the Bradshaw Trail were gradually discontinued, especially after the completion of the Southern Pacific Railroad from Los Angeles to Yuma in 1876-1877 (Ross n.d.:42).

Around that time, a large-scale land development scheme in the Palo Verde Valley began to sow the seeds of today's City of Blythe. In 1875, Thomas H. Blythe, an English-born San Francisco millionaire, and his partners bought 40,000 acres of government land in the area and began to construct irrigation canals in order to develop their vast holding for agricultural purposes (Gunther 1984:59). At the heart of the scheme was a townsite that Blythe named "Blythe City" in compliment to himself.

Due to delays caused by the lengthy litigation after his sudden death in 1883, the town plat of Blythe City was not filed with the Riverside County authorities until 1908 (Gunther 1984:60). The name of the town was soon shortened to Blythe, and in 1916, by a popular vote of 74 to 11, citizens of Blythe chose to incorporate their small town as the sixth city in Riverside County (*ibid*.). By 1912, the area was home to 12,000 acres of irrigated farmland, and the Palo Verde Irrigation District was formed in 1923 (Metzger et al. 1973:G2). By 1963, the District had constructed 295 miles of canals serving the 86,000 acres of irrigated farmland that dominated the local region at the time (*ibid*.). This agricultural character has been largely maintained to the present time.

RESEARCH METHODS

RECORDS SEARCH

The historical/archaeological resources records search was completed by the Eastern Information Center (EIC), University of California, Riverside, on July 7, 2021. During the records search, EIC administrative/coordinator assistant Eulices Lopez examined maps and records on file for previously identified cultural resources and existing cultural resources reports within a one-mile radius of the project area. Previously identified cultural resources include properties designated as California Historical Landmarks, Points of Historical Interest, or Riverside County Historic Landmarks, as well as those listed in the National Register of Historic Places, the California Register of Historical Resources, or the California Historical Resources Inventory.

NATIVE AMERICAN PARTICIPATION

On July 7, 2021, CRM TECH submitted a written request to the State of California Native American Heritage Commission (NAHC) for a records search in the commission's Sacred Lands File. Following the NAHC's recommendations and previously established consultation protocol, CRM TECH further contacted a total of 13 Native American representatives in the region in writing on July 30 for additional information on potential Native American cultural resources in the project vicinity. The correspondence between CRM TECH and the Native American representatives is summarized in the sections below and attached to this report as Appendix 2.

HISTORICAL RESEARCH

Historical background research for this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang. Sources consulted during the research included published literature in local and regional history, archival records of the U.S. Bureau of Land Management (BLM), U.S. General Land Office (GLO) land survey plat maps dated 1856-1874, U.S. Geological Survey (USGS) topographic maps dated 1942-1975, and aerial photographs taken in 1948-2020. The historic maps are accessible at the websites of the BLM and the USGS, and the aerial photographs are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

FIELD SURVEY

On September 10, 2021, CRM TECH archaeologist Daniel Ballester carried out the field survey of the project area. Dictated by variations in the density of vegetation cover and, consequently, in the level of ground visibility, the survey utilized a combination of reconnaissance-level and intensive-level field procedures. The intensive-level survey, covering mainly the western, northern, and eastern edges of the property (Figure 5), was conducted by walking a series of parallel transects at five-meter (approximately 15-foot) intervals.

Most of the interior portion of the property was surveyed at reconnaissance level by walking along roads across the alfalfa fields and inspecting ground surface wherever it is exposed, aided by an aerial drone flying over and photographing the areas covered by the crops. In this way, the entire project area was surveyed systematically for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years or older). In light of the extent of past disturbance to the ground surface, the levels of ground visibility and survey effort were deemed adequate for this study.

RESULTS AND FINDINGS

RECORDS SEARCH

According to EIC records, the project area had not been surveyed systematically for cultural resources prior to this study, and no cultural resources had been recorded within the project boundaries. However, EIC records further indicate that two linear surveys were previously completed along the eastern and southern project boundaries, focusing on the rights-of-way of C



Figure 5. Levels of field survey coverage.

Canal and Interstate Highway 10, respectively. During the survey along C Canal, completed in 2001, the canal was recorded into the California Historical Resources Inventory as Site 33-011044.

Lying outside but adjacent to the current project boundary, C Canal was described at the time as being 12 meters in width and lined with dirt, flanked by earthen levees on both sides (see Appendix 3). As the 2001 survey was conducted for a project that would not impact the canal, no further information was provided in the site records or the accompanying report, nor was Site 33-011044 evaluated for historic significance (Pigniolo and Murray 2001:37, 44). No other cultural resources were previously recorded within the scope of the records search.

NATIVE AMERICAN PARTICIPATION

In response to CRM TECH's inquiry, the NAHC reports in a letter dated July 26, 2021, that the Sacred Lands File search identified unspecified Native American cultural resources in the general vicinity of the project area and recommends that local Native American groups be contacted for further information. For that purpose, the NAHC provided a list of potential contacts in the region (see Appendix 2). Upon receiving the NAHC's reply, CRM TECH sent written requests for comments to all 13 tribal organizations on the referral list (see Appendix 2). For some of the tribes, CRM TECH contacted the designated spokespersons on cultural resources issues, as directed previously by tribal government staff, in lieu of the individuals recommended by the NAHC. The 13 tribal representatives contacted are listed below:

- Amanda Vance, Chairperson, Augustine Band of Cahuilla Mission Indians
- BobbyRay Esparza, Cultural Coordinator, Cahuilla Band of Indians
- John Gomez, Jr., Cultural Resource Coordinator, Ramona Band of Cahuilla Indians
- Joseph Ontiveros, Tribal Historic Preservation Officer, Soboba Band of Luiseño Indians
- Michael Mirelez, Cultural Resources Coordinator, Cabazon Band of Mission Indians
- Bridget Sandate, Director of the Chemehuevi Cultural Center, Chemehuevi Indian Tribe
- David Harper, Acting Tribal Historic Preservation Officer, Colorado River Indian Tribes
- Linda Otero, Director of the AhaMaKav Cultural Society, Fort Mojave Indian Tribe
- Ray Chapparosa, Chairperson, Los Coyotes Band of Cahuilla and Cupeño Indians
- Ann Brierty, Tribal Historic Preservation Officer, Morongo Band of Mission Indians
- Jill McCormick, Historic Preservation Officer, Quechan Tribe of Fort Yuma Reservation
- Alesia Reed, Cultural Chair, Torres Martinez Desert Cahuilla Indians
- Sara Bliss, Cultural Resources Manager, Twenty-Nine Palms Band of Mission Indians

In an e-mail reply on July 30, 2021, Jill McCormick states that the Quechan Tribe of Fort Yuma Reservation has no comments regarding this project (see Appendix 2). To date, none of the other 12 tribes has responded to the requests for comments.

HISTORICAL RESEARCH

Historical sources consulted for this study suggest that development in the project vicinity in historic times followed a typical pattern for rural towns and communities established along transportation

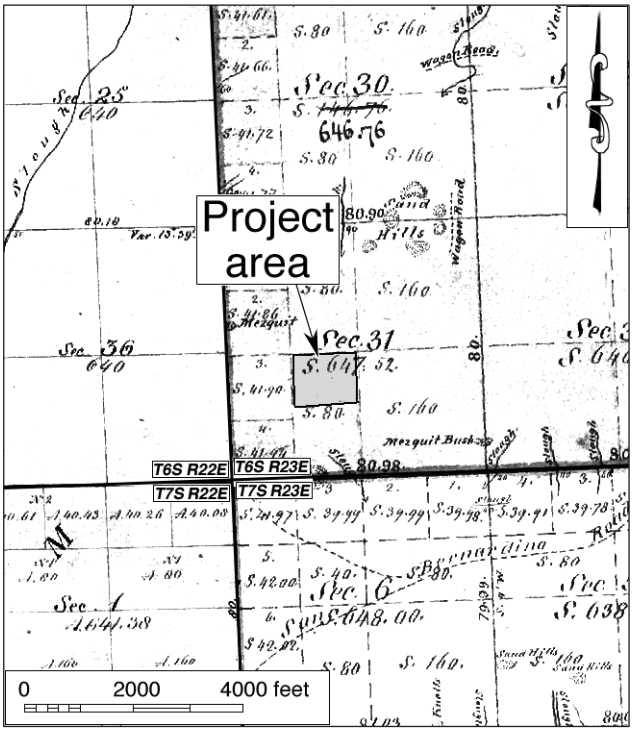


Figure 6. The project area and vicinity in 1856-1874. (Source: GLO 1856a; 1856b; 1874a; 1874b)

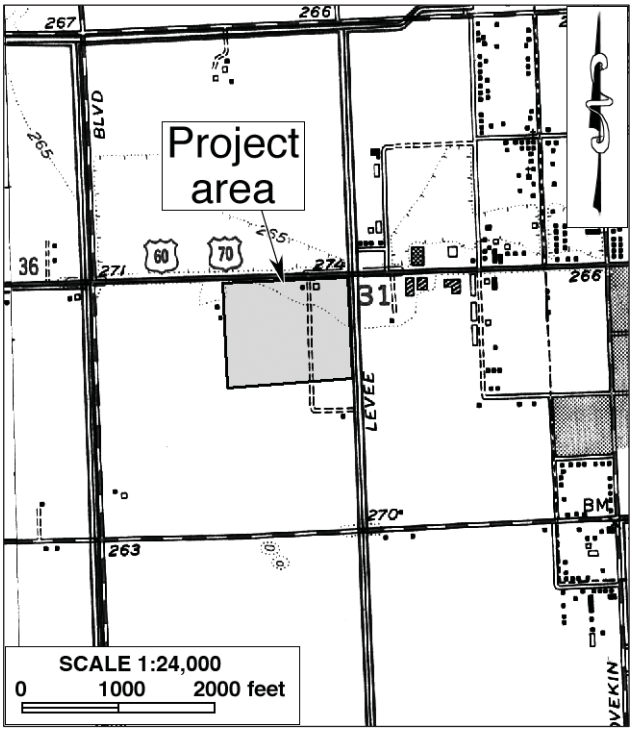


Figure 7. The project area and vicinity in 1948. (Source: USGS 1951)

corridors across southern California (Figures 6, 7; NETR Online 1948-1970). In the 1850s-1870s, when the U.S. government completed the first systematic land surveys in the Palo Verde Valley, the only man-made features reported in the project vicinity were a sparse web of wagon roads (Figure 6). Most notable among these was the main road to San Bernardino, a part of the historic Cocomaricopa-Bradshaw Trail, which traversed approximately one mile south of the project location (Figure 6).

As mentioned above, during the 1870s Thomas H. Blythe began to acquire large tracts of land in the area and build an irrigation system for the development of an agrarian settlement (Gunther 1984:59). By the 1940s, most of the major irrigation canals in use around the City of Blythe were known to be present along their present-day alignments, including the segment of C Canal along the eastern project boundary (U.S. Army 1942; NETR Online 1948; Figure 7). To the north of the project area, Hobson Way served at the time as a part of U.S. Route 60/70, the original Ocean-to-Ocean Highway from southern California to Virginia and North Carolina (*ibid.*). It remained in that function until the construction of Interstate Highway 10 to the south during the 1960s (Figures 2, 7).

In 1940, at least one building appeared to be present at the project location (U.S. Army 1942). By 1948, two buildings were known to be located in the eastern portion of the project area, evidently a farmhouse and a barn, accompanied by a cluster of trees and an unpaved road running north-south across the parcel (Figure 7). Between 1970 and 1994, however, all of these features were removed, leaving no identifiable remnants in the landscape (NETR Online 1970-1994). Since then, the entire project area has been used as an agricultural field (NETR Online 1994-2018).

FIELD SURVEY

The field survey encountered no cultural resources within the project boundaries. Outside but adjacent to the eastern project boundary, C Canal was observed in the same general condition as recorded in 2001. The only feature associated with the canal lying within the project boundaries is a portion of the earthen levee along the western bank of the canal. Both the canal and the levee show clear signs of frequent upgrading and maintenance in the modern era, and as a result neither of them demonstrates any distinctively historical characteristics (Figure 8). On the western side of the levee, a diversion ditch that is partially lined with concrete and runs parallel to the main canal was noted during the survey (Figure 8). A minor irrigation feature of unclear age, the diversion ditch has little potential for historic significance. Therefore, it requires no further study.



Figure 8. Diversion ditch along the eastern project boundary; C Canal and the accompanying earthen levee to the left. (Photograph taken on September 10, 202; view to the south)

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and assist the City of Blythe in determining whether such resources meet the official definition of "historical resources," as provided in the California Public Resources Code, in particular CEQA. According to PRC §5020.1(j), "'historical resource' includes, but is not limited to, any object, building, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in

the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California."

More specifically, CEQA guidelines state that the term "historical resources" applies to any such resources listed in or determined to be eligible for listing in the California Register of Historical Resources, included in a local register of historical resources, or determined to be historically significant by the lead agency (Title 14 CCR §15064.5(a)(1)-(3)). Regarding the proper criteria for the evaluation of historical significance, CEQA guidelines mandate that "generally a resource shall be considered by the lead agency to be 'historically significant' if the resource meets the criteria for listing on the California Register of Historical Resources" (Title 14 CCR §15064.5(a)(3)). A resource may be listed in the California Register if it meets any of the following criteria:

(1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
(2) Is associated with the lives of persons important in our past.
(3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
(4) Has yielded, or may be likely to yield, information important in prehistory or history. (PRC §5024.1(c))

In summary of the research results presented above, no potential "historical resources" were identified within the project area throughout the course of this study, but the segment of C Canal adjacent to the eastern project boundary was previously recorded as a part of Site 33-011044. This segment of the canal is known to have followed the same alignment since at least the 1940s. As a working component of the modern irrigation infrastructure, however, the nondescript earthen canal demonstrates no distinctively historical characteristics due to frequent upgrading and maintenance in recent decades. As such, it is unlikely to meet the definition of a "historical resource" under CEQA provisions because of the lack of sufficient historic integrity. In any event, since the proposed project has no potential to alter the current characteristics of the canal substantially, Site 33-011044 requires no further consideration during this study, including a full evaluation of its historic significance.

The Sacred Lands File search by the NAHC produced positive results for Native American cultural resources in the general vicinity, but none of the local tribes contacted during this study identified any specific site or issue of concern within or adjacent to the project boundaries. Much of the ground surface in the project area was obscured by alfalfa crops at the time of survey, but in light of the extensive ground disturbance that has occurred on the property in the past, ground visibility is not considered a significant hinderance to the survey efforts for this study. Based on these findings, and in light of the criteria listed above, this study concludes that no "historical resources" exist within the project area.

CONCLUSION AND RECOMMENDATIONS

CEQA establishes that "a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment" (PRC §21084.1). "Substantial adverse change," according to PRC §5020.1(q), "means demolition,

destruction, relocation, or alteration such that the significance of a historical resource would be impaired." Since no "historical resources," as defined by CEQA, have been identified within the project area, and since the proposed project has no potential to affect the current conditions of C Canal, the only cultural resource recorded adjacent to the project boundaries, CRM TECH presents the following recommendations to the City of Blythe:

- The project as currently proposed would not cause a substantial adverse change to any known "historical resources."
- No further cultural resources investigation is necessary for the project unless development plans undergo such changes as to include areas not covered by this study.
- If buried cultural materials are encountered during any earth-moving operations associated with the project, all work within 50 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

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APPENDIX 1
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, University of California, Riverside.
1987	M.A., American History, Yale University, New Haven, Connecticut.
1982	B.A., History, Northwestern University, Xi'an, China.
2000	"Introduction to Section 106 Review," presented by the Advisory Council on Historic Preservation and the University of Nevada, Reno.
1994	"Assessing the Significance of Historic Archaeological Sites," presented by the Historic Preservation Program, University of Nevada, Reno.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1993-2002	Project Historian/Architectural Historian, CRM TECH, Riverside, California.
1993-1997	Project Historian, Greenwood and Associates, Pacific Palisades, California.
1991-1993	Project Historian, Archaeological Research Unit, University of California, Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, University of California, Riverside.
1988-1993	Research Assistant, American Social History, University of California, Riverside.
1985-1988	Research Assistant, Modern Chinese History, Yale University.
1985-1986	Teaching Assistant, Modern Chinese History, Yale University.
1982-1985	Lecturer, History, Xi'an Foreign Languages Institute, Xi'an, China.

Cultural Resources Management Reports

Preliminary Analyses and Recommendations Regarding California's Cultural Resources Inventory System (with Special Reference to Condition 14 of NPS 1990 Program Review Report). California State Office of Historic Preservation working paper, Sacramento, September 1990.

Numerous cultural resources management reports with the Archaeological Research Unit, Greenwood and Associates, and CRM TECH, since October 1991.

PRINCIPAL INVESTIGATOR/ARCHAEOLOGIST
Michael Hogan, Ph.D., RPA (Registered Professional Archaeologist)

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	"Section 106—National Historic Preservation Act: Federal Law at the Local Level," UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside, California.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands, California.
1992-1998	Assistant Research Anthropologist, University of California, Riverside.
1992-1995	Project Director, Archaeological Research Unit, U.C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U.C. Riverside.
1984-1998	Project Director, Field Director, Crew Chief, and Archaeological Technician for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Principal investigator for, author or co-author of, and contributor to numerous cultural resources management study reports since 1986.

Memberships

Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PROJECT ARCHAEOLOGIST/FIELD DIRECTOR
Daniel Ballester, M.S., RPA (Registered Professional Archaeologist)

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.
2007	Certificate in Geographic Information Systems (GIS), California State University, San Bernardino.
2002	"Historic Archaeology Workshop," presented by Richard Norwood, Base Archaeologist, Edwards Air Force Base; presented at CRM TECH, Riverside, California.

Professional Experience

2002-	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
2011-2012	GIS Specialist for Caltrans District 8 Project, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew Chief, Garcia and Associates, San Anselmo, California.
2009-2010	Field Crew, ECorp, Redlands.
1999-2002	Project Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

Cultural Resources Management Reports

Field Director, co-author, and contributor to numerous cultural management reports since 2002.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Ben Kerridge, M.A.

Education

2014	Geoarchaeological Field School, Institute for Field Research, Kephallenia, Greece.
2010	M.A., Anthropology, California State University, Fullerton.
2009	Project Management Training, Project Management Institute/CH2M HILL, Santa Ana, California.
2004	B.A., Anthropology, California State University, Fullerton.

Professional Experience

2015-	Project Archaeologist/Report Writer, CRM TECH, Colton, California.
2015	Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
2009-2014	Publications Delivery Manager, CH2M HILL, Santa Ana, California.
2010-	Naturalist, Newport Bay Conservancy, Newport Beach, California.
2009-2010	Senior Commentator, GameReplays.org.
2006-2009	Technical Publishing Specialist, CH2M HILL, Santa Ana, California.
2002-2007	Host and Head Writer, *The Rational Voice* Radio Program, Titan Radio, California State University, Fullerton.
2002-2006	English Composition/College Preparation Tutor, various locations, California.

Papers Presented

- Geomorphological Survey of Tracts T126–T151 to Support Archaeological Shoreline Research Project. Institute for Field Research, Kephallenia, Greece, 2014.
- The Uncanny Valley of the Shadow of Modernity: A Re-examination of Anthropological Approaches to Christianity. Graduate Thesis, California State University, Fullerton, 2010.
- Ethnographic Endeavors into the World of Counterstrike. 74th Annual Conference of the Southwestern Anthropological Association, 2003.

Cultural Resources Management Reports

Co-author and contributor to numerous cultural and paleontological resources management reports since 2013.

Memberships

Society for California Archaeology; Pacific Coast Archaeological Society.

APPENDIX 2

CORRESPONDENCE WITH NATIVE AMERICAN REPRESENTATIVES*

* Thirteen local Native American representatives were contacted; a sample letter is included in this appendix.

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Boulevard, Suite 100
West Sacramento, CA 95691
(916)373-3710
(916)373-5471 (Fax)
nahc@nahc.ca.gov

Project: Proposed Cannabis Cultivation Project on Assessor's Parcel Number 836-100-007 (CRM TECH No. 3752A)

County: Riverside

USGS Quadrangle Name: Blythe, Blythe NE, Ripley, and McCoy Wash, Calif.

Township 6 South **Range** 23 East SB **BM; Section(s)**: 31

Company/Firm/Agency: CRM TECH

Contact Person: Nina Gallardo

Street Address: 1016 E. Cooley Drive, Suite A/B

City: Colton, CA **Zip:** 92324

Phone: (909) 824-6400 **Fax:** (909) 824-6405

Email: ngallardo@crmtech.us

Project Description: The primary component of the project is to develop a cannabis cultivation facility on approximately 34 acres of land in APN 836-100-007, located along the south side of Hobson Way, west of Carlton Avenue, and just north of the I-10 Freeway, in the City of Blythe, Riverside County, California.

July 7, 2021

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

COMMISSIONER
[**Vacant**]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

July 26, 2021

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Cannabis Cultivation Project, Riverside County

Dear Ms. Gallardo:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the tribes on the attached list for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green

Andrew Green
Cultural Resources Analyst

Attachment

Native American Heritage Commission
Native American Contact List
Riverside County
7/26/2021

Augustine Band of Cahuilla Mission Indians
Amanda Vance, Chairperson
P.O. Box 846 — Cahuilla
Coachella, CA, 92236
Phone: (760) 398 - 4722
Fax: (760) 369-7161
hhaines@augustinetribe.com

Cabazon Band of Mission Indians
Doug Welmas, Chairperson
84-245 Indio Springs Parkway — Cahuilla
Indio, CA, 92203
Phone: (760) 342 - 2593
Fax: (760) 347-7880
jstapp@cabazonindians-nsn.gov

Cahuilla Band of Indians
Daniel Salgado, Chairperson
52701 U.S. Highway 371 — Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 5549
Fax: (951) 763-2808
Chairman@cahuilla.net

Chemehuevi Indian Tribe
Sierra Pencille, Chairperson
P.O. Box 1976 1990 Palo Verde Drive — Chemehuevi
Havasu Lake, CA, 92363
Phone: (760) 858 - 4219
Fax: (760) 858-5400
chairman@cit-nsn.gov

Colorado River Indian Tribes
Dennis Patch, Chairman
26600 Mojave Road — Chemehuevi
Parker, AZ, 85344 — Mojave
Phone: (928) 669 - 9211
Fax: (928) 669-1925
amanda.barrera@crit-nsn.gov

Fort Mojave Indian Tribe
Timothy Williams, Chairperson
500 Merriman Ave — Mojave
Needles, CA, 92363
Phone: (760) 629 - 4591
Fax: (760) 629-5767
lindaotero@fortmojave.com

Los Coyotes Band of Cahuilla and Cupeño Indians
Ray Chapparosa, Chairperson
P.O. Box 189 — Cahuilla
Warner Springs, CA, 92086-0189
Phone: (760) 782 - 0711
Fax: (760) 782-0712

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5110
Fax: (951) 755-5177
abrierty@morongo-nsn.gov

Morongo Band of Mission Indians
Ann Brierty, THPO
12700 Pumarra Road — Cahuilla, Serrano
Banning, CA, 92220
Phone: (951) 755 - 5259
Fax: (951) 572-6004
abrierty@morongo-nsn.gov

Quechan Tribe of the Fort Yuma Reservation
Manfred Scott, Acting Chairman
Kw'ts'an Cultural Committee
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (928) 750 - 2516
scottmanfred@yahoo.com

Quechan Tribe of the Fort Yuma Reservation
Jill McCormick, Historic Preservation Officer
P.O. Box 1899 — Quechan
Yuma, AZ, 85366
Phone: (760) 572 - 2423
historicpreservation@quechantribe.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Cannabis Cultivation Project, Riverside County.

Native American Heritage Commission
Native American Contact List
Riverside County
7/26/2021

Ramona Band of Cahuilla
Joseph Hamilton, Chairperson
P.O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
admin@ramona-nsn.gov

Ramona Band of Cahuilla
John Gomez, Environmental Coordinator
P. O. Box 391670 Cahuilla
Anza, CA, 92539
Phone: (951) 763 - 4105
Fax: (951) 763-4325
jgomez@ramona-nsn.gov

Soboba Band of Luiseno Indians
Isaiah Vivanco, Chairperson
P. O. Box 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 654 - 5544
Fax: (951) 654-4198
ivivanco@soboba-nsn.gov

Soboba Band of Luiseno Indians
Joseph Ontiveros, Cultural Resource Department
P.O. BOX 487 Cahuilla
San Jacinto, CA, 92581 Luiseno
Phone: (951) 663 - 5279
Fax: (951) 654-4198
jontiveros@soboba-nsn.gov

Torres-Martinez Desert Cahuilla Indians
Michael Mirelez, Cultural Resource Coordinator
P.O. Box 1160 Cahuilla
Thermal, CA, 92274
Phone: (760) 399 - 0022
Fax: (760) 397-8146
mmirelez@tmdci.org

Twenty-Nine Palms Band of Mission Indians
Anthony Madrigal, Tribal Historic Preservation Officer
46-200 Harrison Place Chemehuevi
Coachella, CA, 92236
Phone: (760) 775 - 3259
amadrigal@29palmsbomi-nsn.gov

Twenty-Nine Palms Band of Mission Indians
Darrell Mike, Chairperson
46-200 Harrison Place Chemehuevi
Coachella, CA, 92236
Phone: (760) 863 - 2444
Fax: (760) 863-2449
29chairman@29palmsbomi-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Proposed Cannabis Cultivation Project, Riverside County.

July 30, 2021

RE: Proposed Cannabis Cultivation Project
Assessor's Parcel Number (APN) 836-100-007
34 Acres in the City of Blythe, Riverside County, California
CRM TECH Contract #3752A

Dear Tribal Representative:

I am writing to bring your attention to an ongoing CEQA-compliance study for the proposed project referenced above. The project entails the construction of twelve buildings for a cannabis cultivation facility on approximately 34 acres of land in APN 836-100-007, located along the south side of Hobson Way, west of Carlton Avenue, and just north of the I-10 freeway, in the City of Blythe, Riverside County, California. The attached map, based on the USGS Blythe, Blythe NE, McCoy Wash, and Ripley, Calif., 7.5' quadrangles, depict the location of the project area in Section 31, T6S R23E, SBBM.

In a letter dated July 26, 2021, the Native American Heritage Commission reports that the results of the Sacred Lands File search were positive for tribal cultural resources and recommends contacting local tribes for further information (see attached). Therefore, as part of the cultural resources study for this project, I am writing to request your input on potential Native American cultural resources in or near the project area.

Please respond at your earliest convenience if you have any specific knowledge of sacred/religious sites or other sites of Native American traditional cultural value in or near the project area, or any other information to consider during the cultural resources investigations. Any information or concerns may be forwarded to CRM TECH by telephone, e-mail, facsimile, or standard mail. Requests for documentation or information we cannot provide will be forwarded to our client and/or the lead agency, namely the City of Blythe.

We would also like to clarify that, as the cultural resources consultant for the project, CRM TECH is not involved in the AB 52-compliance process or in government-to-government consultations. The purpose of this letter is to seek any information that you may have to help us determine if there are cultural resources in or near the project area that we should be aware of and to help us assess the sensitivity of the project area. Thank you for your time and effort in addressing this important matter.

Respectfully,

Nina Gallardo
Project Archaeologist/Native American liaison
CRM TECH
Email: ngallardo@crmtech.us

Encl.: NAHC response letter and project location map

From: Quechan Historic Preservation Officer <historicpreservation@quechantribe.com>
Sent: Friday, July 30, 2021 2:01 PM
To: ngallardo@crmtech.us
Subject: RE: Cannabis Cultivation Project, APN 836-100-007, City of Blythe, Riverside County (CRM TECH No. 3752A)

This email is to inform you that we have no comments on this project.

APPENDIX 3

CALIFORNIA HISTORICAL RESOURCES INVENTORY RECORD FORMS

Site 33-011044

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
PRIMARY RECORD

Primary #: P-33-11044
HRI #:
Trinomial:

NRHP Status Code:

Other Listings:
Review Code: Reviewer: Date:

RECEIVED IN
JUL 1 9 2001
EIC

 Resource Name or #: (Assigned by recorder): BW-S-2

P1. Other Identifier: "C" Canal

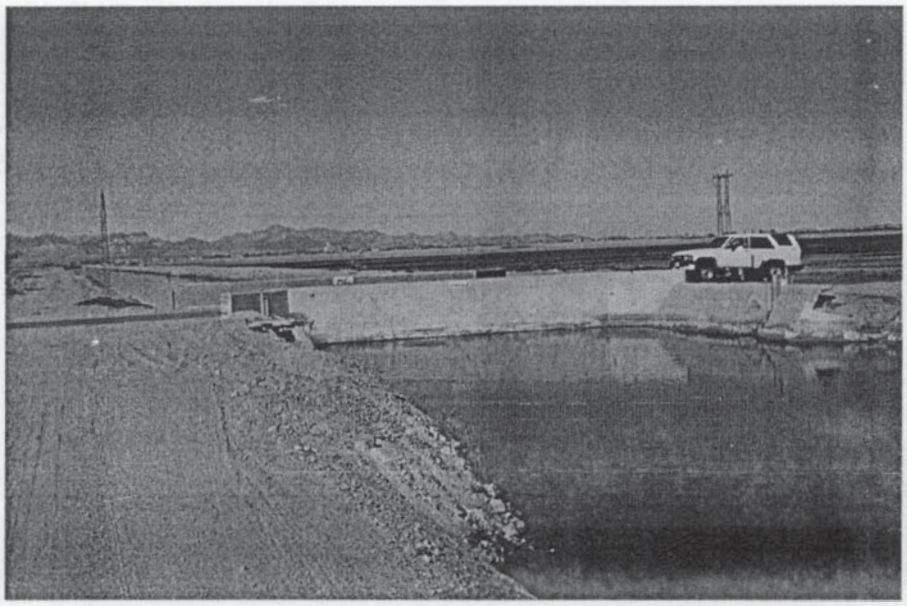
P2. **Location:** ■ Not for Publication ☐ Unrestricted **a. County:** Riverside/Imperial
and (P2b and P2c or P2d. Attach a Location Map as necessary.)
b. **USGS 7.5' Quad:** Blythe NE/Palo Verde Date: 1951 (photorevised 1970)/1965 (photorevised 1975) T 6S/9S ; R 23E/22E ; north point: NE **1/4 of** NE **1/4 of Section** 17; south point: NW **1/4 of** NW **1/4 of Section** 8; S.B.M.
c. Address: None City: Zip:
d. UTM: Zone 11 ; NAD 1927 ; north point: 723210 mE/ 3726990 mN; south point: 715150 mE/ 3699900 mN
e. Other Locational Data (e.g., parcel #, directions to resource, elevation, etc., as appropriate): The site is located in the southeastern portion of Riverside County and the northeastern portion of Imperial County. The canal begins on the west border of the city of Blythe and travels south past the city of Ripley, ending in Imperial County, southeast of Palo Verde

P3a. **Description** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries):This site is an historic agriculture canal that is 12 m wide. The levees are wide enough to drive on, and the canal is lined with dirt.

P3b. **Resource Attributes** (List attributes and codes): HP20. Canal/Aqueduct

P4. **Resources Present:** ☐Building ☐Structure ☐Object■Site ☐District ☐Element of District ☐ Other (Isolates, etc.)

P5a. Photograph or Drawing (Photo required for buildings, structures, and objects)



P5b. Description of Photo (View, date, accession #):

P6. **Age and Sources:** ■ Historic ☐ Prehistoric ☐Both

P7. **Owner and Address:**
Palo Verde Irrigation District

P8. **Recorded by** (Name, affiliation, and address):
John E. Dietler
Julianne Toenjes

Tierra Environmental Services
9903-E Businesspark Avenue
San Diego, CA 92131

P9. **Date Recorded:**
November 7, 2000

P10. **Survey Type** (Describe):
Intensive Surface Inventory

P11. **Report Citation** (Cite survey report and other sources, or enter "none"):Pigniolo, Andrew R., Michael Baksh, and Stephanie Murray 2000 Cultural Resources Survey Report for the Blythe Water Project, Riverside County, California.
Attachments: ☐ NONE ■ Location Map ☐ Sketch Map ☐ Continuation Sheet ☐ Building, Structure, and Object Record ☐ Archaeological Record ☐ District Record ☐ Linear Feature Record ☐ Milling Station Record ☐ Rock Art Record ☐ Artifact Record ☐ Photograph Record ☐ Other (List):

Required information is bold

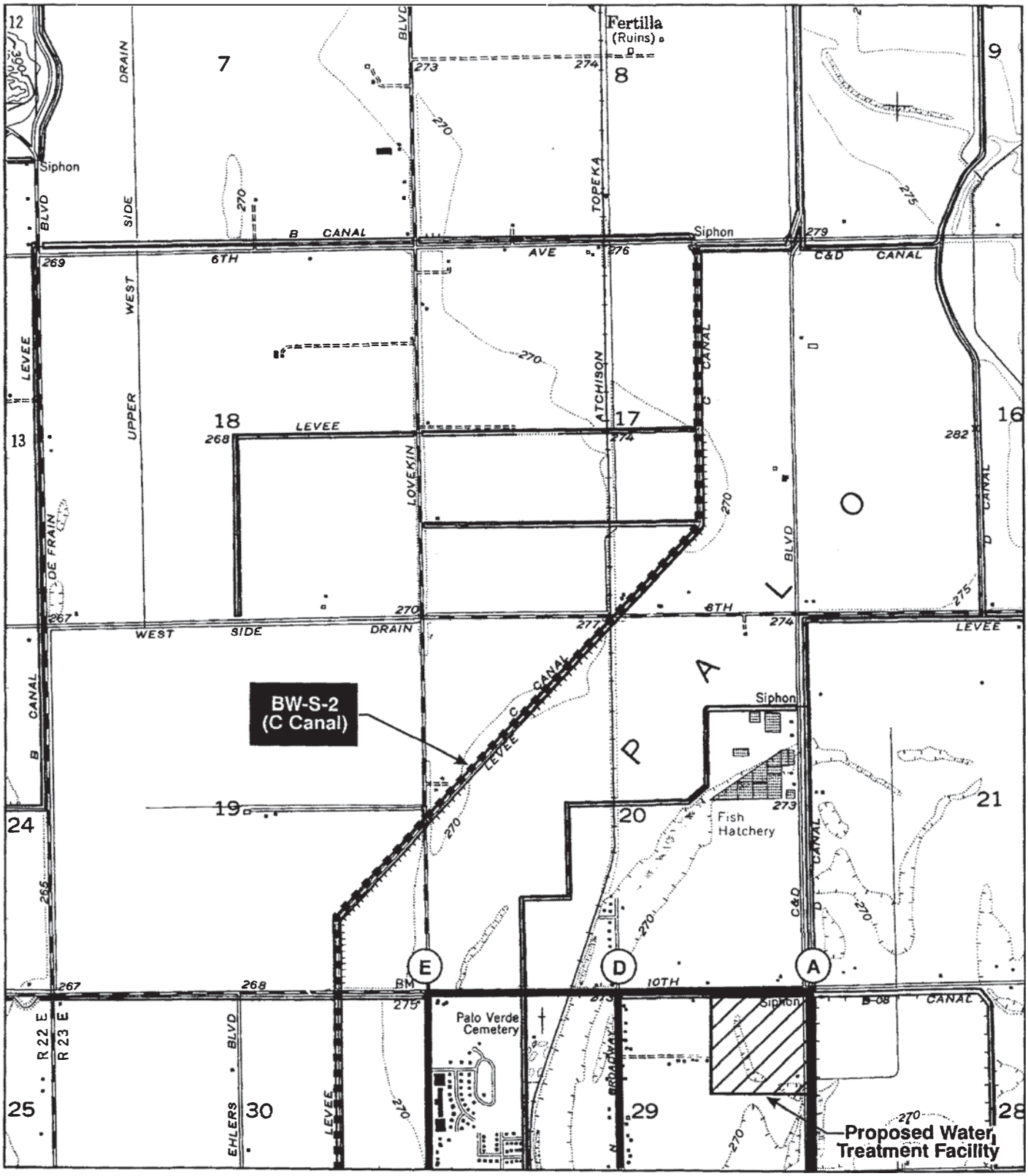
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: 33-11044
Trinomial:

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2a (C-Canal)

Map Name: Blythe NE, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

33-11044

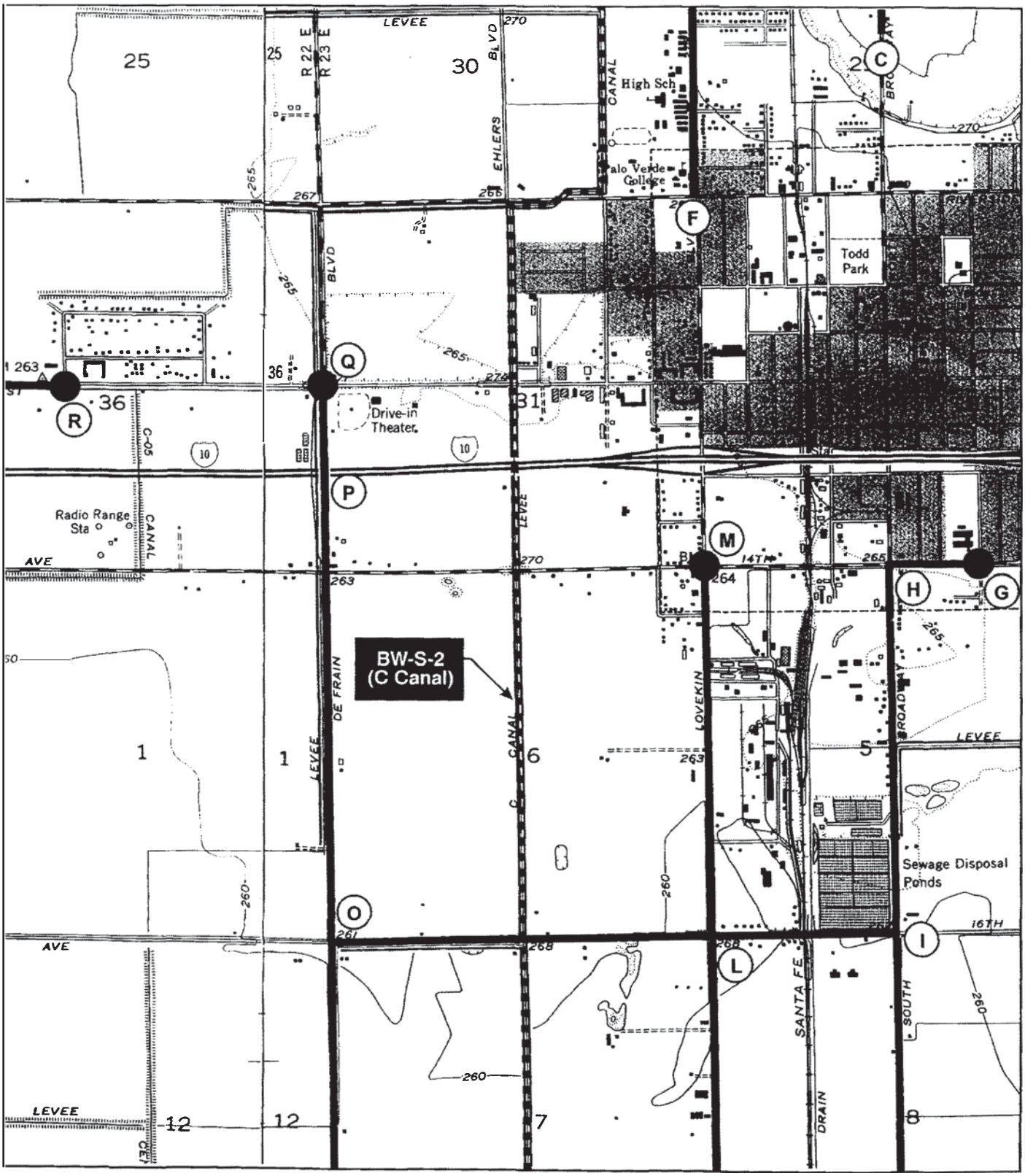
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: _____
Trinomial: _____

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2b (C-Canal)

Map Name: Blythe, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

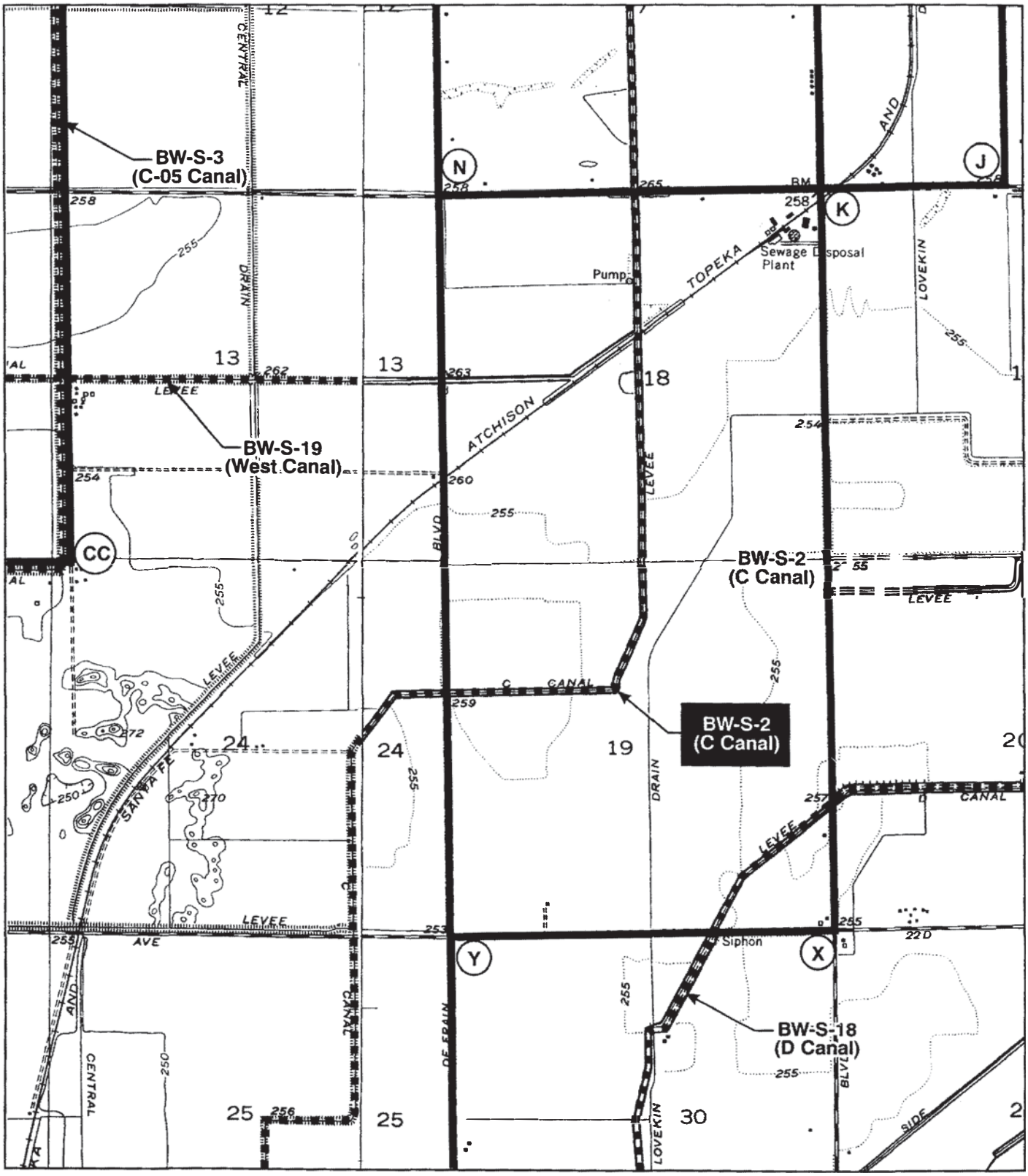
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: 33-11044
Trinomial: _

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2c (C-Canal)

Map Name: Blythe and Ripley, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

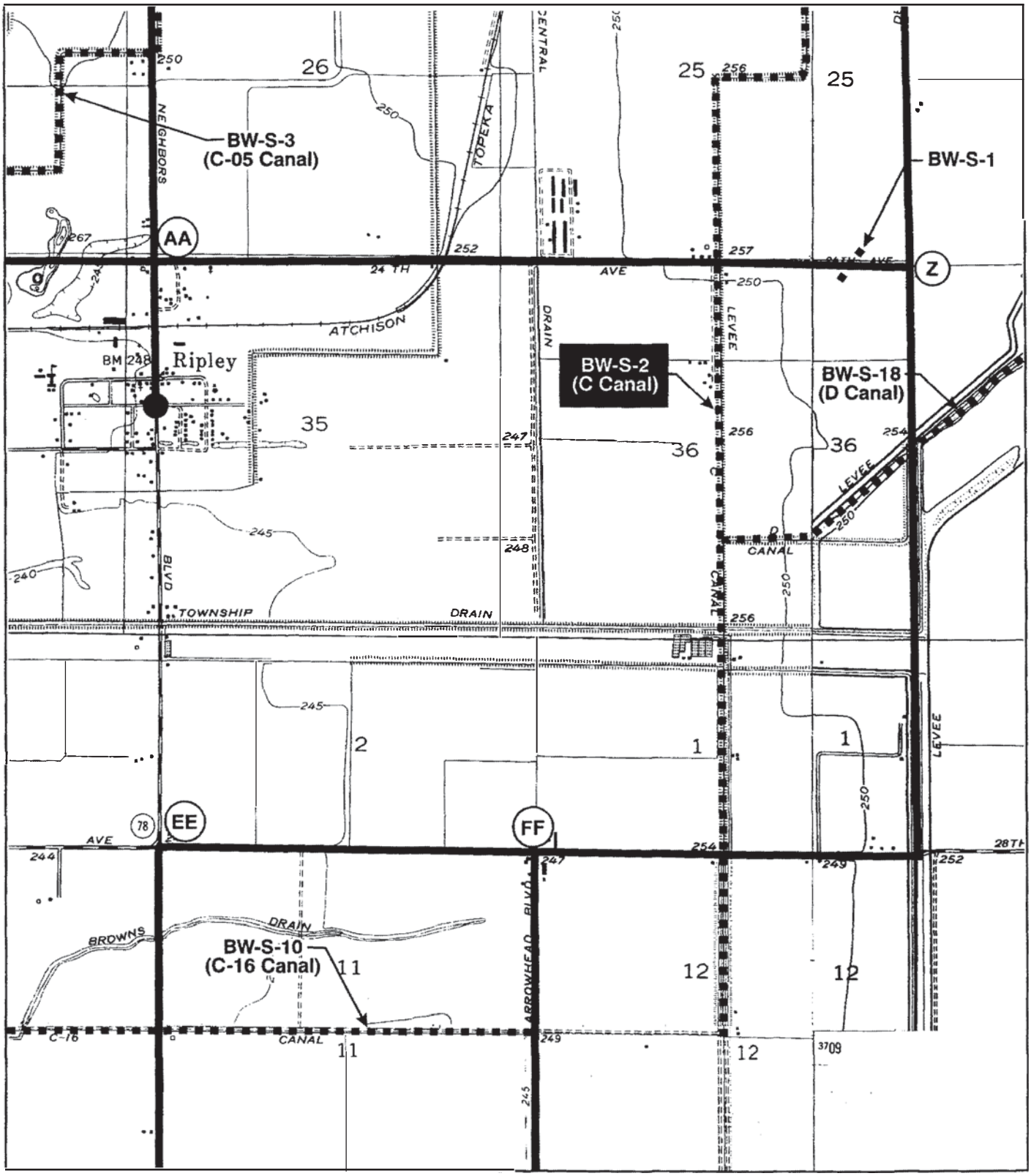
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: 33-11044
Trinomial: _

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2d (C-Canal)

Map Name: Ripley, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

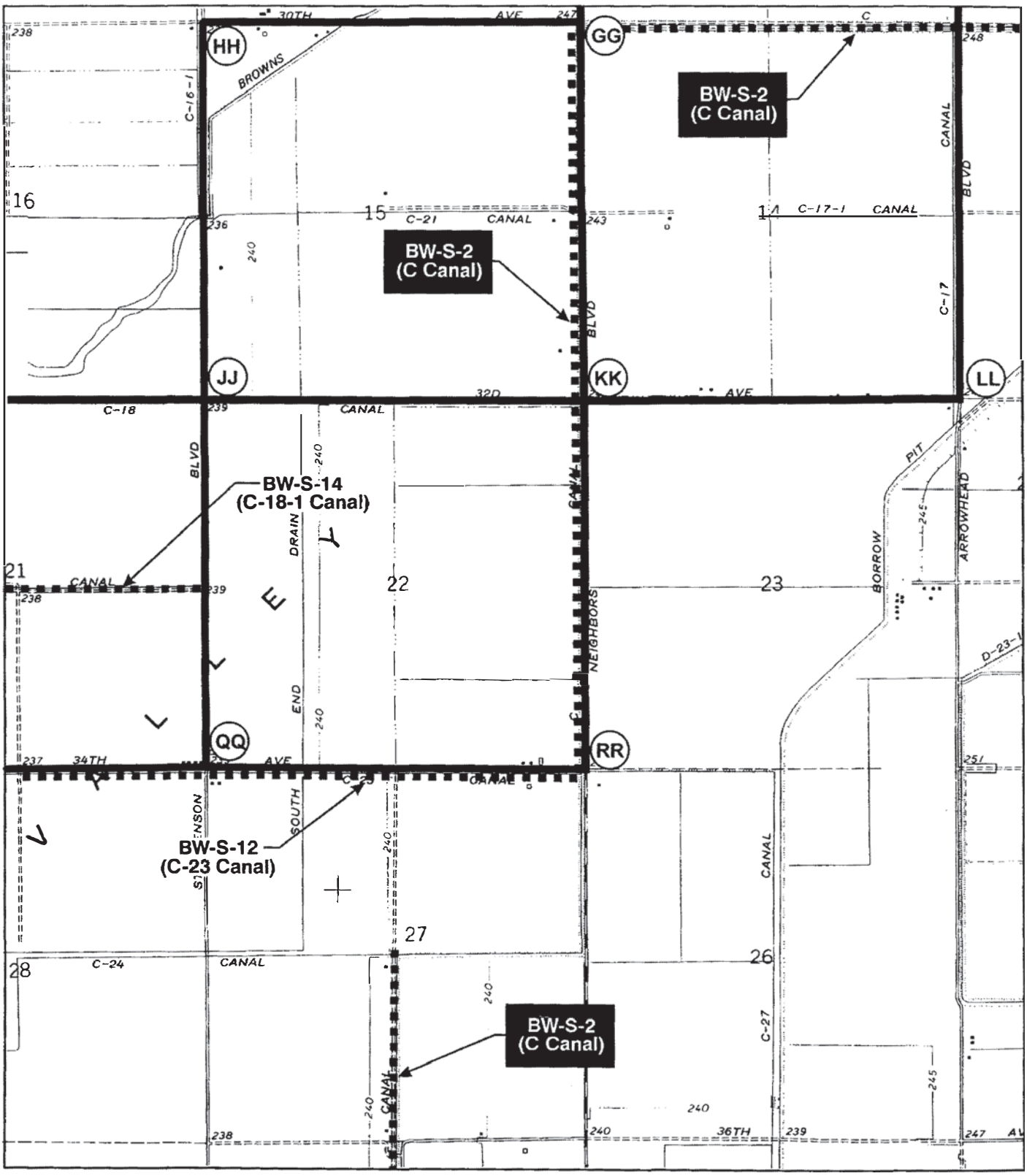
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: 33-11044
Trinomial:

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2e (C-Canal)

Map Name: Palo Verde, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

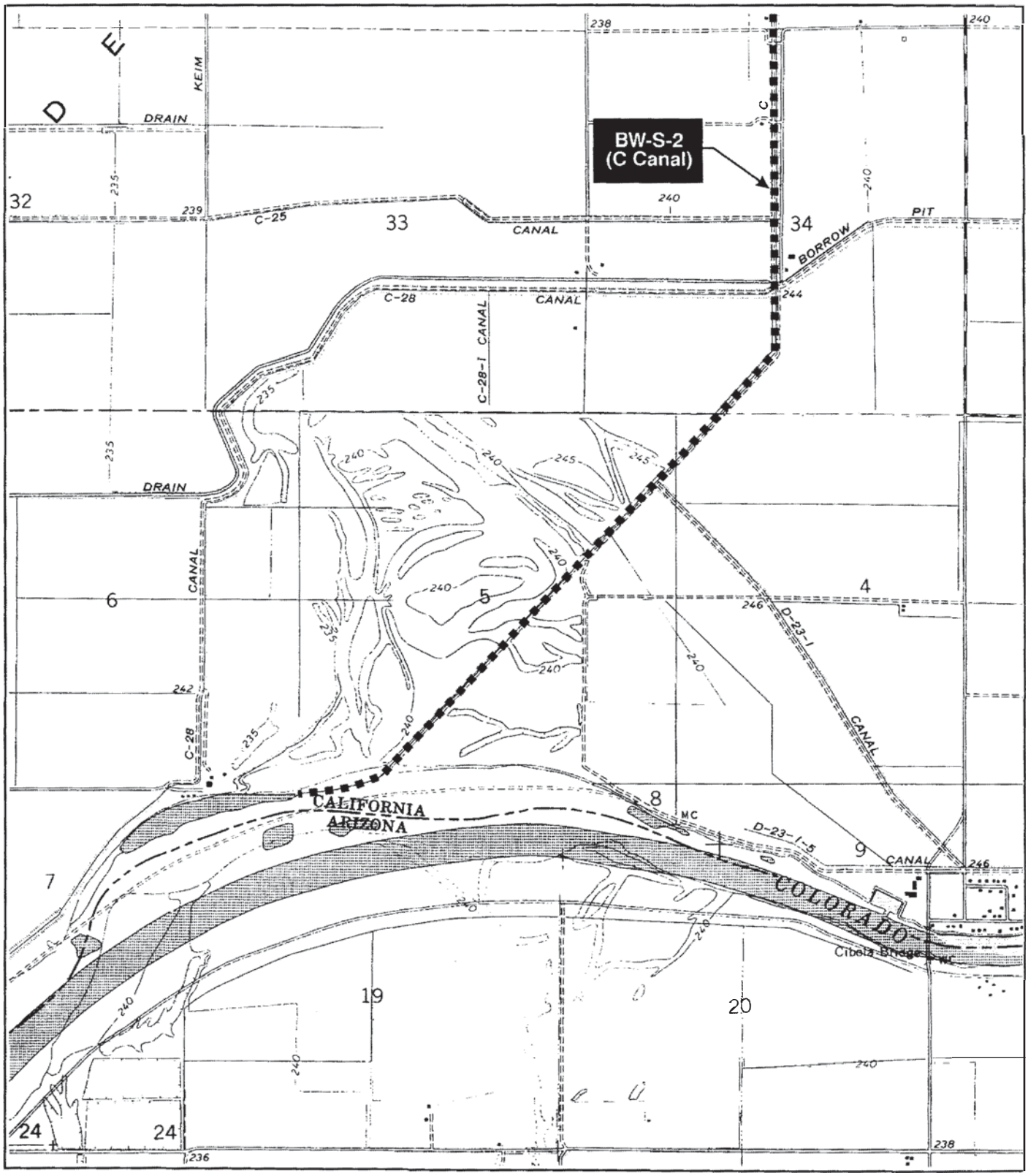
State of California - The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

Primary #: 36-11643
Trinomial:

LOCATION MAP

Resource Name or #: (Assigned by recorder): BW-S-2f (C-Canal)

Map Name: Palo Verde, CA **Scale:** 1:24,000 **Date of Map:** 1975



Required information is bold

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix F.1

Engineering Package Submittal

May 2022

Page intentionally blank

SO.CAL.WESTCOASTELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

Date: 07/15/2021	**To:** Southern California Edison
Project: ESF - BLYTH	**From:** Tony Holguin
	Title: SCWCE Engineering Package

Table of Contents:

Customer Project Information Sheet

Project Load Summary

Building 1 Load Summary

Building 2 Load Summary

Project Single Line Diagram

Project Phasing Plan

Thank You,

Tony Holguin

Tony@scwce.com

Southern California
West Coast Electric, Inc.
252 W. 4th Street #F
Beaumont, CA 92223
Phone: (951)849-4223 Ext. 7310
Fax: (951)922-2347
CA LIC. #462222

Signature: _____ **Date:** 07/15/2021

SOUTHERN CALIFORNIA WEST COAST ELECTRIC INCORPORATED OCTOBER 29, 1998 CALIFORNIA

SOUTHERN CALIFORNIA WEST COAST ELECTRIC, INC.
252 W. 4th St. #F
Beaumont, CA 92223

SO.CAL.WESTCOASTELECTRIC
POWERING AND CONNECTING YOUR WORLD

To:
SCE Engineering Department
Ref:
ESF-Blythe 11625 W Highway 60 Blythe, CA 92225

Engineering Package Summary

To whom it may concern

So. Cal. West Coast Electric, Inc has been contracted to prepare the required SCE engineering package for a new large scale multitenant cultivation facility located in the city of Blyth located on Hobson way and backs up to I-10 freeway. The facility will consist of (12) 45,000 SF buildings with a designated use for indoor cultivation and processing areas. Total project has 540,000 SF

The following documents are included in the engineering package

- Completed SCE customer project information sheet
- Site plan with proposed SCE equipment locations, customer panel locations and a possible SCE substation / equipment locations
- Building and project electrical load summary
- Phasing plan with construction starts and completion dates
- Preliminary panel drawings 1200a 12.47kv

Electrical Summary

- The project is being proposed using a total of (2) 12.47KV primary metered electrical services
- **Each 45,000 SF building** has a connected load of approx. 2.88 - 3.56MW with a load diversity of 75% anticipating a demand of **2.44 – 2.67 MW, 124A at 12.47KV** (SCE side distribution)
- **Entire Project** including (12) cultivation buildings will have a connected load of **38.5MW** with a load diversity of 75% anticipating a demand of **28.9MW, 1338A** at 12.47KV (SCE infrastructure)

Project schedule

Phase 1 –

Start 12-31-21 Completion 6-30-23

- Building 1- 2.44MW
- Building 2- 3.56MW
- Building 3- 2.44MW

Phase 2 –
Start 6-30-23 Completion 12-31-25

- Building 4- 2.44MW
- Building 5- 3.56MW
- Building 6- 2.44MW

Phase 3 –
Start 12-31-25 Completion 6-30-27

- Building 7- 2.44MW
- Building 8- 3.56MW
- Building 9- 2.44MW

Phase 4 –
Start 6-30-27 Completion 12-31-29

- Building 10- 2.44MW
- Building 11- 3.56MW
- Building 12- 2.44MW

If you require additional information of have any questions regarding the project please contact Andrew Birchard with So. Cal. West Coast Electric, Inc

Andrew Birchard
Email: Andy@scce.com
C: 951-206-2441
O: 951-849-4223
F: 951-922-2347

Regards,

Andrew Birchard
President / CEO

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

Title:

ESF - BLYTH

Engineering Package

Specification:

Customer Project Information Sheet

SOUTHERN CALIFORNIA EDISON®
An EDISON INTERNATIONAL® Company

Customer/Project Information Sheet

Date Received by SCE: 7/14/21

Individual or Business Name: (Customer / Developer – Tract DBA or LLC) ESF - BLYTHE		
Address:	Email Address:	
City:	State:	Zip Code:
Attn:	Phone No:	
Legal Contact: (Individual responsible for signing contracts, paying fees and receiving potential refunds)	Phone No:	
Address:	Email Address:	
City:	State:	Zip Code:
Primary Field / Site Superintendent / Job Contact: ANDREW BIRCHARD		
Relationship to Project: ELECTRICAL DESIGN	Phone No: 951-849-4223	
E-mail Address: ANDY@SCWCE.COM	FAX No: 951-922-2347	
Project Address: 11625 W HIGHWAY		
City: BLYTHE	State CA	Zip Code: 92225
TG Map # or GPS	Major Cross Street: I-10	

Detailed Project Information

Residential: ☐	**Commercial:** ☐	**Industrial:** ■	**Agricultural:** ■
Service Requested:	Overhead: ☐	Underground: ■	Indoor Cultivation ■
Tract:	Lot(s)		Mixed-Light Cultivation ☐

Is this project subject to Buy America Compliance? Yes ☐ No ■	Temporary Service Required: Yes ■ No ☐
Approximate start work date for SCE crews: 6/1/23	Your Construction Start Date: 12/31/21
Approximate date you would like the job completed and energized: 12/31/23	
Scope of Project: LARGE CULTIVATION FACILITY	
Solar or Generation Equipment to be installed (If yes, please attach additional descriptions/specifications): ☐ Yes ■ No	
Electric Vehicle: ☐ Charge Station ☐ Plug-In Electric Vehicle (PEV)	
Panel Size (amps): (2) 1200A	Service Voltage/Phase: 12.47KV

Total Tons of A/C: 7500	Total # of A/C Units: TBD	Largest A/C Unit (tons): 25
Total HP of Pumps: 600	Total # of Pump Units: TBD	Largest Pump (HP): 25

Installing Gas or Electric:	Heater: Electric	Water Heater: Electric	Range:

Square Footage of Buildings (if multiple buildings give all footages): 550,000 SF
Homes over 5000 sq ft larger lots require a Load Schedule. Please contact your electrician for assistance.

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

Title:

ESF - BLYTH

Engineering Package

Specification:

Project Load Summary

Project total load summary

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

QTY	DESCRIPTION	KVA	Amps @277/480v	Amps @12.47kv
	Buildings			
1	Cultivation Bldg #1	2873.92	3458.39	133.06
1	Cultivation Bldg #2	3557.98	4281.56	164.74
1	Cultivation Bldg #3	2873.92	3458.39	133.06
1	Cultivation Bldg #4	3557.98	4281.56	164.74
1	Cultivation Bldg #5	2873.92	3458.39	133.06
1	Cultivation Bldg #6	3557.98	4281.56	164.74
1	Cultivation Bldg #7	2873.92	3458.39	133.06
1	Cultivation Bldg #8	3557.98	4281.56	164.74
1	Cultivation Bldg #9	2873.92	3458.39	133.06
1	Cultivation Bldg #10	3557.98	4281.56	164.74
1	Cultivation Bldg #11	2873.92	3458.39	133.06
1	Cultivation Bldg #12	3557.98	4281.56	164.74
		KVA	**Amps @480v**	**Amps @12.47kv**
	totals @100% load	38591.4	46439.7	1,786.8
	75% load diversity	**28943.55**	**34829.8**	**1340.1**

Project total load summary

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

Title:

ESF - BLYTH

Engineering Package

Specification:

Building 1 Load Summary

Electrical service load summary
6/22/21

ESF - Blyth
11625 W Highway 60, Blyth California
Building #1 typical

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

QTY	DESCRIPTION	VA EA	TOTAL VA	CURRENT @277/480 (AMPS)
	(Cultivation lighting)			
912	1000w HID / HPS cultivation fixtures	1180	1076160	1295.02
1	25% LCL		269040	323.75
	Total cultivation lighting		**1345200**	**1618.77**
	(Cultivation mechanical)			
24	25 ton Trane RTU HVAC units	45,705	1096920	1320.00
2	5 ton ry room hvac	9,600	19200	23.10
26	Ande 710 pints/day	4820	125320	150.81
96	barrel fans VKM36-B-0	805	77280	93.00
16	1708 CFM1260 Exaust / Re-circ fans	636	10176	12.25
1	25% LCL			0.00
	Total cultivation HVAC		**1328896**	**1599.15**
	(misc /irrigation / dry room equipment)			
4	LC	120	480	0.58
4	ph / tds meters	120	480	0.58
4	co2 monitor	120	480	0.58
2	ultrasonic humidifer	1800	3600	4.33
8	updraft fan	840	6720	8.09
4	DAB pumps	3328	13312	16.02
1	RO system (no current specifications)	19994	19994	24.06
	Total cultivation Equipment		**45066**	**54.23**
	Geneal Power			
46,132	General power & Lighting	3	138396	384.43
45	Tons HVAC (13,540 SF)	1365	61425	170.63
	Total general area		**199821**	**555.06**
			CONNECTED VA	CONNECTED A
		TOTALS	**2873917**	**3458.38**
		PANEL SIZE		**5000A**

Electrical service load summary
6/22/21

ESF - Blyth
11625 W Highway 60, Blyth California
Building #1 typical

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

Title:

ESF - BLYTH

Engineering Package

Specification:

Building 2 Load Summary

Electrical service load summary
6/22/21

ESF - Blyth
11625 W Highway 60, Blyth California
Building #2 typical

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

QTY	DESCRIPTION	VA EA	TOTAL VA	CURRENT @277/480 (AMPS)
	(Cultivation lighting)			
1140	1000w HID / HPS cultivation fixtures	1180	1345200	1618.77
10	clone racks	1520	15200	18.29
12	Pro 1700e	645	7740	9.31
1	25% LCL		336300	404.69
	Total cultivation lighting		**1704440**	**2051.07**
	(Cultivation mechanical)			
24	25 ton Trane RTU HVAC units (flower)	45,705	1096920	1320.00
6	25 ton Trane RTU HVAC units (veg)	45,705	274230	330.00
6	4 ton mom/clone room HVAC (mom / clone)	7,200	43200	51.99
2	5 ton dry room HVAC	9,600	19200	23.10
30	Ande 710 pints/day	4820	144600	174.01
104	barrel fans VKM36-B-0	805	83720	100.75
16	1708 CFM1260 Exaust / Re-circ fans	636	10176	12.25
1	25% LCL			0.00
	Total cultivation HVAC		**1672046**	**2012.09**
	(misc /irrigation / dry room equipment)			
6	LC	120	720	0.87
5	ph / tds meters	120	600	0.72
6	co2 monitor	120	720	0.87
4	ultrasonic humidifer	1800	7200	8.66
8	updraft fan	840	6720	8.09
4	DAB pumps	3328	13312	16.02
1	ez-clone	2880	2880	3.47
1	RO system (no current specifications)	19994	19994	24.06
	Total cultivation Equipment		**52146**	**62.75**
	Geneal Power			
46,848	General power & Lighting	3	140544	390.40
30	Tons HVAC (9,327 SF)	1365	40950	113.75
	Total general area		**181494**	**504.15**
			CONNECTED VA	CONNECTED A
		TOTALS	**3557980**	**4281.56**
		PANEL SIZE		**6000A**

Electrical service load summary
6/22/21

ESF - Blyth
11625 W Highway 60, Blyth California
Building #2 typical

Prepared by: So Cal West Coast Electric Inc.
252 w. 4th st. suite F
Beaumont CA, 92223

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

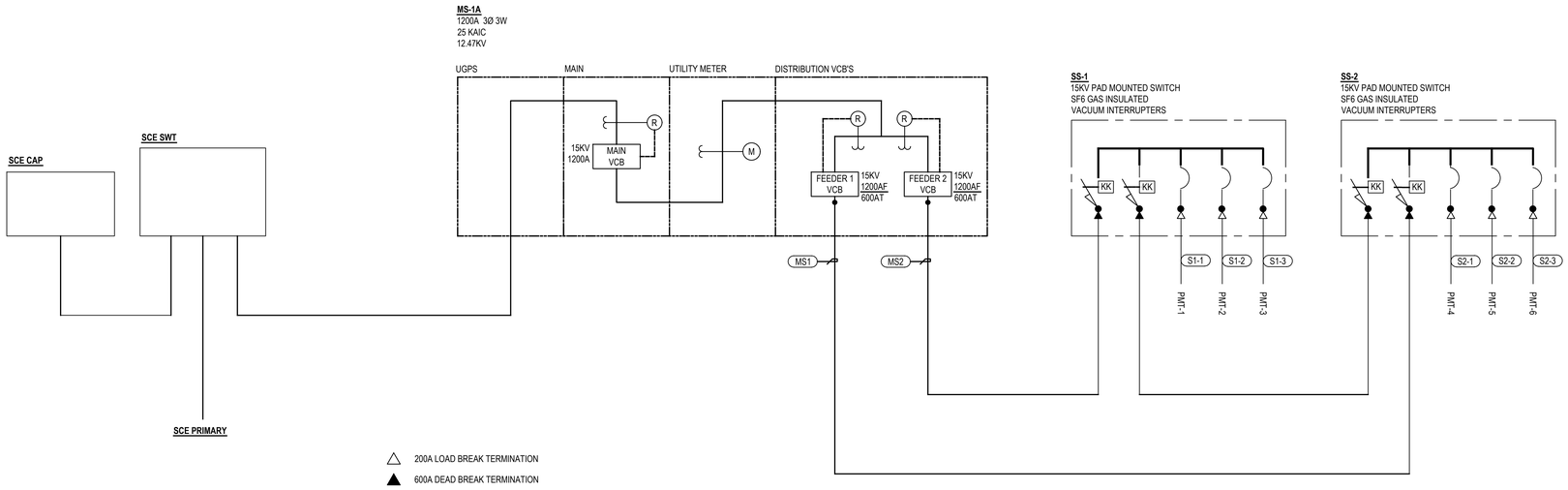
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ESF - BLYTH

Engineering Package

Specification:

Single Line Diagram

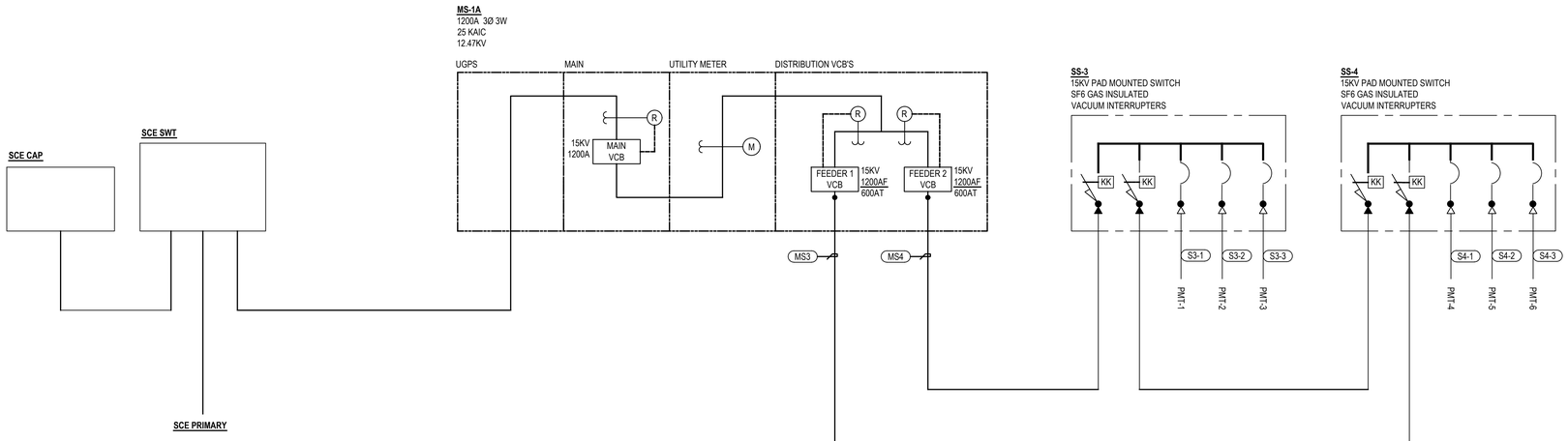


△ 200A LOAD BREAK TERMINATION

▲ 600A DEAD BREAK TERMINATION

FEEDER SCHEDULE	
MS1	5" PVC W/(3) 750 KCMIL MV-105 EPR & (1)#1 THHW 15KV 133%
MS2	5" PVC W/(3) 750 KCMIL MV-105 EPR & (1)#1 THHW 15KV 133%
S1-1	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S1-2	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S1-3	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S2-1	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S2-2	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S2-3	5" PVC W/ 3/O MV-105 EPR 15KV 133%

PHASE 1 & 2 MV SINGLE LINE



△ 200A LOAD BREAK TERMINATION

▲ 600A DEAD BREAK TERMINATION

FEEDER SCHEDULE	
MS3	5" PVC W/(3) 750 KCMIL MV-105 EPR & (1)#1 THHW 15KV 133%
MS4	5" PVC W/(3) 750 KCMIL MV-105 EPR & (1)#1 THHW 15KV 133%
S3-1	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S3-2	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S3-3	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S4-1	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S4-2	5" PVC W/ 3/O MV-105 EPR 15KV 133%
S4-3	5" PVC W/ 3/O MV-105 EPR 15KV 133%

PHASE 1 & 2 MV SINGLE LINE

SOUTHERN CALIFORNIA
WEST COAST ELECTRIC
252 W. 4TH STREET #F
BEAUMONT, CA 92223
PHONE:(951)849-4223
FAX:(951)922-2347

CONTRACTOR

SOUTHERN CALIFORNIA WEST COAST ELECTRIC INCORPORATED OCTOBER 29, 1965 CALIFORNIA

CA LIC. #462222

DESIGNER

PROJECT

ESF - BLYTHE
11625 W HIGHWAY 60
BLYTHE, CA 92225

ENGINEER NOTES

ENGINEER STAMP

REVISIONS

DATE:	NOTES:

PROJECT TITLE:
ELECTRICAL:
SLD

SHEET:
E.0.0.02

SO.CAL. WESTCOAST ELECTRIC
POWERING AND CONNECTING YOUR WORLD

SUBMITTALS

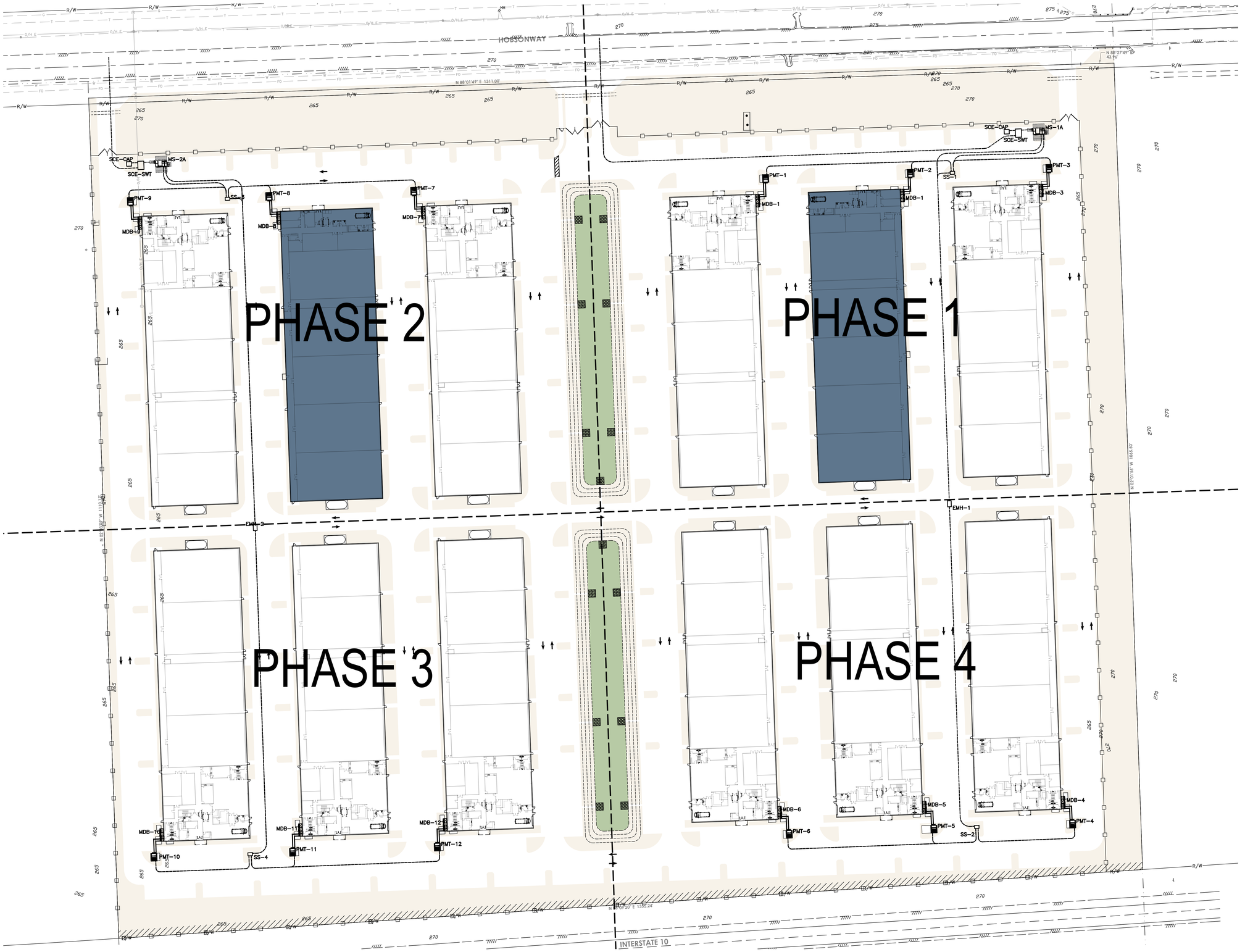
Title:

ESF - BLYTH

Engineering Package

Specification:

Project Phasing Plan



ELECTRICAL SITE PLAN

SCALE: 1" = 50'

NORTH

PHASING PLAN SCHEDULE

PHASE 1 START 12-31-21 COMPLETION 6-30-23

SITE INFRASTRUCTURE
BUILDING 1
BUILDING 2
BUILDING 3

PHASE 2 START 6-30-23 COMPLETION 12-31-25

SITE INFRASTRUCTURE
BUILDING 1
BUILDING 2
BUILDING 3

PHASE 3 START 12-31-25 COMPLETION 6-30-27

SITE INFRASTRUCTURE
BUILDING 1
BUILDING 2
BUILDING 3

PHASE 4 START 6-30-27 COMPLETION 12-31-29

SITE INFRASTRUCTURE
BUILDING 1
BUILDING 2
BUILDING 3

SOUTHERN CALIFORNIA WEST COAST ELECTRIC
252 W. 4TH STREET #F
BEAUMONT, CA 92223
PHONE:(951)849-4223
FAX:(951)922-2347

CONTRACTOR

SOUTHERN CALIFORNIA WEST COAST ELECTRIC INCORPORATED OCTOBER 29, 1985

CA LIC. #462222

DESIGNER

PROJECT

ESF - BLYTHE
11625 W HIGHWAY 60
BLYTH,CA 92225

ENGINEER NOTES

ENGINEER STAMP

REVISIONS

DATE:	NOTES:

PROJECT TITLE:

ELECTRICAL:

ELECTRIC PHASE PLAN

SHEET:

E.0.0.01

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix F.2

Southern California Edison

Will Serve Letter

May 2022

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SOUTHERN CALIFORNIA EDISON
An *EDISON INTERNATIONAL* Company

5/3/2022

EDELWEISS SUSTAINABLE FARM, LLC

APN 836-100-337, BLYTHE CA 92225

Your project is located in Southern California Edison (SCE) service territory. SCE will serve the above subject project's electrical requirements per the California Public Utilities Commission and Federal Energy Regulatory Commission tariffs.

SCE may need to conduct utility studies, where applicable, to assess whether additions or modifications to the existing electric infrastructure are required to serve this project. Where applicable, SCE has attached Appendix (B) which not only describes the study, and permitting, but includes a Project Information Sheet that will need to be completed by you and submitted to SCE if your project is at a point where SCE has to determine the required electrical utility work. This Will-Serve letter does not imply that either: (i) these studies have been completed, or (ii) that any required California Environmental Quality Act (CEQA) analysis of project-related electric utility impacts has been conducted.

I am the SCE Design Representative currently assigned to this project. SCE or Applicant will design and construct all required electrical infrastructure to serve this project provided you enter into the applicable contractual agreements with SCE identify scope of electrical utility work required, and supply the following information:

- Site plans as required
- Required contracts and agreements (fully executed)
- Applicable fees
- Local permits
- Required easement documents

Your project will be scheduled for construction once SCE has all the necessary information for your project and you have submitted or agreed to the applicable requirements as stated above, and paid any necessary fees.

If your project will not require SCE services, please notify us so that we can update our records.

SCE appreciates your business. If you have any questions, please feel free to call me at 760-310-5428

Sincerely,

SCE Design Representative

Enclosure: Appendix B, where applicable

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix G

Geotechnical and Infiltration Report

May 2022

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GEOTECHNICAL INVESTIGATION

PROPOSED CULTIVATION FACILITY

APN 836-100-007

11625 WEST HOBSONWAY

BLYTHE, CALIFORNIA

-Prepared By-

Sladden Engineering

45090 Golf Center Parkway, Suite F
Indio, California 92201
(760) 863-0713

Sladden Engineering

45090 Golf Center Parkway, Suite F, Indio, California 92201 (760) 863-0713 Fax (760) 863-0847
6782 Stanton Avenue, Suite C, Buena Park, CA 90621 (714) 523-0952 Fax (714) 523-1369
450 Egan Avenue, Beaumont, CA 92223 (951) 845-7743 Fax (951) 845-8863
www.SladdenEngineering.com

June 22, 2021

Project No. 544-21066
21-06-373

Edelweiss Sustainable Farm, LLC
c/o Mr. Jim Shaffer
56540 Chipmunk Trail
Yucca Valley, California 92284

Subject: Geotechnical Investigation

Project: Proposed Cultivation Facility
APN 836-100-007
11625 West Hobsonway
Blythe, California

Sladden Engineering is pleased to present the results of our geotechnical investigation performed for the proposed cultivation facility to be constructed on the subject property located at 11625 West Hobsonway in the City of Blythe, California. Our services were completed in accordance with our proposal for geotechnical engineering services dated January 19, 2021 and your authorization to proceed with the work. The purpose of our investigation was to explore the subsurface conditions at the site to provide recommendations for foundation design and site preparation. Evaluation of environmental issues and hazardous wastes was not included within the scope of services provided.

The opinions, recommendations and design criteria presented in this report are based on our field exploration program, laboratory testing and engineering analyses. Based on the results of our investigation, it is our professional opinion that the proposed project should be feasible from a geotechnical perspective provided that the recommendations presented in this report are implemented into design and carried out through construction.

We appreciate the opportunity to provide service to you on this project. If you have any questions regarding this report, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

James W. Minor III
Senior Geologist

PROFESSIONAL GEOLOGIST
JAMES W. MINOR III
No. 9735
STATE OF CALIFORNIA

Brett L. Anderson
Principal Engineer

REGISTERED PROFESSIONAL ENGINEER
BRETT L. ANDERSON
No. C45389
CIVIL ENGINEERING
STATE OF CALIFORNIA

SER/jm

Copies: 4/Addressee

GEOTECHNICAL INVESTIGATION
PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY
BLYTHE, CALIFORNIA

June 22, 2021

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APPENDIX C- Seismic Design Map and Report

INTRODUCTION

This report presents the results of the geotechnical investigation performed by Sladden Engineering (Sladden) for the proposed cultivation facility to be constructed on the subject property located at 11625 West Hobsonway in the City of Blythe, California. The site is located at approximately 33.6085 degrees north latitude and 114.6164 degrees west longitude. The approximate location of the site is indicated on the Site Location Map (Figure 1).

Our investigation was conducted in order to evaluate the engineering properties of the subsurface materials, to evaluate their *in-situ* characteristics, and to provide engineering recommendations and design criteria for site preparation, foundation design and the design of various site improvements. This study also includes a review of published and unpublished geotechnical and geological literature regarding seismicity at and near the subject site.

PROJECT DESCRIPTION

Based on our preliminary discussions, it is our understanding that the proposed project will consist of constructing a new cultivation facility on the subject site. Sladden anticipates that the proposed project will also include paved parking areas, site walls, concrete flatwork, landscaping and various associated site improvements. For our analyses we expect that the proposed cultivation buildings will consist of relatively lightweight wood-frame or steel-frame structures supported upon conventional shallow spread footings and concrete slabs on-grade.

Sladden anticipates that grading will be limited to minor cuts and fills in order to accomplish the desired pad elevations and to provide adequate gradients for site drainage. This does not include the removal and re-compaction of the primary foundation bearing soil within the building areas. Upon completion of precise grading plans, Sladden should be retained in order to ensure that the recommendations presented within in this report are incorporated into the design of the proposed project.

Structural foundation loads were not available at the time of this report. Based on our experience with relatively lightweight wood-frame or steel-frame structures, we expect that isolated column loads will be less than 50 kips and continuous wall loads will be less than 5.0 kips per linear foot. If these assumed loads vary significantly from the actual loads, we should be consulted to verify the applicability of the recommendations provided.

SCOPE OF SERVICES

The purpose of our investigation was to determine specific engineering characteristics of the surface and near surface soil in order to develop foundation design criteria and recommendations for site preparation. Exploration of the site was achieved by drilling six (6) boreholes to depths between approximately 3 and 20 feet below the existing ground surface (bgs). Specifically, our site characterization consisted of the following tasks:

- Site reconnaissance to assess the existing surface conditions on and adjacent to the site.
- Advancing six (6) boreholes to depths between approximately 3 to 20 feet bgs in order to characterize the subsurface soil conditions. Representative samples of the site soil were classified in the field and retained for laboratory testing and engineering analyses.
- Performing laboratory testing on selected samples to evaluate their engineering characteristics.
- Reviewing geologic literature and discussing geologic hazards.
- Performing engineering analyses to develop recommendations for foundation design and site preparation.
- The preparation of this report summarizing our work at the site.

SITE CONDITIONS

The site is located at 1625 West Hobsonway in the City of Blythe, California. The site is formally identified by the County of Riverside as APN 836-100-007 and occupies approximately 33.04 acres of undeveloped land At the time of our investigation, the subject property appeared to be disked and utilized as agricultural land with crops visible. The lot is bounded by West Hobsonway to the north, undeveloped property to the east, agricultural property to the west and Christopher Columbus Transcontinental Highway (Interstate 10) to the immediate south.

Based on our review of the Blythe 7.5-Minute Quadrangle Map (USGS, 2012), the site is situated at an approximate elevation of 260 feet above mean sea level (MSL).

No ponding water or surface seeps were observed at or near the site during our investigation conducted on May 20, 2021 . Site drainage is controlled by sheet flow and surface infiltration. Regional drainage is provided by the Colorado River located to the east of the subject property.

GEOLOGIC SETTING

The project site is located within the Palo Verde Valley area of the Mojave Desert Physiographic Province. The Mojave Desert Province is characterized as a broad interior region of isolated mountain ranges separated by desert plains. The Mojave Desert Province is a wedge-shaped province that is generally bounded by the Garlock Fault to the north and the San Andreas Fault system to the south.

The Palo Verde Valley area of the Mojave Desert Province generally consists of a northeast-southwest trending valley comprised of Quaternary-age sediments generally consisting of alluvium (Qa) as mapped by Jennings (1967). These sediments blanket the entire site and surrounding area and are generally found throughout the low-lying portions of the Palo Verde Valley. The mountainous areas bounding the Palo Verde Valley are comprised of various lithologic units including: Tertiary age aphanites, Cretaceous-age granitoids, Paleozoic-age metamorphites and numerous other formal units.

The site has been mapped by CGS (2010) to be immediately underlain by Quaternary age alluvial-valley deposits (Qa). The regional geologic setting for the site vicinity is presented on the Regional Geologic Map (Figure 2).

SUBSURFACE CONDITIONS

The subsurface conditions at the site were investigated by drilling six (6) exploratory boreholes to depths between approximately 3 and 21 feet bgs. The approximate locations of the boreholes are illustrated on the Exploration Location Photograph (Figure 3). The boreholes were advanced using a truck-mounted Mobile B-61 drill-rig equipped with 8-inch outside diameter (O.D.) hollow stem augers and hand equipment. A geologist employed by Sladden was on-site to log the materials encountered and retrieve samples for laboratory testing and engineering analyses.

During our field investigation, fill/disturbed soil was encountered to a depth of approximately two (2) feet bgs within our bores. Underlying the artificial fill/disturbed soil and extending to the maximum depths explored, native alluvium consisting primarily of silty clay (CL), clayey sand (SC) and sand (SP) was encountered. Granular horizons appeared moist to wet, moderately dense and yellowish to reddish brown in *in-situ* color. Generally, cohesive layers were moist to wet, medium stiff and exhibited characteristics indicative of low to medium plasticity soil.

The final logs represent our interpretation of the contents of the field logs and the results of the laboratory observations and testing of the field samples. The final logs are included in Appendix A of this report. The stratification lines represent the approximate boundaries between soil types although the transitions may be gradual or variable across the site.

Groundwater was encountered at a depth of approximately 7.5 feet bgs during our field investigation. Based upon the depth to groundwater in the project vicinity (CDWR, 2021), it is our opinion that groundwater may be encountered during site grading and within in deep excavations and utility trench excavations. The following table provides a summary of the recorded groundwater depths in the project vicinity.

TABLE 1
GROUNDWATER DEPTHS

STATE WELL	LAT/LONG	DISTANCE (KM)	DATE	DEPTH (FT)
07S23E06A001S	33.6028/ -114.6066	0.90	07/01/1971	8.0
06S23E31B001S	33.6170/ -114.6127	0.95	10/11/1972	6.0
06S23E31A001S	33.6173/ -114.6069	1.10	07/01/1971	8.0
06S23E32L003S	33.6095/ -114.5999	1.25	08/01/1972	11.0
06S22E36R001S	33.6028/ -114.6247	1.25	07/01/1971	6.0
06S23E30N001S	33.6175/ -114.6235	1.35	07/01/1971	7.0

SEISMICITY AND FAULTING

The southwestern United States is a tectonically active and structurally complex region, dominated by northwest trending dextral faults. The faults of the region are often part of complex fault systems, composed of numerous subparallel faults which splay or step from main fault traces. Strong seismic shaking could be produced by any of these faults during the design life of the proposed project.

We consider the most significant geologic hazard to the project to be the potential for moderate to strong seismic shaking that is likely to occur during the design life of the project. The proposed project is located in the highly seismic Southern California region within the influence of several fault systems that are considered to be active or potentially active. An active fault is defined by the State of California as a "sufficiently active and well defined fault" that has exhibited surface displacement within the Holocene epoch (about the last 11,000 years). A potentially active fault is defined by the State as a fault with a history of movement within Pleistocene time (between 11,000 and 1.6 million years ago).

Table 2 lists the closest known potentially active faults that was generated in part using the EQFAULT computer program (Blake, 2000), as modified using the fault parameters from The Revised 2002 California Probabilistic Seismic Hazard Maps (Cao et al, 2003), Southern Earthquake Data Center (SCEDC, 2021) and the Quaternary Fault and Fold Database of the United States (USGS, 2021a). This table does not identify the probability of reactivation or the on-site effects from earthquakes occurring on any of the other faults in the region.

TABLE 2
CLOSEST KNOWN ACTIVE FAULTS

Fault Name	Distance (Km)	Maximum Event
*Brawley Seismic Zone	104.9	6.4
Elmore Ranch	105.6	6.6
San Andreas - Southern	106.2	7.2
San Andreas - Coachella	106.2	7.2

*Removed as specific fault source , but characterized its hazard using gridded seismicity (Cao et al, 2003).

2019 CBC SEISMIC DESIGN PARAMETERS

Sladden has reviewed the 2019 California Building Code (CBC) and summarized the current seismic design parameters for the proposed structures. The seismic design category for a structure may be determined in accordance with the 2019 CBC or ASCE7-16. According to the 2019 CBC, Site Class D may be used to estimate design seismic loading for the proposed structure. Site specific seismic response analyses are not required because S_1 is less than 0.2 (ASCE7-16). The 2019 CBC Seismic Design Parameters are summarized below. The project Design Report is included within Appendix C (SEAC, 2021). The project Structural Engineer should verify that all design parameters provided are applicable for the subject project.

TABLE 3
GROUND MOTION PARAMETERS

Latitude / Longitude	3.6087/-114.6132
Risk Category	II
Site Class	D
Code Reference Documents	ASCE 7-16; Chapter 11 & 21

Description	Type	Map Based
MCE_R Ground Motion (0.2 second period)	S_S	0.296
MCE_R Ground Motion (1.0 second period)	S_1	0.156
Site-Modified Spectral Acceleration Value	S_{MS}	0.462
Site-Modified Spectral Acceleration Value	S_{M1}	0.357
Numeric Seismic Design Value at 0.2 second SA	S_{DS}	0.308
Numeric Seismic Design Value at 1.0 second SA	S_{D1}	0.238
Site Amplification Factor at 0.2 second	F_a	1.563
Site Amplification Factor at 1.0 second	F_v	2.288
Site Peak Ground Acceleration	PGA_M	0.203

GEOLOGIC HAZARDS

The subject site is located in an active seismic zone and will likely experience strong seismic shaking during the design life of the proposed project. In general, the intensity of ground shaking will depend on several factors including: the distance to the earthquake focus, the earthquake magnitude, the response characteristics of the underlying materials, and the quality and type of construction. Geologic hazards and their relationship to the site are discussed below.

I. Surface Rupture. Surface rupture is expected to occur along preexisting, known active fault traces. However, surface rupture could potentially splay or step from known active faults or rupture along unidentified traces. Based on our review of CGS (2010), CGS (2021) and RCPR (2021), known active faults are not mapped on the site. In addition, no signs of active surface faulting were observed during our review of non-stereo digitized photographs of the site and site vicinity (Google, 2021). Finally, no signs of active surface fault rupture or secondary seismic effects (lateral spreading, lurching etc.) were identified on-site during our field investigation. Therefore, it is our opinion that risks associated with primary surface ground rupture should be considered "low".

II. Liquefaction. Liquefaction is the process in which loose, saturated granular soil loses strength as a result of cyclic loading. The strength loss is a result of a decrease in granular sand volume and a positive increase in pore pressures. Generally, liquefaction can occur if all of the following conditions apply; liquefaction-susceptible soil, groundwater within a depth of 50 feet or less, and strong seismic shaking.

Based on the anticipated low ground accelerations (PGAm = 0.203g) and the distance from causative faults, hazards associated with liquefaction susceptibility should be considered "low".

III. Tsunamis and Seiches. The site is situated at an inland location and is not susceptible to tsunamis. Based on the anticipated low ground accelerations, risks associated with seiches are considered "low".

IV. Slope Failure, Land Sliding, Rock Falls. No signs of slope instability in the form of landslides, rock falls, earthflows or slumps were observed at or near the subject site. Based on our field observations of the site vicinity, risks associated with slope instability should be considered "negligible".

V. Expansive Soil. Generally, the surface soil consists of clayey sand (SC). Based on the results of our laboratory testing (EI=4), the materials underlying the site are considered to have a "very low" expansion potential. The recommended remedial grading will result in substantial mixing and blending of the surface soil with the underlying alluvium. The expansion index of the surface soil should be reevaluated after grading.

VI. Static Settlement. Static settlement resulting from the anticipated foundation loads should be tolerable provided that the recommendations included in this report are considered in foundation design and construction. The estimated ultimate static settlement is estimated to be less than one inch when using the recommended allowable bearing pressures. As a practical matter, differential static settlement between footings can be assumed as one-half of the total settlement.

VII. Subsidence. Land subsidence can occur in valleys where aquifer systems have been subjected to extensive groundwater pumping, such that groundwater pumping exceeds groundwater recharge. Generally, pore water reduction can result in a rearrangement of skeletal grains and could result in elastic (recoverable) or inelastic (unrecoverable) deformation of an aquifer system.

Locally, no fissures or other surficial evidence of subsidence were observed at or near the subject site. Accordingly, risks associated with subsidence are considered "low".

VIII. Debris Flows. Debris flows are viscous flows consisting of poorly sorted mixtures of sediment and water and are generally initiated on slopes steeper than approximately six horizontal to one vertical (6H:1V) (Boggs, 2001). Because the building area is located in an area of level topography, risks associated with debris flows should be considered remote.

IX. Flooding and Erosion. Waters of the Colorado River are largely controlled by upstream dams and flow regulation. Evidence of erosion was not observed within the project site. However, risks associated with flooding and erosion should be evaluated and mitigated by the project design Civil Engineer.

CONCLUSIONS

Based on the results of our investigation, it is our professional opinion that the project should be feasible from a geotechnical perspective provided that the recommendations included in this report are incorporated into design and carried out through construction. The main geotechnical concerns in the construction of the proposed project are the loose conditions of the near surface native soil and the presence of shallow groundwater.

The near surface soil was determined to be loose and potentially compressible and is not considered suitable for foundation support in the existing condition. In order to provide uniform foundation support, remedial grading including over-excavation and re-compaction is recommended for the proposed building areas. We recommend that remedial grading within the proposed building areas include over-excavation and re-compaction of the primary foundation bearing soil. Specific recommendations for site preparation are presented in the Earthwork and Grading section of this report.

Caving did occur to varying degrees within each of our exploratory bores and the surface soil may be susceptible to caving within deeper excavations. All excavations should be constructed in accordance with the normal CalOSHA excavation criteria. Based on our observations of the materials encountered, we anticipate that the near surface soil will conform to that described by CalOSHA as Type C. Soil conditions should be verified in the field by a "Competent person" employed by the Contractor.

The following recommendations present more detailed design criteria that have been developed based on our field exploration and laboratory testing.

EARTHWORK AND GRADING

Earthwork including excavation, backfill and preparation of the subgrade soil should be performed in accordance with the geotechnical recommendations presented in this report and portions of the local regulatory requirements, as applicable. All earthwork should be performed under the observation and testing of a qualified soil engineer. The following geotechnical engineering recommendations for the proposed project are based on observations from the field investigation program, laboratory testing and geotechnical engineering analysis.

a. Stripping. Areas to be graded should be cleared of any existing structures, surface and subsurface improvements, vegetation, the associated root systems, concrete and debris. All areas scheduled to receive fill should be cleared of any oversized or unsuitable material that should be removed off site. Voids left by obstructions should be properly backfilled in accordance with the compaction recommendations of this report.

b. Preparation of the Building Areas. In order to achieve firm and uniform bearing conditions, we recommend over-excavation and re-compaction throughout the building areas. All artificial fill soil and low density near surface native soil should be removed to a depth of at approximately 3 feet below existing grade or 2 feet below the bottom of the footings, whichever is deeper. Remedial grading should extend laterally, a minimum of five feet beyond the building perimeter. The soil exposed by over-excavation should be scarified, moisture conditioned to near optimum moisture content and compacted to at least 90 percent relative compaction.

c. Compaction. The soil removed by over-excavation and any other material to be used as engineered fill soil should be free of organic material, debris, and any deleterious substances and should not contain irreducible matter greater than 8 inches in maximum dimension. The soil removed during over-excavation and all fill materials should be placed in thin lifts not exceeding six inches in a loose condition at over optimum moisture content. If import fill is required, the material should be of non-expansive nature and should meet the following criteria:

Plastic Index	Less than 12
Liquid Limit	Less than 35
Percent Soil Passing #200 Sieve	Between 15% and 35%
Maximum Aggregate Size	3 inches

The subgrade soil and all fill material should be compacted with acceptable compaction equipment to at least 90 percent relative compaction. The bottom of the excavation should be observed by a representative of Sladden Engineering prior to fill placement. Compaction testing should be performed on all lifts in order to verify proper placement of the fill materials. Table 2 provides a summary of the excavation and compaction recommendations.

Table 2
SUMMARY OF RECOMMENDATIONS

*Remedial Grading	Removal and re-compaction of all artificial fill soil and loose native soil to a depth of at least 3 feet below existing grade or 2 feet below the bottom of footings, whichever is deeper. Removals should extend laterally a minimum of 5 feet beyond the footing limits.
Native / Import Engineered Fill	Place in thin lifts not exceeding 6 inches in a loose condition at over optimum moisture content and compact to a minimum of 90 percent relative compaction.

*Actual depth may vary and should be determined by a representative of Sladden Engineering in the field during construction.

d. Shrinkage and Subsidence: Volumetric shrinkage of the material that is excavated and replaced as controlled compacted fill soil should be anticipated. We estimate that this shrinkage should be between 10 and 20 percent. Subsidence of the surfaces that are scarified and compacted should be between 1 and 3 tenths of a foot. This will vary depending upon the type of equipment used, the moisture content of the soil at the time of grading and the actual degree of compaction attained.

e. Stabilization: Deeper excavations will likely require stabilization due to shallow groundwater conditions. A gravel/crushed rock layer approximately 2 feet thick should be placed within the excavation bottoms to provide a stable working platform and to promote drainage and removal of groundwater that seeps into the excavation. The gravel/crushed rock should be surrounded by an appropriate filter fabric to prevent the migration of fines during dewatering operations. Geo-grid reinforcement should be placed within the gravel/crushed rock.

CONVENTIONAL SHALLOW SPREAD FOOTINGS

Conventional shallow spread footings are expected to provide adequate support for the proposed cannabis warehouse buildings. Load bearing walls may be supported on continuous footings and interior columns may be supported on isolated pad footings. All footings should be founded upon properly compacted engineered fill soil and should have a minimum embedment depth of 18 inches measured from the lowest adjacent finished grade. Continuous and isolated pad footings should have minimum widths of 12 inches and 24 inches, respectively. Continuous and isolated pad footings may be designed using an allowable (net) bearing pressures of 1800 and 2000 pounds per square foot (psf), respectively. Allowable increases of 250 psf for each additional 1 foot in width and 250 psf for each additional 6 inches in depth may be utilized, if desired. The maximum allowable bearing pressure should be 3,000 psf. The maximum bearing pressure applies to combined dead and sustained live loads. The allowable bearing pressure may be increased by one-third when considering transient live loads, including seismic and wind forces.

Based on the allowable bearing pressures recommended above, the total static settlement of the shallow footings is anticipated to be less than one-inch, provided that foundation preparation conforms to the recommendations provided in this report. Differential static settlement is anticipated to be approximately one-half the total static settlement for similarly loaded footings spaced up to approximately 40 feet apart.

Lateral load resistance for the spread footings will be developed by passive soil pressure against the sides of the footings below grade and by friction acting at the base of the concrete footings bearing on compacted fill. An allowable passive pressure of 250 psf per foot of depth may be used for design purposes. An allowable coefficient of friction 0.40 may be used for dead and sustained live loads to compute the frictional resistance of the footing placed directly on compacted fill. Under seismic and wind loading conditions, the passive pressure and frictional resistance may be increased by one-third.

All footing excavations should be observed by a representative of the project geotechnical consultant to verify adequate embedment depths prior to placement of forms, steel reinforcement or concrete. The excavations should be trimmed neat, level and square. All loose, disturbed, sloughed or moisture-softened soils and/or any construction debris should be removed prior to concrete placement. Excavated soil generated from footing and/or utility trenches should not be stockpiled within the building envelope or in areas of exterior concrete flatwork. All footings should be reinforced in accordance with the project Structural Engineer's recommendations.

SLABS-ON-GRADE

In order to reduce the risk of cracking and settlement, concrete slabs-on-grade must be placed on properly compacted engineered fill as outlined in the previous sections of this report. The slab subgrades should remain at over optimum moisture content and should not be permitted to dry prior to concrete placement. All slab subgrades should be firm and unyielding. Disturbed soil should be removed and then replaced and compacted to a minimum of 90 percent relative compaction.

Floor slab thickness and reinforcement should be determined by the Structural Engineer. Based upon the anticipated use, we recommend a minimum floor slab thickness of 5.0 inches and minimum slab reinforcement of #4 bars at 24 inches on center. All slab reinforcement should be properly supported to ensure that reinforcement is placed at slab mid-height.

Slabs with moisture sensitive surfaces should be underlain with a moisture vapor retarder consisting of a polyvinyl chloride membrane such as 10-mil visqueen, or equivalent. All laps within the membrane should be sealed and at least 2 inches of clean sand should be placed over the membrane to promote uniform curing of the concrete. To reduce the potential for punctures, the membrane should be placed on a pad surface that has been graded smooth without any sharp protrusions. If a smooth surface cannot be achieved by grading, consideration should be given to placing a 1-inch thick leveling course of sand across the pad surface prior to placement of the membrane.

RETAINING WALLS

Minor retaining walls may be required to accomplish the construction of the project. Cantilever retaining walls may be designed using "active" pressures. Active pressures may be estimated using an equivalent fluid weight of 35 pcf for native backfill soil with level drained backfill conditions. "At Rest" pressures should be utilized for restrained walls. At rest pressures may be estimated using an equivalent fluid weight of 55 pcf for native backfill soil with level drained backfill conditions

CORROSION SERIES

The soluble sulfate concentrations of the surface soil was determined to be 180 parts per million (ppm). The soil is considered to have a "very low" corrosion potential with respect to concrete in accordance with ACI 318. The use of Type V cement and special sulfate resistant concrete mixes will be necessary. Soluble sulfate content of the surface soil should be reevaluated after grading and appropriate concrete mix designs should be established based upon post-grading test results.

The pH levels of the surface soil was determined to be 9.2. Based on soluble chloride concentration testing (80 ppm), the soil is considered to have a "very low" corrosion potential with respect to normal grade steel. The minimum resistivity of the surface soil was found to be 1,600 ohm-cm, that suggests the site soil is considered to have a "moderate" corrosion potential with respect to ferrous metal installations. A corrosion expert should be consulted regarding appropriate mitigation measures for corrosion sensitive materials.

UTILITY TRENCH BACKFILL

All utility trench backfill should be compacted to a minimum of 90 percent relative compaction . Trench backfill materials should be placed in lifts no greater than six inches in a loose condition, moisture conditioned (or air-dried) as necessary to achieve over optimum moisture content, and then mechanically compacted to a minimum of 90 percent relative compaction. A representative of the project soil engineer should test the backfill to verify adequate compaction.

EXTERIOR CONCRETE FLATWORK

To minimize cracking of concrete flatwork, the subgrade soil below concrete flatwork areas should be compacted to a minimum of 90 percent relative compaction. A representative of the project geotechnical consultant should observe and verify the density and moisture content of the soil prior to concrete placement.

DRAINAGE

All final grades should be provided with positive gradients away from foundations to provide rapid removal of surface water runoff to an adequate discharge point. No water should be allowed to be pond on or immediately adjacent to foundation elements. In order to reduce water infiltration into the subgrade soil, surface water should be directed away from building foundations to an adequate discharge point. Subgrade drainage should be evaluated upon completion of the precise grading plans and in the field during grading.

LIMITATIONS

The findings and recommendations presented in this report are based upon an interpolation of the soil conditions between the exploratory bore locations and extrapolation of these conditions throughout the proposed building areas. Should conditions encountered during grading appear different than those indicated in this report, this office should be notified.

The use of this report by other parties or for other projects is not authorized. The recommendations of this report are contingent upon monitoring of the grading operation by a representative of Sladden Engineering. All recommendations are considered to be tentative pending our review of the grading operation and additional testing, if indicated. If others are employed to perform any soil testing, this office should be notified prior to such testing in order to coordinate any required site visits by our representative and to assure indemnification of Sladden Engineering.

We recommend that a pre-job conference be held on the site prior to the initiation of site grading. The purpose of this meeting will be to assure a complete understanding of the recommendations presented in this report as they apply to the actual grading performed.

ADDITIONAL SERVICES

Once completed, final project plans and specifications should be reviewed by us prior to construction to confirm that the full intent of the recommendations presented herein have been incorporated into design and construction. Following review of plans and specifications, observation should be performed by the Soil Engineer during construction to document that foundation elements are founded on/or extend into the recommended soil, and that suitable backfill soil is placed upon competent materials and properly compacted at the recommended moisture content.

Tests and observations should be performed during grading by the Soil Engineer or his representative in order to verify that the grading is being performed in accordance with the project specifications. Field density testing shall be performed in accordance with acceptable ASTM test methods. The minimum acceptable degree of compaction should be 90 percent for subgrade soil and 95 percent for Class II aggregate base as obtained by ASTM Test Method D1557. Where testing indicates insufficient density, additional compactive effort shall be applied until retesting indicates satisfactory compaction.

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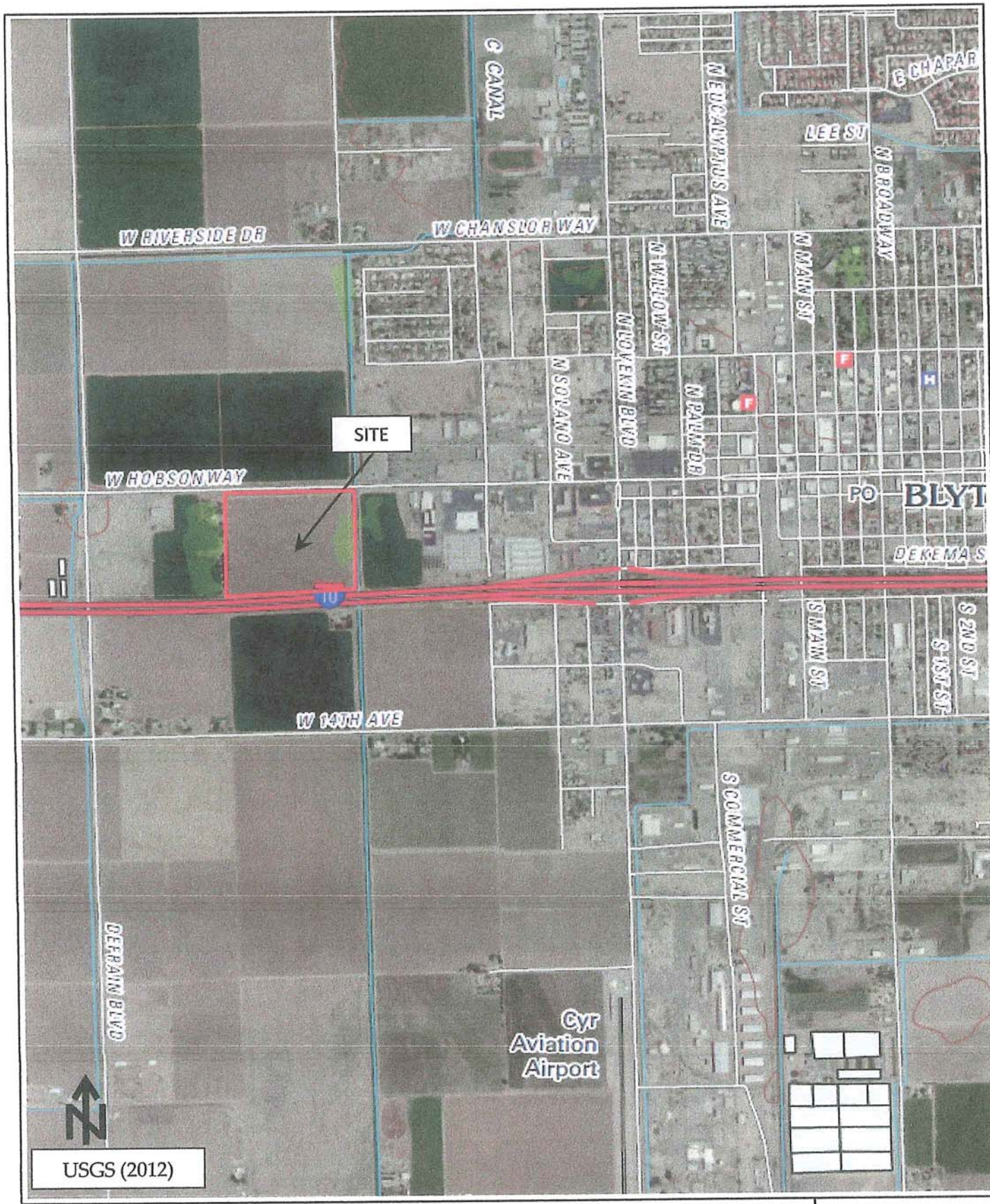
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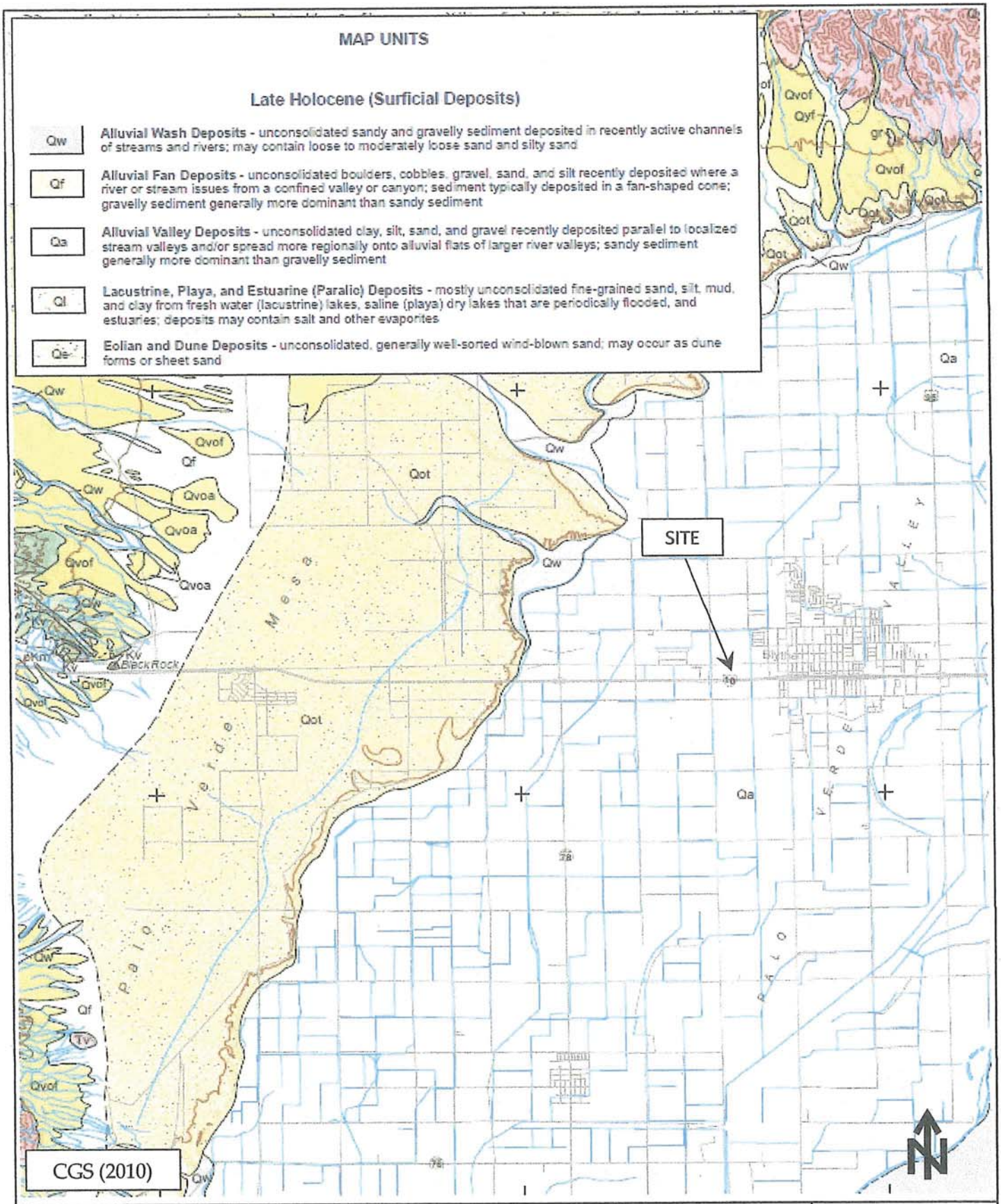
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FIGURES

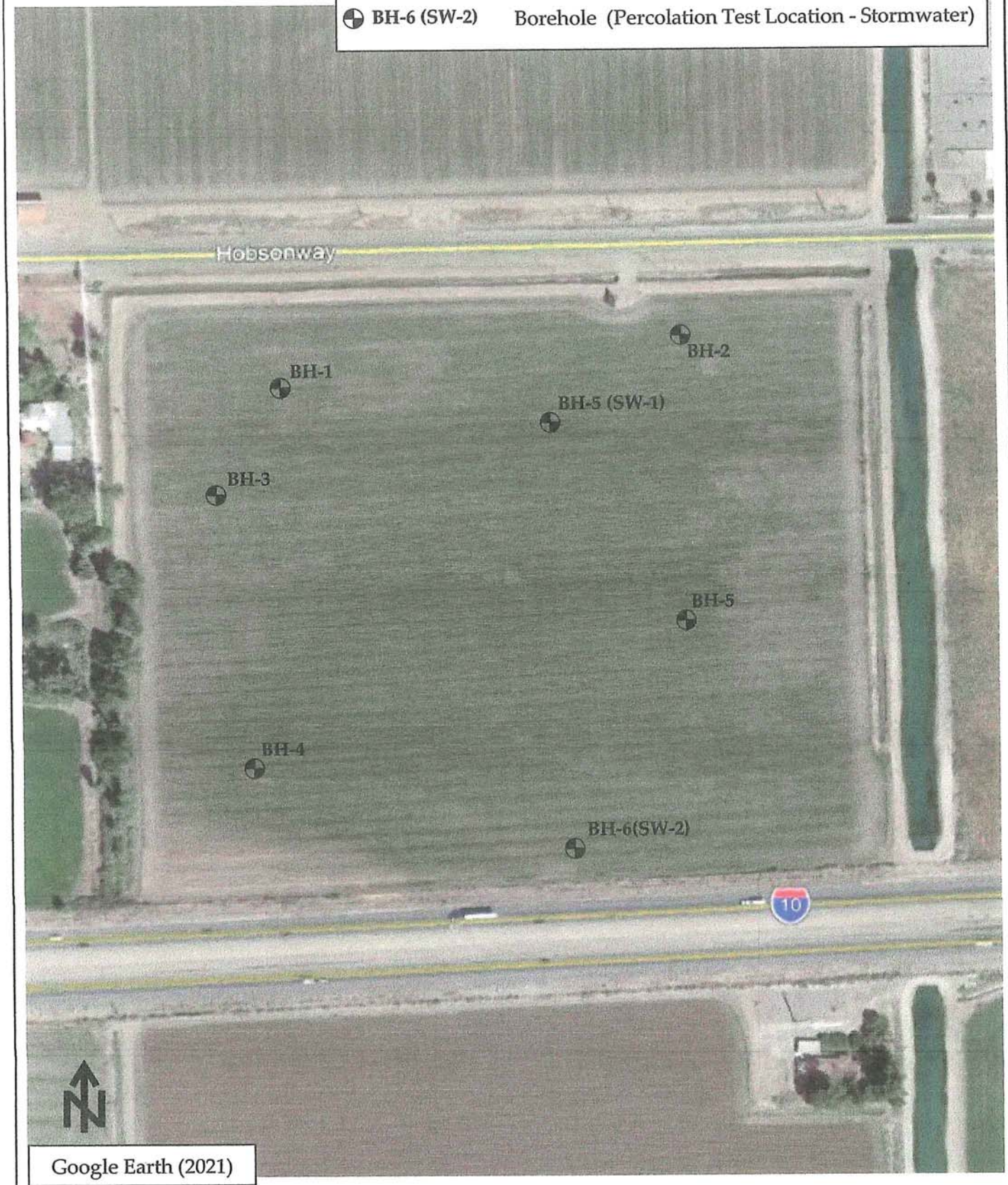
SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PHOTOGRAPH



Sladden Engineering	SITE LOCATION MAP		FIGURE 1
	Project Number:	544-21066	
	Report Number:	21-06-373	
	Date:	June 22, 2021	



Sladden Engineering	SITE LOCATION MAP	FIGURE 2
	Project Number: 544-21066	
	Report Number: 21-06-373	
	Date: June 22, 2021	



Sladden Engineering	EXPLORATION LOCATION PHOTOGRAPH		FIGURE 3
	Project Number:	544-21066	
	Report Number:	21-04-235	
	Date:	April 26, 2021	

APPENDIX A

FIELD EXPLORATION

APPENDIX A

FIELD EXPLORATION

For our field investigation, eleven exploratory bores were excavated on May 20, 2021 utilizing a truck mounted hollow stem auger rig (Mobile B-61) and hand equipment. Continuous logs of the materials encountered were made by a representative of Sladden Engineering. Materials encountered in the boreholes were classified in accordance with the Unified Soil Classification System that is presented in this appendix.

Representative undisturbed samples were obtained within our bores by driving a thin-walled steel penetration sampler (California split spoon sampler) or a Standard Penetration Test (SPT) sampler with a 140 pound automatic-trip hammer dropping approximately 30 inches (ASTM D1586). The number of blows required to drive the samplers 18 inches was recorded in 6-inch increments and blowcounts are indicated on the bore logs.

The California samplers are 3.0 inches in diameter, carrying brass sample rings having inner diameters of 2.5 inches. The standard penetration samplers are 2.0 inches in diameter with an inner diameter of 1.5 inches. Undisturbed samples were removed from the sampler and placed in moisture sealed containers in order to preserve the natural soil moisture content. Bulk samples were obtained from the excavation spoils. Samples were then transported to our laboratory for further observations and testing.

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
		1	4				0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
	3/4/6			75.0	27.7		4		
							6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
							8		
	4/5/5			83.8	26.7	98.2	10		Silty Clay (CL); reddish brown, wet, stiff, low platicity (Qa).
							12		
							14		
	13/17/17						16		No Recovery
							18		
							20		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

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SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	3/3/4			89.3	24.1	94.2	2		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/4/4			85.3	28.3	95.2	4		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
							6		
							8		
	3/5/6			21.6	26.4		10		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							12		
							14		
	5/7/8			3.9	22.9		16		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							18		
							20		
							22		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

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BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		
							4		
	4/5/7						6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium plasticity (Qa).
							8		
	3/5/6						10		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							12		
							14		
	6/8/8						16		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							18		
							20		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
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SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-4

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		
							4		
	5/5/6						6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium plasticity (Qa).
							8		
	5/8/12						10		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							12		
							14		
							16		Terminated at ~15.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
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BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-5/SW-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.5 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
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SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-6/SW-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.0 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
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							46		
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APPENDIX B

LABORATORY TESTING

APPENDIX B

LABORATORY TESTING

Representative bulk and relatively undisturbed soil samples were obtained in the field and returned to our laboratory for additional observations and testing. Laboratory testing was generally performed in two phases. The first phase consisted of testing in order to determine the compaction of the existing natural soil and the general engineering classifications of the soils underlying the site. This testing was performed in order to estimate the engineering characteristics of the soil and to serve as a basis for selecting samples for the second phase of testing. The second phase consisted of soil mechanics testing. This testing including consolidation, shear strength and expansion testing was performed in order to provide a means of developing specific design recommendations based on the mechanical properties of the soil.

CLASSIFICATION AND COMPACTION TESTING

Unit Weight and Moisture Content Determinations: Each undisturbed sample was weighed and measured in order to determine its unit weight. A small portion of each sample was then subjected to testing in order to determine its moisture content. This was used in order to determine the dry density of the soil in its natural condition. The results of this testing are shown on the Boring Logs.

Maximum Density-Optimum Moisture Determinations: Representative soil types were selected for maximum density determinations. This testing was performed in accordance with the ASTM Standard D1557, Test Method A. The results of this testing are presented graphically in this appendix. The maximum densities are compared to the field densities of the soil in order to determine the existing relative compaction to the soil.

Classification Testing: Soil samples were selected for classification testing. This testing consists of mechanical grain size analyses. This provides information for developing classifications for the soil in accordance with the Unified Soil Classification System which is presented in the preceding appendix. This classification system categorizes the soil into groups having similar engineering characteristics. The results of this testing is very useful in detecting variations in the soil and in selecting samples for further testing.

SOIL MECHANIC'S TESTING

Expansion Testing: One (1) bulk sample was selected for Expansion testing. Expansion testing was performed in accordance with the UBC Standard 18-2. This testing consists of remolding 4-inch diameter by 1-inch thick test specimens to a moisture content and dry density corresponding to approximately 50 percent saturation. The samples are subjected to a surcharge of 144 pounds per square foot and allowed to reach equilibrium. At that point the specimens are inundated with distilled water. The linear expansion is then measured until complete.

Direct Shear Testing: One (1) bulk sample was selected for Direct Shear testing. This test measures the shear strength of the soil under various normal pressures and is used to develop parameters for foundation design and lateral design. Tests were performed using a recompacted test specimen that was saturated prior to tests. Tests were performed using a strain controlled test apparatus with normal pressures ranging from 800 to 2300 pounds per square foot. Testing was performed in accordance with ASTM Test Method D-3080.

Consolidation: Two (2) relatively undisturbed samples were selected for consolidation testing. For this test, a one-inch thick test specimen was subjected to vertical loads varying from 575 psf to 11520 psf applied progressively. The consolidation at each load increment was recorded prior to placement of each subsequent load. Testing was performed in accordance with ASTM Test Method D-2435.

Corrosion Series Testing: The soluble sulfate concentrations of the surface soil were determined in accordance with California Test Method Number (CA) 417. The Ph and Minimum Resistivity were determined in accordance with CA 643. The soluble chloride concentrations were determined in accordance with CA 422.

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Maximum Density/Optimum Moisture

ASTM D698/D1557

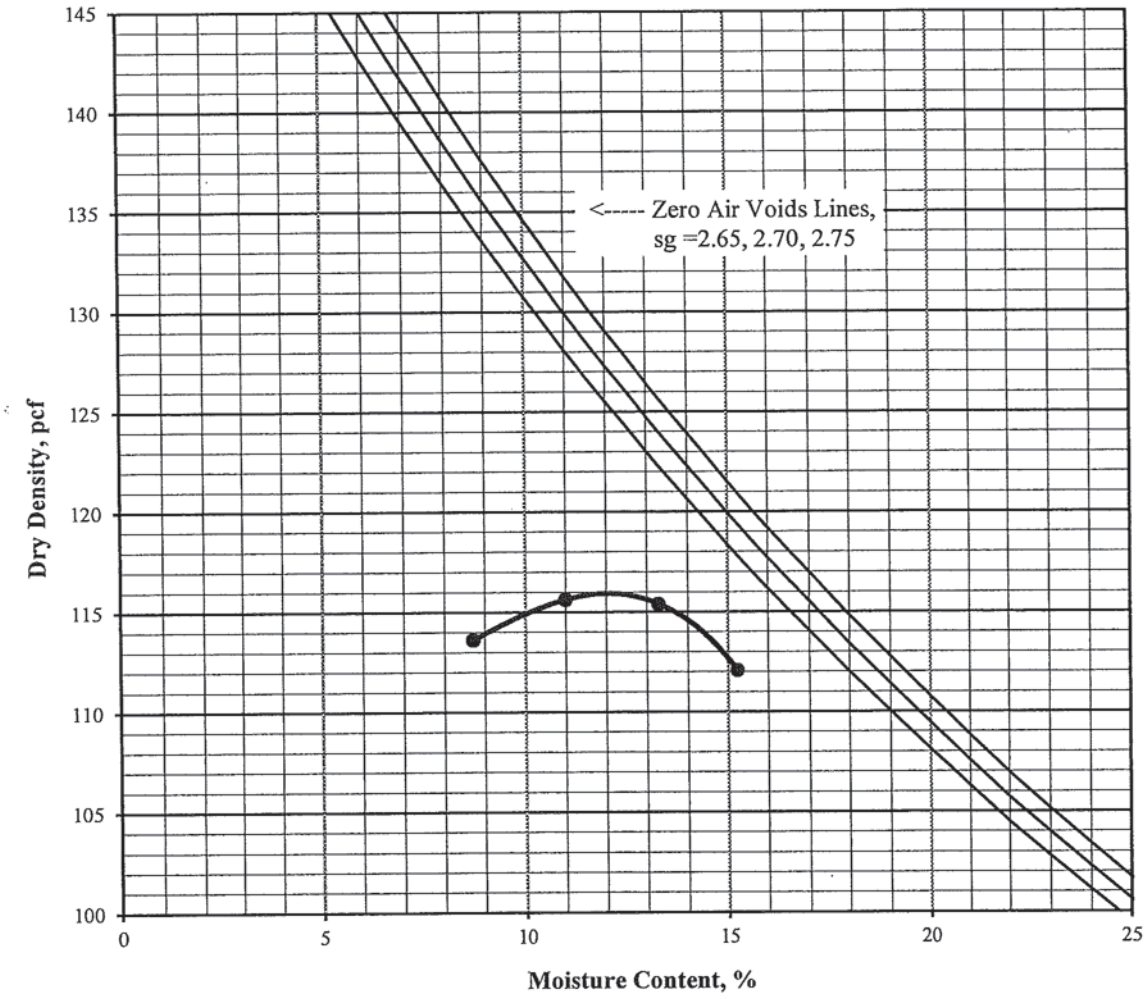
Project Number: 544-21066
Project Name: 11625 West Hobson Way
Lab ID Number: LN6-21175
Sample Location: BH-1 Bulk 1 @ 0-5'
Description: Red Brown Silt w/Sand (ML)

May 27, 2021

ASTM D-1557 A
Rammer Type: Machine

Maximum Density: 116 pcf
Optimum Moisture: 12%

Sieve Size	% Retained
3/4"	
3/8"	
#4	1.4



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Expansion Index

ASTM D 4829

May 27, 2021

Job Number: 544-21066
Job Name: 11625 West Hobson Way
Lab ID Number: LN6-21175
Sample ID: BH-1 Bulk 1 @ 0-5'
Soil Description: Red Brown Silt w/Sand (ML)

Wt of Soil + Ring:	563.9
Weight of Ring:	191.0
Wt of Wet Soil:	372.9
Percent Moisture:	9.8%
Sample Height, in	0.95
Wet Density, pcf:	119.3
Dry Denstiy, pcf:	108.7

% Saturation:	48.1

Expansion **Rack # 3**

Date/Time	5/25/2021	3:30 PM
Initial Reading	0.0000	
Final Reading	0.0037	

Expansion Index **4**

(Final - Initial) x 1000

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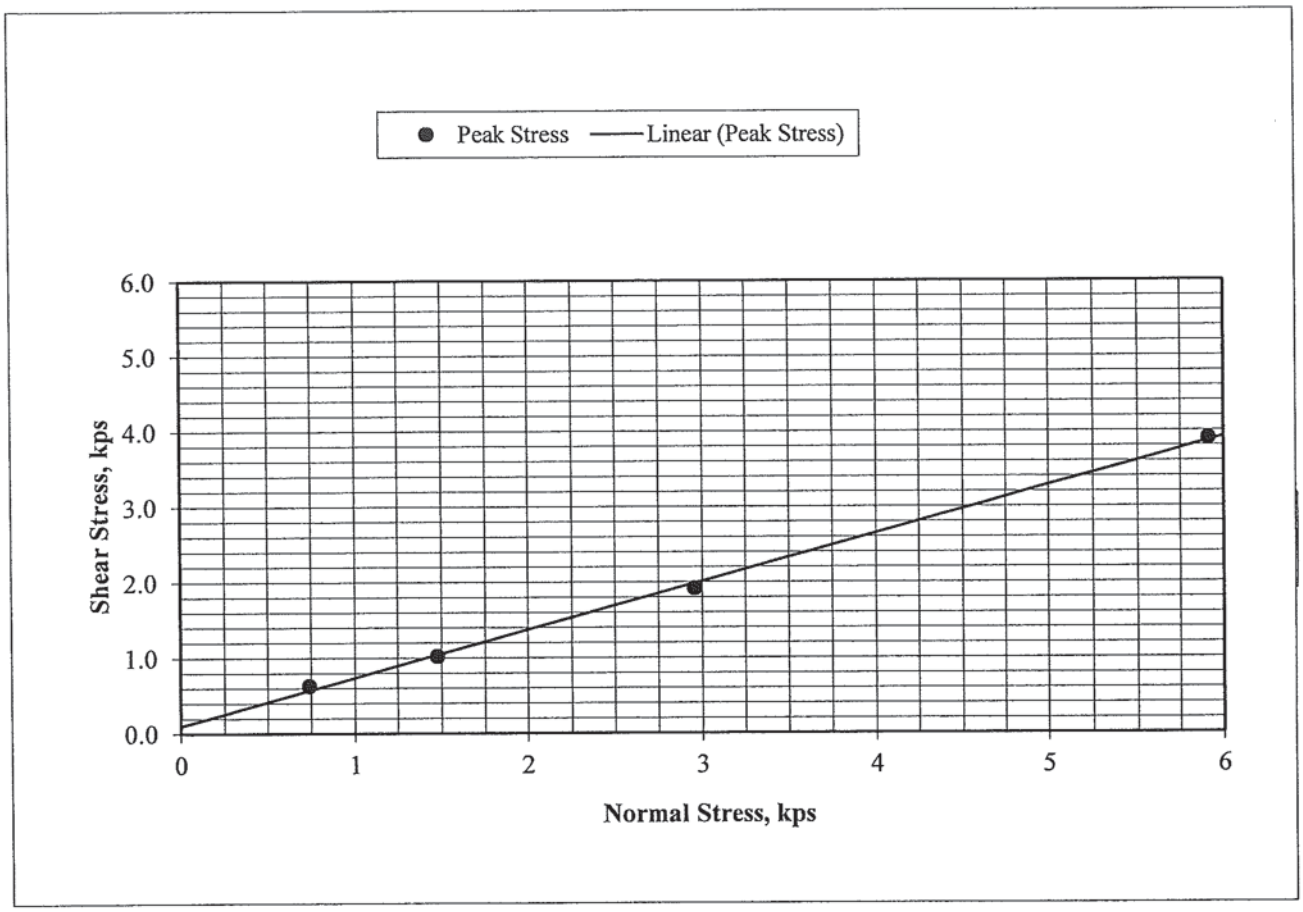
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Direct Shear ASTM D 3080-04
(modified for unconsolidated condition)

Job Number: 544-21066
Job Name 11625 West Hobson Way
Lab ID No. LN6-21175
Sample ID BH-1 Bulk 1 @ 0-5'
Classification Red Brown Silt w/Sand (ML)
Sample Type Remolded @ 90% of Maximum Density

May 27, 2021
Initial Dry Density: 104.4 pcf
Initial Mosture Content: 12.0 %
Peak Friction Angle (Ø): 32°
Cohesion (c): 100 psf

Test Results	1	2	3	4	Average
Moisture Content, %	19.6	19.6	19.6	19.6	19.6
Saturation, %	86.1	86.1	86.1	86.1	86.1
Normal Stress, kps	0.739	1.479	2.958	5.916	
Peak Stress, kps	0.632	1.025	1.918	3.902	



Job Number: 544-21066
Job Name: 11625 West Hobson Way
Date: 5/27/2021

Moisture Adjustment		Remolded Shear Weight	
Wt of Soil:	1,000	Max Dry Density:	116.0
Moist As Is:	9.0	Optimum Moisture:	12.0
Moist Wanted:	12.0		
ml of Water to Add:	27.5	Wt Soil per Ring, g:	140.6

UBC

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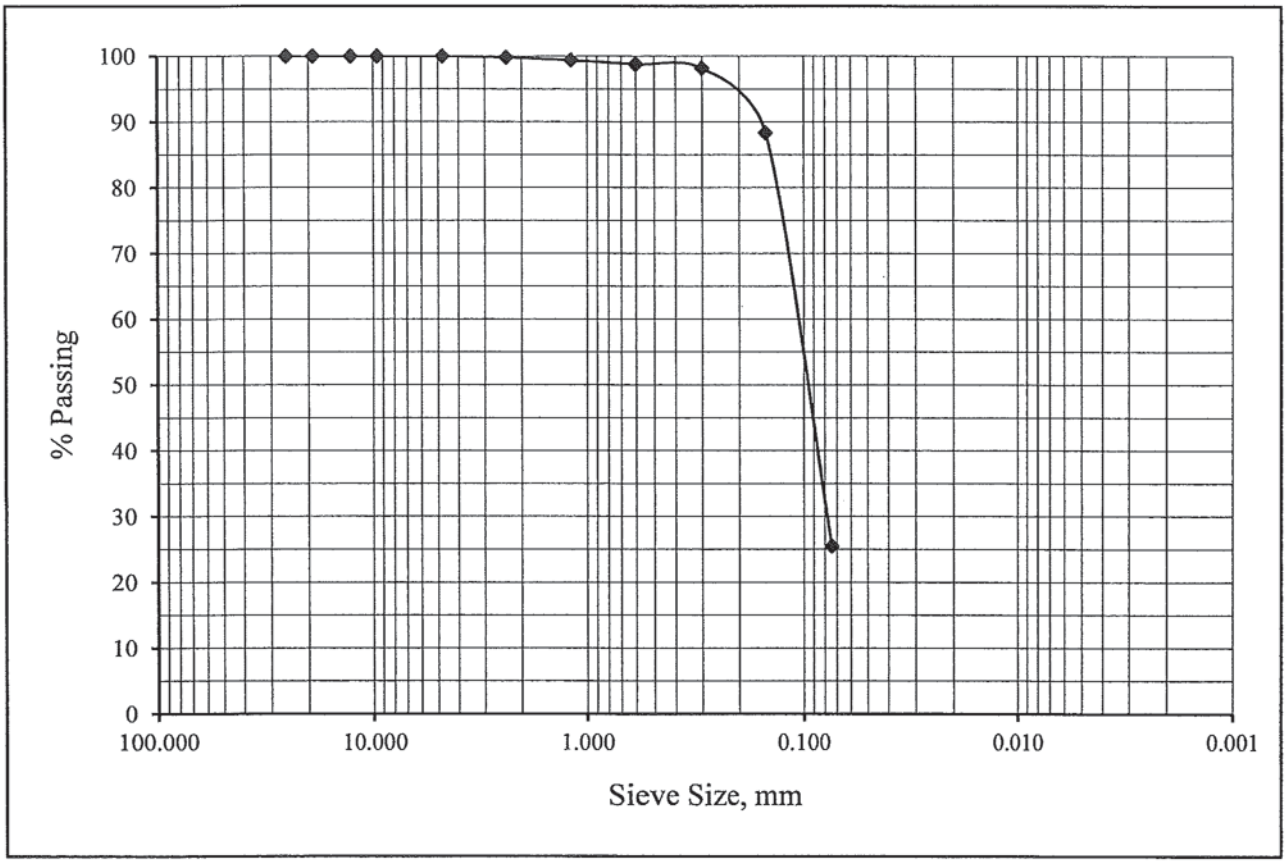
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Gradation

ASTM C117 & C136

Project Number: 544-21066 May 27, 2021
Project Name: 11625 West Hobson Way
Lab ID Number: LN6-21175
Sample ID: BH-1 S-2 @ 10' Soil Classification: SM

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	99.8
#16	1.18	99.4
#30	0.60	98.8
#50	0.30	98.2
#100	0.15	88.4
#200	0.074	25.5



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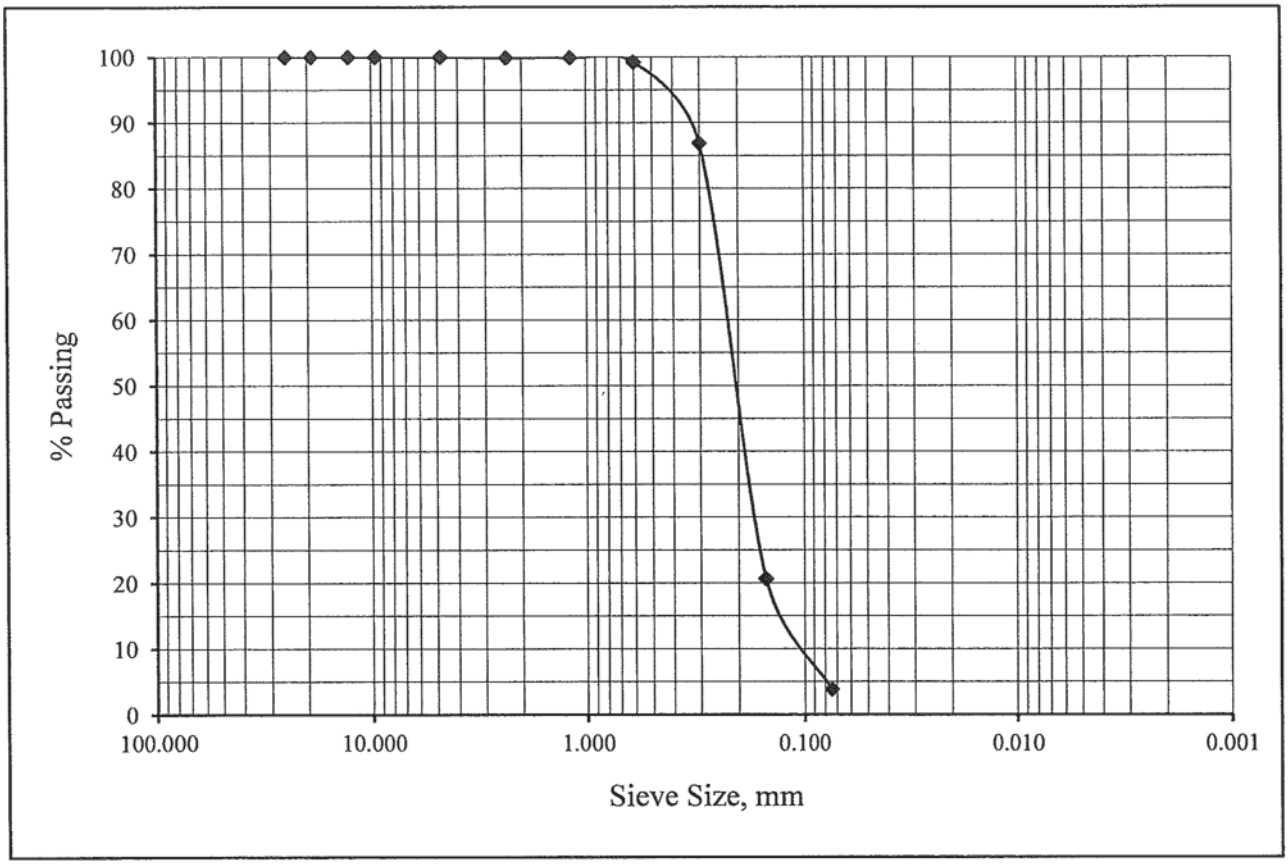
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Gradation

ASTM C117 & C136

Project Number: 544-21066 May 27, 2021
Project Name: 11625 West Hobson Way
Lab ID Number: LN6-21175
Sample ID: BH-2 S-4 @ 15' Soil Classification: SP

Sieve Size, in	Sieve Size, mm	Percent Passing
1"	25.4	100.0
3/4"	19.1	100.0
1/2"	12.7	100.0
3/8"	9.53	100.0
#4	4.75	100.0
#8	2.36	99.9
#16	1.18	99.9
#30	0.60	99.2
#50	0.30	86.9
#100	0.15	20.7
#200	0.074	3.8



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One Dimensional Consolidation

ASTM D2435 & D5333

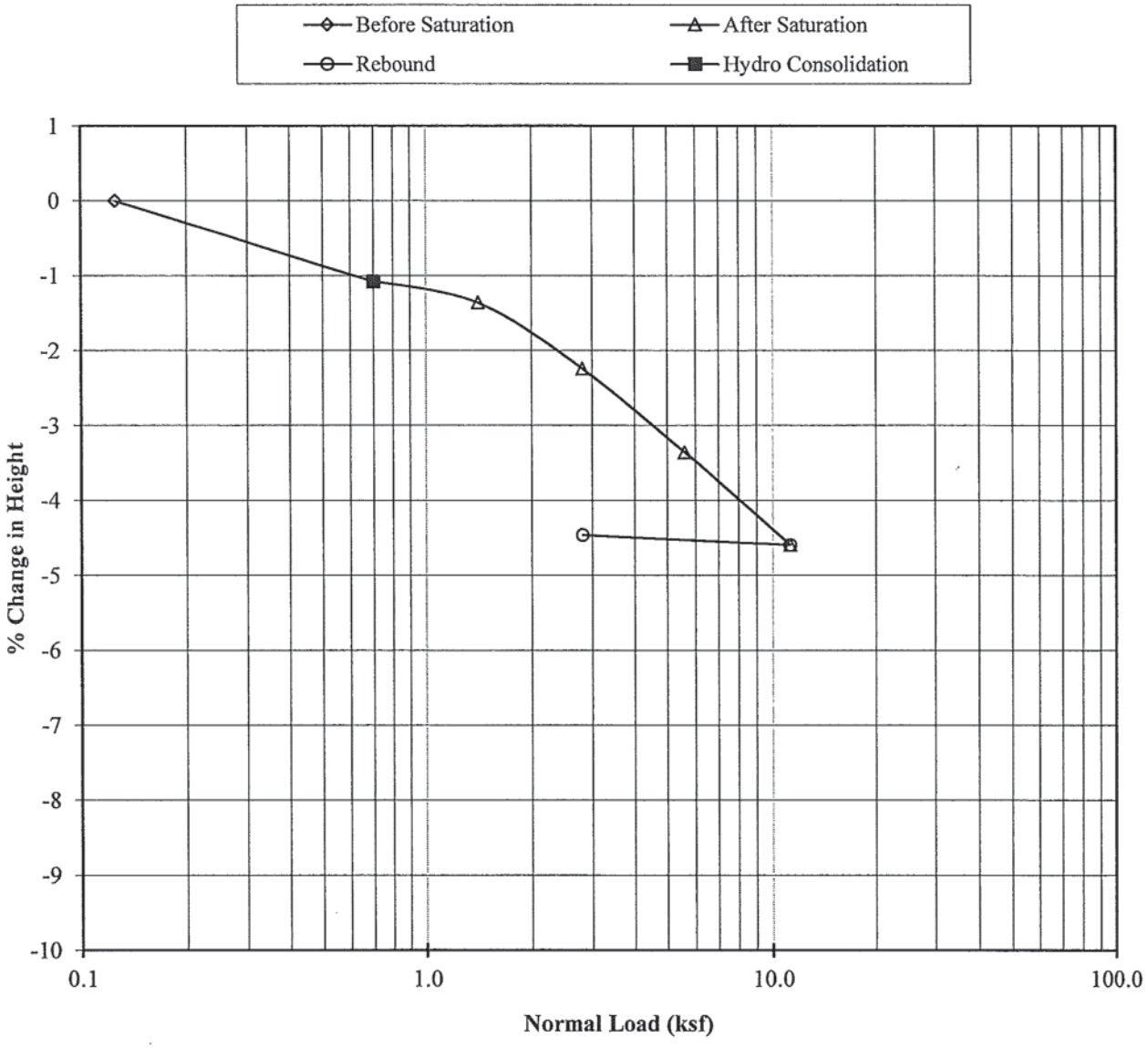
Job Number: 544-21066
Job Name: 11625 West Hobson Way

May 27, 2021

Lab ID Number: LN6-21175
Sample ID: BH-2 R-2 @ 5'
Soil Description: Red Brown Silt (ML)

Initial Dry Density, pcf:	94.7
Initial Moisture, %:	28.3
Initial Void Ratio:	0.760
Specific Gravity:	2.67

% Change in Height vs Normal Presssure Diagram



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Date: May 27, 2021

Account No.: 544-21066

Customer: Edelweiss Sustainable Farm, LLC c/o Jim Shaffer

Location: 11625 West Hobson Way, Blythe

Analytical Report

Corrosion Series

	pH per CA 643	Soluble Sulfates per CA 417 ppm	Soluble Chloride per CA 422 ppm	Min. Resistivity per CA 643 ohm-cm
BH-1 @ 0-5'	9.2	180	80	1600

APPENDIX C

SEISMIC DESIGN MAP AND REPORT

OSHPD

Latitude, Longitude: 33.6085, -114.6164



Date	6/22/2021, 10:17:29 AM
Design Code Reference Document	ASCE7-16
Risk Category	II
Site Class	D - Stiff Soil

Type	Value	Description
S_S	0.296	MCE_R ground motion. (for 0.2 second period)
S_1	0.156	MCE_R ground motion. (for 1.0s period)
S_{MS}	0.462	Site-modified spectral acceleration value
S_{M1}	0.357	Site-modified spectral acceleration value
S_{DS}	0.308	Numeric seismic design value at 0.2 second SA
S_{D1}	0.238	Numeric seismic design value at 1.0 second SA

Type	Value	Description
SDC	D	Seismic design category
F_a	1.563	Site amplification factor at 0.2 second
F_v	2.288	Site amplification factor at 1.0 second
PGA	0.133	MCE_G peak ground acceleration
F_{PGA}	1.535	Site amplification factor at PGA
PGA_M	0.203	Site modified peak ground acceleration
T_L	8	Long-period transition period in seconds
SsRT	0.296	Probabilistic risk-targeted ground motion. (0.2 second)
SsUH	0.31	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration
SsD	1.5	Factored deterministic acceleration value. (0.2 second)
S1RT	0.156	Probabilistic risk-targeted ground motion. (1.0 second)
S1UH	0.166	Factored uniform-hazard (2% probability of exceedance in 50 years) spectral acceleration.
S1D	0.6	Factored deterministic acceleration value. (1.0 second)
PGAd	0.5	Factored deterministic acceleration value. (Peak Ground Acceleration)
C_{RS}	0.953	Mapped value of the risk coefficient at short periods
C_{R1}	0.941	Mapped value of the risk coefficient at a period of 1 s

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450 Egan Avenue, Beaumont, CA. 92223 (951) 845-7743 Fax (951) 845-8863

June 22, 2021

Project No. 544-21066
21-06-376

Edelweiss Sustainable Farm, LLC
c/o Mr. Jim Shaffer
56540 Chipmunk Trail
Yucca Valley, California 92284

Project: Proposed Cultivation Facility
11625 West Hobsonway
Blythe, California

Subject: Percolation/Infiltration Testing for On-Site Storm Water Management

In accordance with your request, we have performed percolation testing on the subject site to evaluate the infiltration potential of the near surface soil to assist in storm water management system design. It is our understanding that on-site storm water retention including infiltration is proposed for the project.

Percolation testing was performed on May 20, 2021 within two (2) shallow tests bore excavated on the site. Testing was performed at depths of approximately 3.50 and 3.00 feet below existing grade for BH-5/SW-1 and BH-6/SW-2, respectively. The approximate locations of the test holes are presented on the attached Exploration Location Photograph (Figure 3). Testing was performed by placing water within the test bores and recording the drop in the water surface with time. Testing was performed in general accordance with the *United States Bureau of Reclamation (BOR) Procedure 7300-89 (1999)*. Test results are summarized in the following table.

PERCOLATION TEST RESULTS

Test No.	Depth (Ft)	USCS	Percolation Rate (in/hr)	Infiltration Rate (in/hr)
BH-5 (SW-1)	3.50	SC/CL	9.00	0.91
BH-6 (SW-2)	3.00	SC/CL	8.75	0.88

The percolation rates determined represent the ultimate field rates that do not include a safety factor. The corresponding infiltration rates were calculated using the Porchet Method. The rates determined should be considered representative of the low permeability clayey surface soil and the underlying high permeability sandy soil.

Groundwater was encountered at a depth of approximately 7.5 feet below existing grade during our field investigation and historical groundwater depths[1] have been recorded at a depth of 6.0 feet bgs in the project vicinity.

[1] California Department of Water Resources (CDWR), 2021, Water Data Library (WDL) Station Map available at: https://wdl.water.ca.gov/waterdatalibrary/

If you have any questions regarding this memo, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

James W. Minor III
Senior Geologist

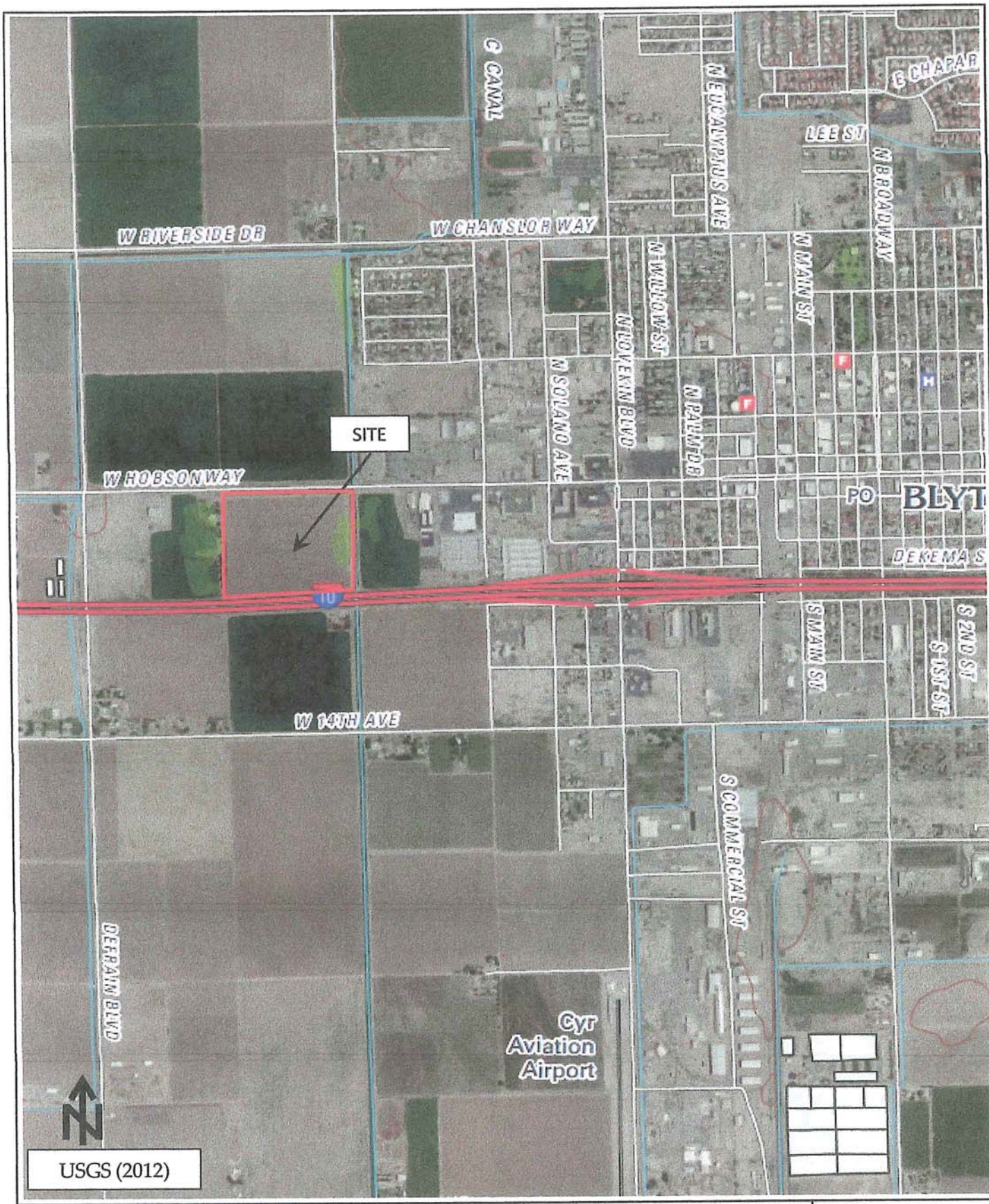
PROFESSIONAL GEOLOGIST
JAMES W. MINOR III
No. 9735
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
BRETT L. ANDERSON
No. C45389
CIVIL ENGINEERING
STATE OF CALIFORNIA

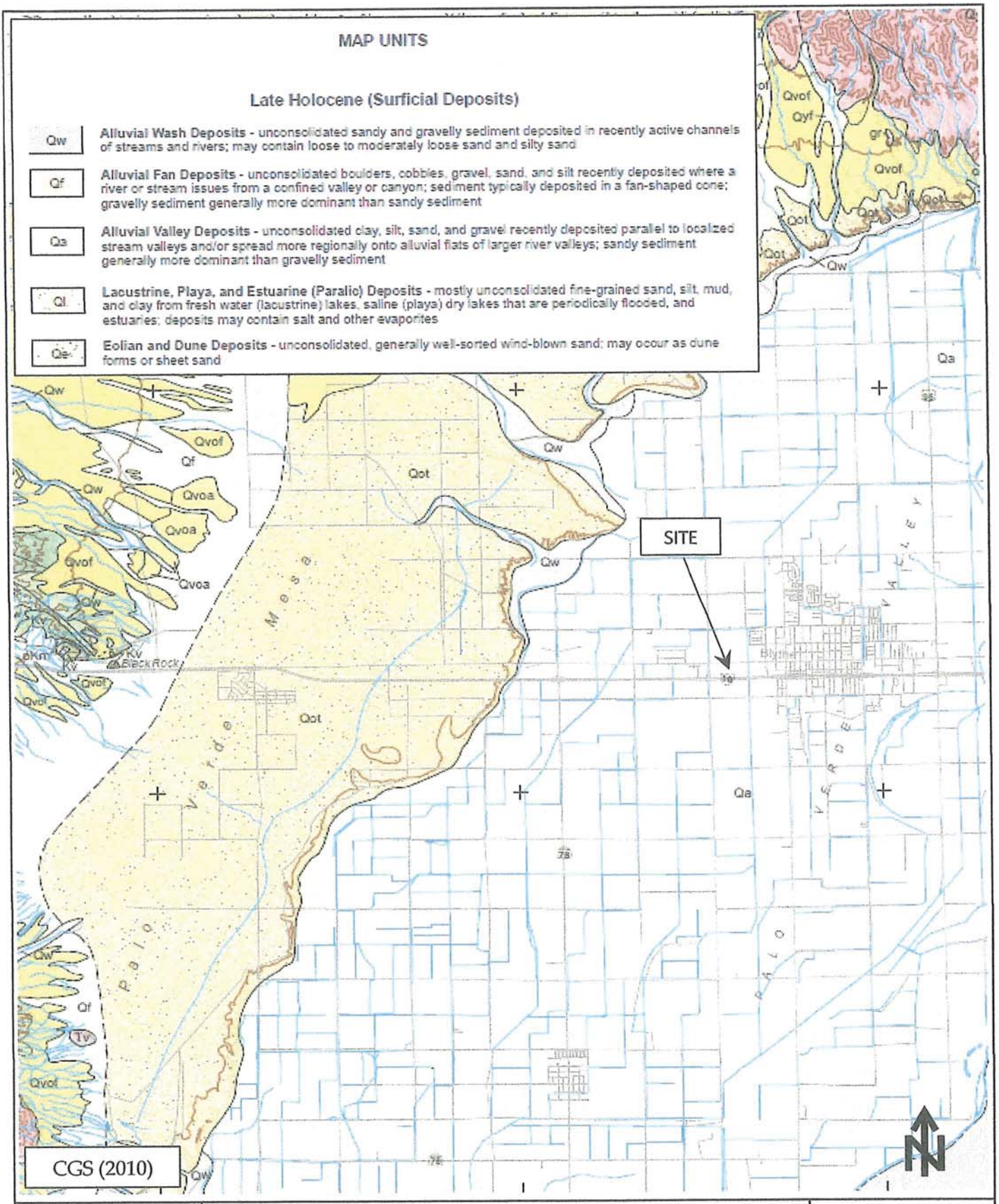
Brett L. Anderson
Principal Engineer

Copies: 4/Addressee

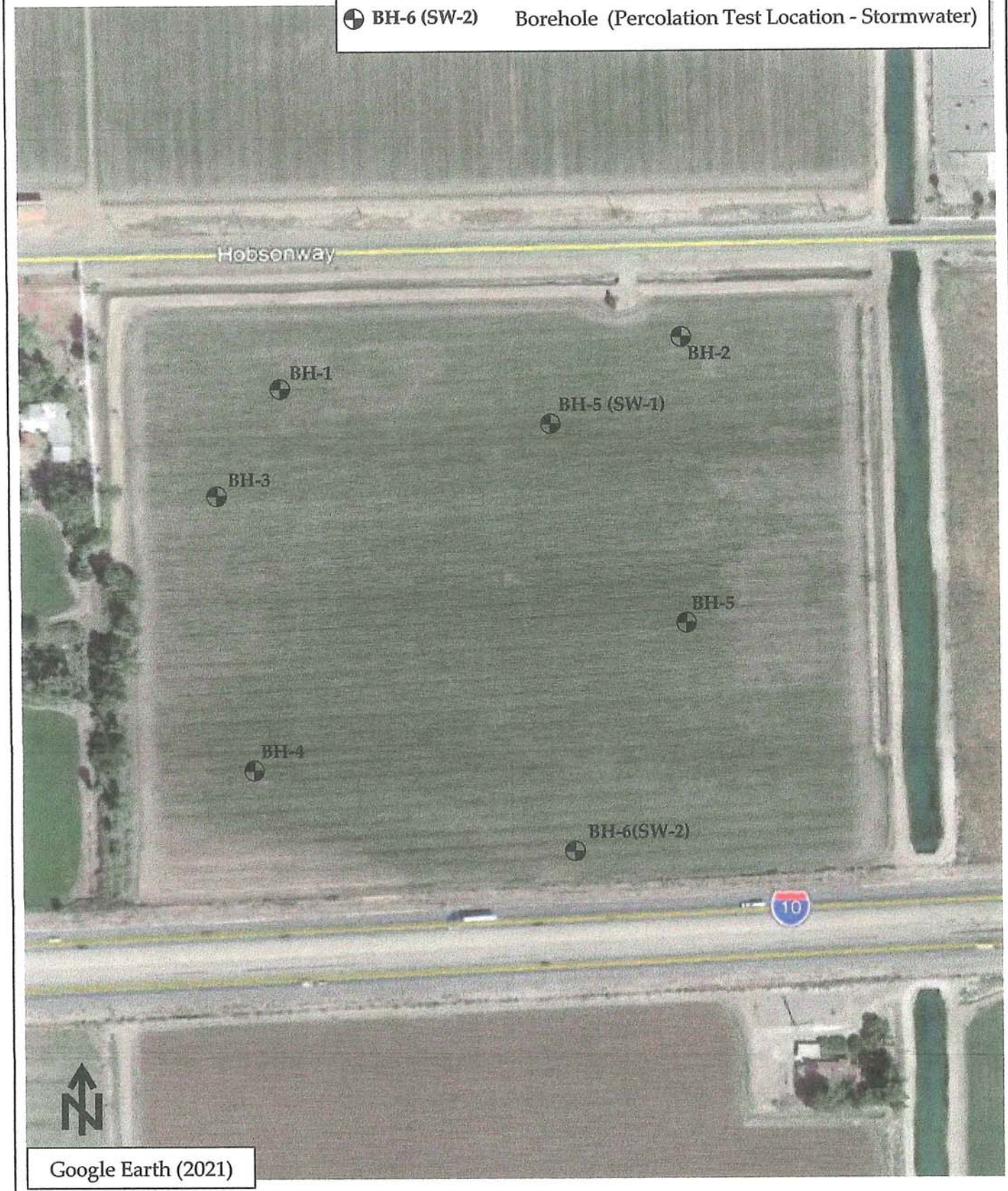
SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PHOTOGRAPH



	SITE LOCATION MAP		FIGURE
Sladden Engineering	Project Number:	544-21066	1
	Report Number:	21-06-376	
	Date:	June 22, 2021	



Sladden Engineering	SITE LOCATION MAP	FIGURE 2
	Project Number: 544-21066	
	Report Number: 21-06-376	
	Date: June 22, 2021	



Sladden Engineering	EXPLORATION LOCATION PHOTOGRAPH		FIGURE 3
	Project Number:	544-21066	
	Report Number:	21-06-376	
	Date:	June 22, 2021	

BORELOGS

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
		1	4				0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
	3/4/6			75.0	27.7		4		
							6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
							8		
	4/5/5			83.8	26.7	98.2	10		Silty Clay (CL); reddish brown, wet, stiff, low platicity (Qa).
							12		
							14		
	13/17/17						16		No Recovery
							18		
							20		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	3/3/4			89.3	24.1	94.2	2		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/4/4			85.3	28.3	95.2	4		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/5/6			21.6	26.4		6		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
	5/7/8			3.9	22.9		8		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							10		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							12		
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0–2		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	4/5/7						2–8		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/5/6						10–14		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
	6/8/8						16–20		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							20–50		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-4

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0–2		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	5/5/6						2–10		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	5/8/12						10–14		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							14–50		Terminated at ~15.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-5/SW-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.5 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-6/SW-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.0 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

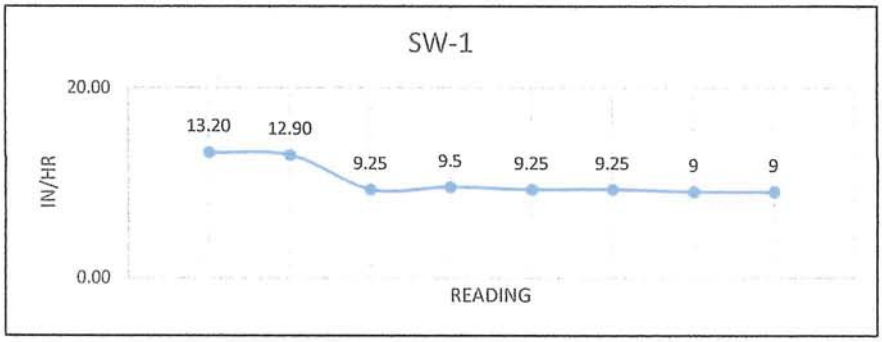
RIVERSIDE COUNTY STORMWATER TESTING DATA SHEETS

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	11625 West Hobsonway, Blythe; APN 836-:	Depth (ft):	3.50
Job No. :	544-21066	USCS Soil Class:	SC/CL
Date:	5/20/2021	Sandy Soil:	J.M.
Test Hole #:	BH-5 (SW-1)	Tested By:	R.F.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	3.50	20	14 4/8	5 4/8	13.20
B	25.00	3.50	20	14 5/8	5 3/8	12.90

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	3.50	20	15 3/8	4 5/8	9.25
2	30.00	3.50	20	15 2/8	4 6/8	9.5
3	30.00	3.50	20	15 3/8	4 5/8	9.25
4	30.00	3.50	20	15 3/8	4 5/8	9.25
5	30.00	3.50	20	15 4/8	4 4/8	9
6	30.00	3.50	20	15 4/8	4 4/8	9



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	26.50
r =	4.00
D_0 =	22
D_t =	42.00
H_0 =	20
H_f =	15.5
ΔH =	4.50
H_{avg} =	17.75

Δt (minutes)
D_f (Final Depth to water)
r (hole radius in inches)
D_0 (Initial Depth to water)
D_t (Total Depth of test hole)
H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

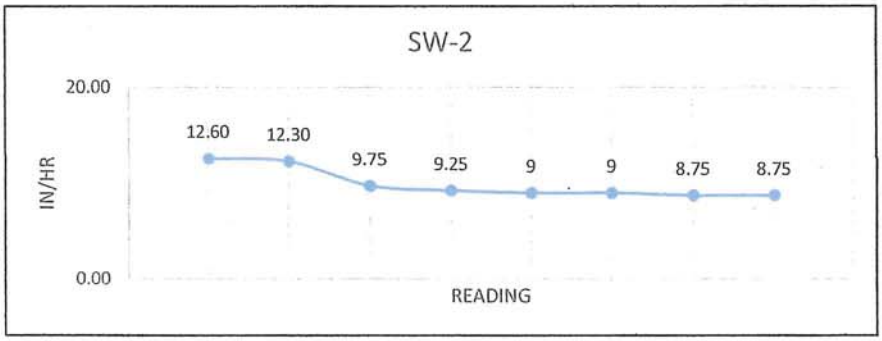
Field Rate:	9 in/hr
Infiltration Rate:	0.91 in/hr

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	11625 West Hobsonway, Blythe; APN 836-:	Depth (ft):	3.00
Job No. :	544-21066	USCS Soil Class:	CL
Date:	5/20/2021	Sandy Soil:	J.M.
Test Hole #:	BH-6 (SW-2)	Tested By:	R.F.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	3.00	20	14 6/8	5 2/8	12.60
B	25.00	3.00	20	14 7/8	5 1/8	12.30

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	3.00	20	15 1/8	4 7/8	9.75
2	30.00	3.00	20	15 3/8	4 5/8	9.25
3	30.00	3.00	20	15 4/8	4 4/8	9
4	30.00	3.00	20	15 4/8	4 4/8	9
5	30.00	3.00	20	15 5/8	4 3/8	8.75
6	30.00	3.00	20	15 5/8	4 3/8	8.75



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	20.38
r =	4.00
D_0 =	16
D_t =	36.00
H_0 =	20
H_f =	15.625
ΔH =	4.38
H_{avg} =	17.81

Δt (minutes)

D_f (Final Depth to water)

r (hole radius in inches)

D_0 (Initial Depth to water)

D_t (Total Depth of test hole)

H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

Field Rate:	8.75 in/hr
Infiltration Rate:	0.88 in/hr

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix H

Paleontological Report

May 2022

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PALEONTOLOGICAL RESOURCES ASSESSMENT REPORT

EDELWEISS SUSTAINABLE FARMS PROJECT

Assessor's Parcel Number 836-100-007
City of Blythe, Riverside County, California

For Submittal to:

City of Blythe
Development Services Department
235 North Broadway
Blythe, CA 92225

Prepared for:

Edelweiss Sustainable Farms, LLC
6086 Yucca Mesa Road
Yucca Valley, CA 92284

Prepared by:

Ben Kerridge, Paleontologist/Report Writer
CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai Tom Tang, Principal Investigator
Michael Hogan, Principal Investigator

January 23, 2022
Revised April 20, 2022

CRM TECH Contract No. 3752
Approximately 34 acres
USGS Blythe, Calif., 7.5 (1:24,000) quadrangle
Section 31, T6S R23E, San Bernardino Baseline and Meridian

EXECUTIVE SUMMARY

Between July 2021 and January 2022, at the request of Edelweiss Sustainable Farms, LLC, CRM TECH performed a paleontological resource assessment on approximately 34 acres of agricultural land in the City of Blythe, Riverside County, California. The subject property of the study, Assessor's Parcel Number 836-100-007, is located on the south side of Hobson Way and the east side of C Canal, in the southwest quarter of Section 31, Township 6 South, Range 23 East, San Bernardino Baseline and Meridian.

The study is part of the environmental review process for the proposed construction of a cannabis cultivation facility on the property, which is anticipated to reach the maximum depth of disturbance at 15 feet below surface. The City of Blythe, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey. Throughout the course of these research procedures, no paleontological resources were identified within or adjacent to the project area. Geological sources consulted during this study disagree on the prevailing sediments in the project area. However, the potential for the presence of Pleistocene-age alluvium, which generally has a high potential to contain significant, nonrenewable fossil remains, at unknown depths below surface is clear. Due to past ground disturbance, an accurate assessment of the paleontological sensitivity of the native soils was difficult to ascertain.

Based on these findings, CRM TECH concludes that the proposed project's potential to impact significant, nonrenewable paleontological resources appears to be low in the disturbed surface soils but high in the undisturbed native soils below surface. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent such impacts or reduce them to a level less than significant. As the primary component of the mitigation program, all earth-moving operations reaching beyond the depth of three feet should be monitored by a qualified paleontological monitor. Under this condition, the proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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INTRODUCTION

Between July 2021 and January 2022, at the request of Edelweiss Sustainable Farms, LLC, CRM TECH performed a paleontological resource assessment on approximately 34 acres of agricultural land in the City of Blythe, Riverside County, California (Figure 1). The subject property of the study, Assessor's Parcel Number 836-100-007, is located on the south side of Hobson Way and the east side of C Canal, in the southwest quarter of Section 31, Township 6 South, Range 23 East, San Bernardino Baseline and Meridian (Figures 2, 3).

The study is part of the environmental review process for the proposed construction of a cannabis cultivation facility on the property, which is anticipated to reach the maximum depth of disturbance at 15 feet below surface. The City of Blythe, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA; PRC §21000, et seq.). The purpose of the study is to provide the City with the necessary information and analysis to determine whether the proposed project would adversely affect any significant, nonrenewable paleontological resources, as required by CEQA, and to design a paleontological mitigation program, if necessary.

In order to identify any paleontological resource localities that may exist in or near the project area and to assess the probability for such resources to be encountered during the project, CRM TECH initiated a records search at the appropriate repository, conducted a literature review, and carried out a systematic field survey. The following report is a complete account of the methods, results, and final conclusion of this study. Personnel who participated in the study are named in the appropriate sections below, and their qualifications are provided in Appendix 1.

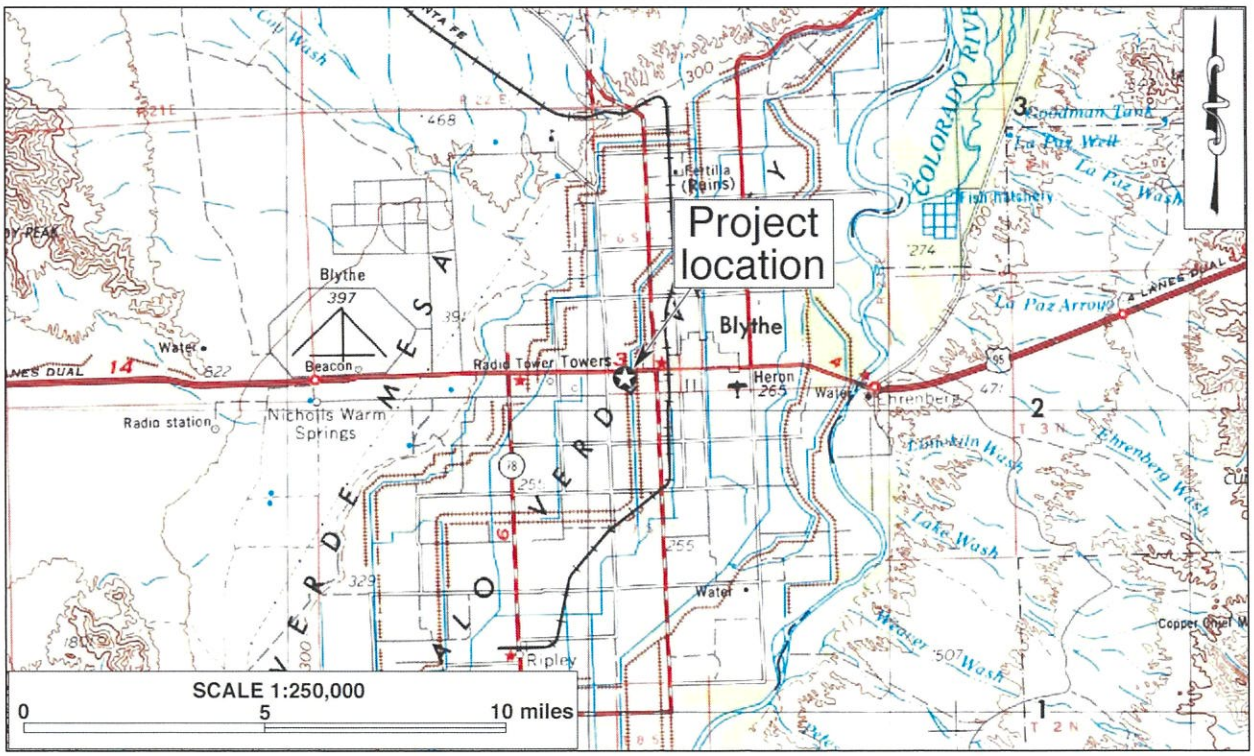


Figure 1. Project vicinity. (Based on USGS Salton Sea, Calif.-Ariz., 120'x60' quadrangle, 1969 edition)

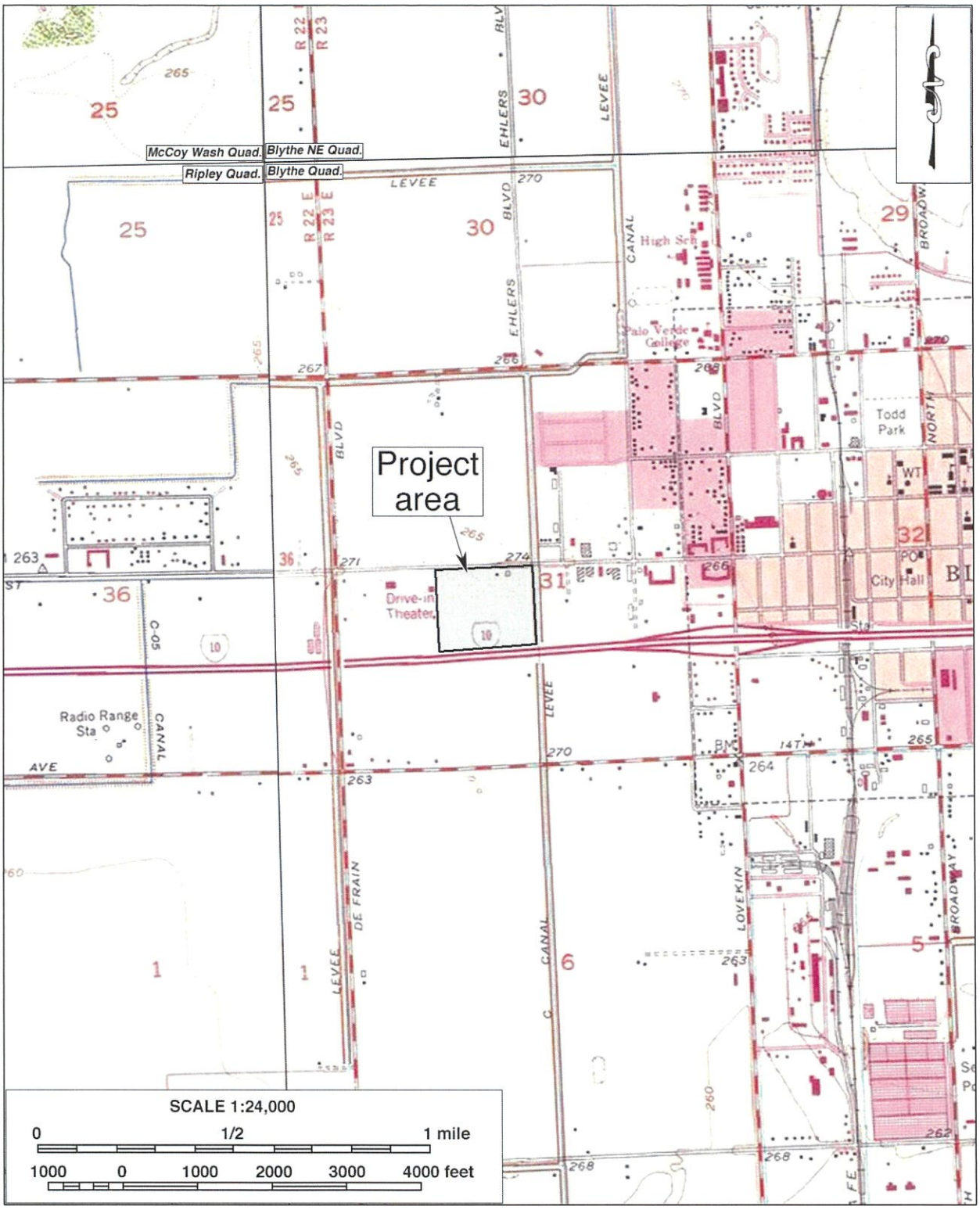


Figure 2. Project location. (Based on USGS Blythe, Blythe NE, McCoy Wash, and Ripley, Calif., 7.5' quadrangles, 1970-1975 edition)



Figure 3. Recent satellite image of the project area.

PALEONTOLOGICAL RESOURCES

DEFINITION

Paleontological resources represent the remains of prehistoric life, exclusive of any human remains, and include the localities where fossils were collected as well as the sedimentary rock formations in which they were found. The defining character of fossils or fossil deposits is their geologic age, which is typically regarded as older than approximately 12,000 years, the generally accepted temporal boundary marking the end of the last late Pleistocene (circa 2.6 million to 12,000 years B.P.) glaciation and the beginning of the current Holocene epoch (circa 12,000 years B.P. to the present).

Common fossil remains include marine shells; the bones and teeth of fish, amphibians, reptiles, and mammals; leaf assemblages; and petrified wood. Fossil traces, another type of paleontological resource, include internal and external molds (impressions) and casts created by these organisms. These items can serve as important guides to the age of the rocks and sediments in which they are contained and may prove useful in determining the temporal relationships between rock deposits from one area and those from another as well as the timing of geologic events. They can also provide information regarding evolutionary relationships, development trends, and environmental conditions.

Fossil resources generally occur only in areas of sedimentary rock (e.g., sandstone, siltstone, mudstone, claystone, or shale). Because of the infrequency of fossil preservation, fossils, particularly vertebrate fossils, are considered nonrenewable paleontological resources. Occasionally fossils may be exposed at the surface through the process of natural erosion or because of human disturbances; however, they generally lay buried beneath the surficial soils. Thus, the absence of fossils on the surface does not preclude the possibility of their being present within subsurface deposits, while the presence of fossils at the surface is often a good indication that more remains may be found in the subsurface.

SIGNIFICANCE CRITERIA

According to guidelines proposed by Eric Scott and Kathleen Springer (2003) of the San Bernardino County Museum, paleontological resources can be considered to be of significant scientific interest if they meet one or more of the following criteria:

1. The fossils provide information on the evolutionary relationships and developmental trends exhibited among organisms, living or extinct;
2. The fossils provide data useful in determining the age(s) of the rock unit or sedimentary stratum, including data important in determining the depositional history of the region and the timing of geologic events therein;
3. The fossils provide data regarding the development of biological communities or the interactions between paleobotanical and paleozoological biota;
4. The fossils demonstrate unusual or spectacular circumstances in the history of life; and/or
5. The fossils are in short supply and/or in danger of being depleted or destroyed by the elements, vandalism, or commercial exploitation, and are not found in other geographic locations.

PALEONTOLOGICAL SENSITIVITY

The fossil record is unpredictable, and the preservation of organic remains is rare, requiring a particular sequence of events involving physical and biological factors. Skeletal tissue with a high percentage of mineral matter is the most readily preserved within the fossil record; soft tissues not intimately connected with the skeletal parts, however, are the least likely to be preserved (Raup and Stanley 1978). For this reason, the fossil record contains a biased selection not only of the types of organisms preserved but also of certain parts of the organisms themselves. As a consequence, paleontologists are unable to know with certainty, the quantity of fossils or the quality of their preservation that might be present within any given geologic unit.

Sedimentary units that are paleontologically sensitive are those geologic units (mappable rock formations) with a high potential to contain significant nonrenewable paleontological resources. More specifically, these are geologic units within which vertebrate fossils or significant invertebrate fossils have been determined by previous studies to be present or are likely to be present. These units include, but are not limited to, sedimentary formations that contain significant paleontological resources anywhere within their geographical extent as well as sedimentary rock units temporally or lithologically amenable to the preservation of fossils.

A geologic formation is defined as a stratigraphic unit identified by its lithic characteristics (e.g., grain size, texture, color, and mineral content) and stratigraphic position. There is a direct relationship between fossils and the geologic formations within which they are enclosed and, with sufficient knowledge of the geology and stratigraphy of a particular area, it is possible for paleontologists to reasonably determine the formation's potential to contain significant nonrenewable vertebrate, invertebrate, marine, or plant fossil remains.

The paleontological sensitivity for a geologic formation is determined by the potential for that formation to produce significant nonrenewable fossils. This determination is based on what fossil resources the particular geologic formation has produced in the past at other nearby locations. Determinations of paleontologic sensitivity must consider not only the potential for yielding vertebrate fossils but also the potential of yielding a few significant fossils that may provide new and significant taxonomic, phylogenetic, and/or stratigraphic data.

The Society of Vertebrate Paleontology issued a set of standard guidelines intended to assist paleontologists to assess and mitigate any adverse effects/impacts to nonrenewable paleontological resources. The guidelines defined four categories of paleontological sensitivity for geologic units that might be impacted by a proposed project, as listed below (Society of Vertebrate Paleontology 2010:1-2):

- **High Potential**: Rock units from which vertebrate or significant invertebrate, plant, or trace fossils have been recovered.
- **Undetermined Potential**: Rock units for which little information is available concerning their paleontological content, geologic age, and depositional environment.
- **Low Potential**: Rock units that are poorly represented by fossil specimens in institutional collections, or based on general scientific consensus only preserve fossils in rare circumstances.
- **No Potential**: Rock units that have no potential to contain significant paleontological resources, such as high-grade metamorphic rocks and plutonic igneous rocks.

SETTING

REGIONAL GEOLOGICAL CONTEXT

The City of Blythe lies in the heart of the Palo Verde Valley, a narrow inland valley along the Colorado River and the California-Arizona border. The region is a part of the southwestern rim of the Mojave Desert geomorphic province, which is bounded on the west by the Transverse Ranges, on the southwest by Colorado Desert province along the San Andreas Fault, and on the north by the Basin and Range province along the extension of the Garlock Fault (CGS 2002:3; Harden 2004:62-63). To the east, the Mojave Desert includes portions of Nevada, Arizona, and Utah. This geomorphic province is characterized by isolated mountain ranges separated by desert expanses, with numerous enclosed drainages (CGS 2002:3).

The mountains in the Mojave Desert geomorphic province are geologically complex in origin. The Big and Little Maria, Riverside, and McCoy Mountains consist of Proterozoic gneiss and granite of the tectonically stable North American Craton overlain by Paleozoic to early Jurassic metasedimentary rocks (marble, schist, and quartzite), similar to units on the Colorado Plateau to the east (Stone 2006). These strata are overlain by metamorphosed Jurassic volcanic rocks intruded by Plutonic rocks of the same timeframe, part of an expansive arc of magmatic geology in the greater region (*ibid.*).

The McCoy Mountains specifically, just northwest of the project area, are the namesake of a regionally dominant formation: the McCoy Mountains Formation (Harding and Coney 1985:755-764). The formation consists of six members of very thick, weakly metamorphosed siltstone, sandstone, mudstone, and conglomerate of Jurassic or Cretaceous origin (*ibid.*). It underlies the project area itself and is described as a thick intrusive-extrusive volcanic terrane with local nonconformities and disconformities dating to late Triassic or early Jurassic lying atop the North American Craton (*ibid.*:765).

Miocene sedimentary and volcanic rock accumulated in the basin and tectonic activity deformed these strata along low-angle detachment faults (Stone 2006). The geology of the basin upon which the project area sits is late Miocene to Holocene in origin and includes limestone and fine-grained clastic sediments in the oldest layers representing estuarine or marine paleoenvironments and alluvium from local mountain ranges and the Colorado River floodplain in the youngest layers (Harding and Coney 1985; Stone 2006).

CURRENT NATURAL SETTING

The project area is located on the western outskirts of the City of Blythe, approximately five miles west of the current course of the Colorado River. It is bounded by Interstate Highway 10 on the south, Hobson Way on the north, and C Canal on the east. An unpaved access road and a row of trees separate the property from the adjacent parcel to the west. The nearby area to the west of the project location is dominated by agricultural pursuits, and the land uses gradually shifts to suburban and commercial to the east.

The project area consists entirely of leveled and irrigated farmland that is currently used to grow alfalfa (Figure 4). The ground surface has been extensively disturbed by past grade adjustment,



Figure 4. Overview of the current natural setting of the project area. (Photograph taken on September 10, 202; view to the northwest)

ongoing agricultural use and, along the edges, the construction of the adjacent canal and roadways. Elevations on the property range approximately between 260 to 265 feet above mean sea level. The surface soils are composed primarily of fine silty and clayey sand. In addition to the alfalfa crops in the field, the vegetation observed in the project area also includes tumbleweed and other small grasses and shrubs along the perimeters (Figure 4).

METHODS AND PROCEDURES

RECORDS SEARCHES

The paleontological resources records search service for this study was provided by the Western Science Center (WSC) in Hemet, California, which maintains files of regional paleontological localities as well as supporting maps and documents. The records search results were used to identify previously completed paleontological resource assessments in the vicinity as well as known paleontological localities within a one-mile radius of the project area. A copy of the records search results is attached to this report in Appendix 2.

LITERATURE REVIEW

In conjunction with the records searches, CRM TECH paleontologist Ben Kerridge pursued a literature review on the project area and vicinity. Sources consulted during the review include primarily topographic, geologic, and soil maps of the Blythe area, published geologic literature

pertaining to the project location, the Riverside County General Plan and Geographic Information System, satellite and aerial images available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software, and other materials in the CRM TECH library, including unpublished reports produced during similar surveys in the vicinity.

FIELD SURVEY

On September 10, 2021, CRM TECH paleontological surveyor Daniel Ballester carried out the field survey of the project area under the direction of principal paleontologist Ron Schmidtling. Dictated by variations in the density of vegetation cover and, consequently, in the level of ground visibility, the survey utilized a combination of reconnaissance-level and intensive-level field procedures. The intensive-level survey, covering mainly the western, northern, and eastern edges of the property (Figure 5), was conducted by walking a series of parallel transects at five-meter (approximately 15-foot) intervals.

Most of the interior portion of the property was surveyed at reconnaissance level by walking along roads across the alfalfa fields and inspecting ground surface wherever it is exposed, aided by an aerial drone flying over and photographing the areas covered by the crops. In this way, the entire project area was surveyed systematically to determine the soil types, to verify the geological formations, and to look for any indications of paleontological remains. In light of the extent of past disturbance to the ground surface, the levels of ground visibility and survey effort were deemed

RESULTS AND FINDINGS

RECORDS SEARCHES

The records search by the WSC identified no known paleontological localities within the project area but did find numerous localities within similar geological contexts in the region (McDonald 2021; see Appendix 2). The WSC describes the soils in the project area as Quaternary alluvium that is Pliocene to Holocene in age, which is considered to be of high paleontological sensitivity (*ibid.*). In particular, "Pleistocene alluvial deposits in southern California are well documented and known to contain abundant fossil resources including those associated with Columbian mammoth (*Mammuthus columbi*), Pacific mastodon (*Mammut pacificus*), sabertooth cat (*Smilodon fatalis*), ancient horse (*Equus* sp.), and many other Pleistocene megafauna" (*ibid.*).

LITERATURE REVIEW

The surface geology in the project area was mapped by Jennings (1967) as *Qal*, namely Holocene alluvium. Stone (2006) identifies it as *Qr*, or Holocene alluvium of the modern Colorado River flood plain (Figure 6), and describes it as unconsolidated sand, silt, and mud largely converted to farmland. Block et al. (2019) show the surface geology of the project area to be Qcb_1, which they define as Oldest alluvial deposits dating to the early Holocene. Riverside County paleontological sensitivity maps classified the project location as Low Sensitivity (RCIT 2021). According to definitions outlined in the County's General Plan:

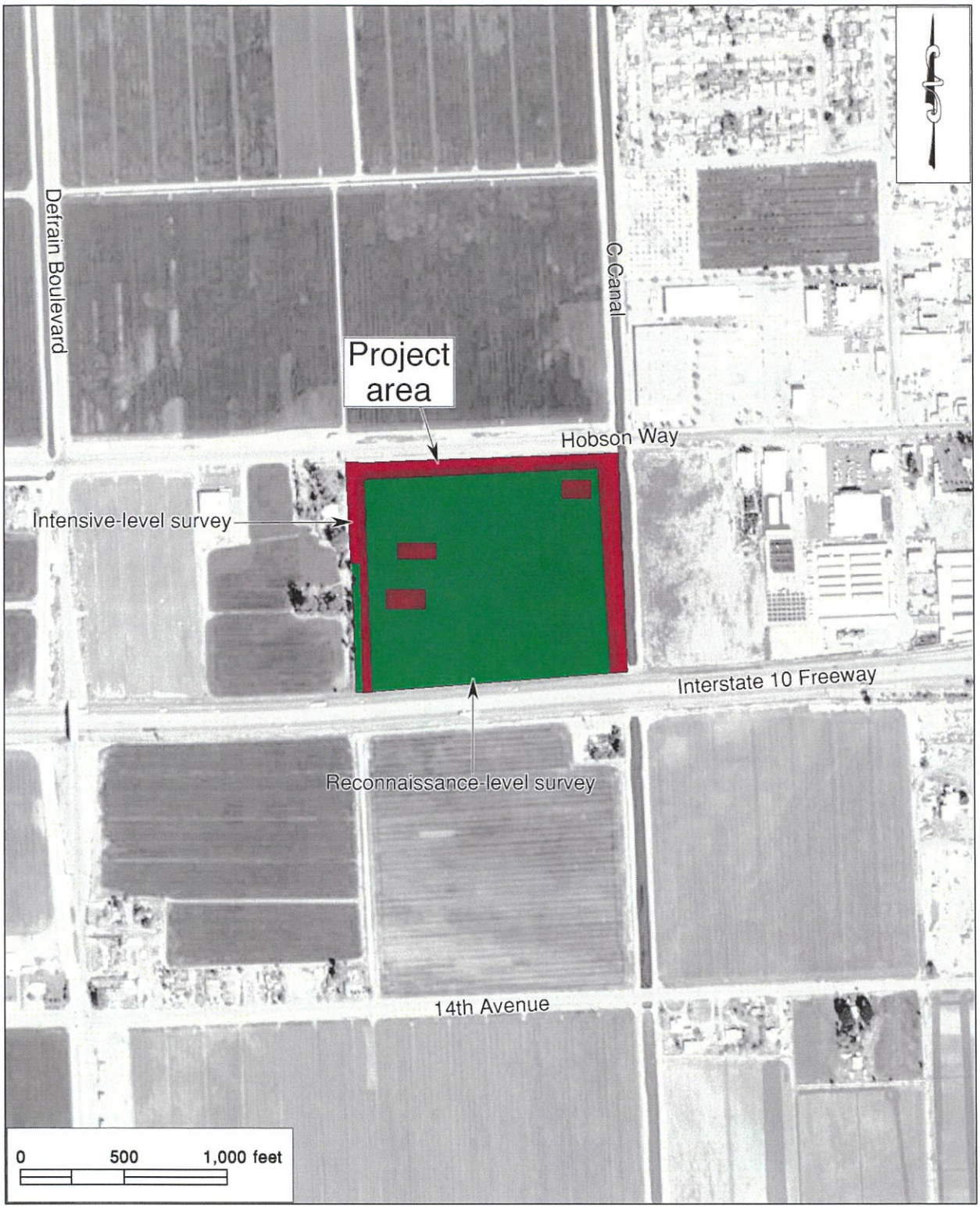


Figure 5. Levels of field survey coverage.

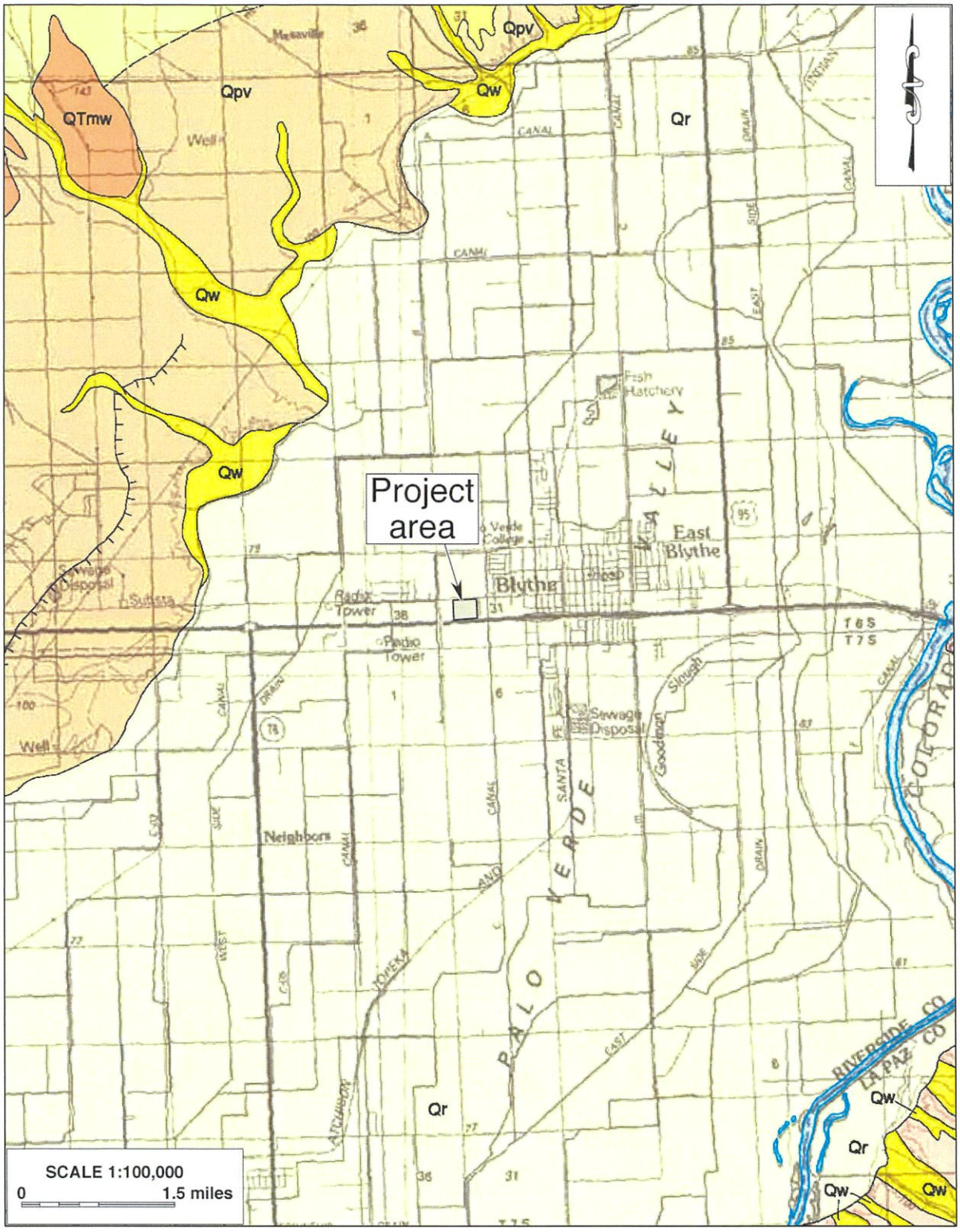


Figure 6. Geologic map of the project vicinity. (Source: Stone 2006)

> Lands for which previous field surveys and documentation demonstrate as having a low potential for containing significant paleontological resources subject to adverse impacts. The mapping of low potential was determined based on actual documentation and was not generalized to cover all areas of a particular rock unit on a geologic map.
>
> It must be noted that surface geology, such as soils, are not always indicative of subsurface geology or the potential for paleontological resources. For instance, an area mapped as soil type "Qal" may actually be a thin surficial layer of non-fossiliferous sediments which covers fossil-rich Pleistocene sediments. Also, an area mapped as granite may be covered by a Pleistocene soil horizon that contains fossils. Thus, actual sensitivity must be ultimately determined by both a records search and a field inspection by a paleontologist. (County of Riverside 2015:4.9-11)

FIELD SURVEY

Throughout the course of the field survey, no surface manifestation of any paleontological remains was observed within the project area. However, in light of the extensive ground disturbance that has occurred on the property in the past, an accurate assessment of the paleontological sensitivity of the native soils is difficult to ascertain. Some freshwater clam and mussel shells were observed embedded in the levee along C Canal, which are virtually ubiquitous in such setting.

CONCLUSION AND RECOMMENDATIONS

CEQA guidelines (Title 14 CCR App. G, Sec. V(c)) require that public agencies in the State of California determine whether a proposed project would "directly or indirectly destroy a unique paleontological resource" during the environmental review process. The present study, conducted in compliance with this provision, is designed to identify any significant, non-renewable paleontological resources that may exist within or adjacent to the project area, and to assess the possibility for such resources to be encountered in future excavation and construction activities.

In summary of the research results presented above, no paleontological localities were previously identified in the project area, and no surface manifestation of any fossil remains were observed during the field survey. Geological sources consulted during this study disagree on the prevailing sediments in the project area. However, the potential for the presence of Pleistocene-age alluvium, which generally has a high potential to contain significant, nonrenewable fossil remains, at unknown depths below surface is clear. Due to past ground disturbance, an accurate assessment of the paleontological sensitivity of the native soils was difficult to ascertain.

Based on these findings, CRM TECH concludes that the proposed project's potential to impact significant, nonrenewable paleontological resources appears to be low in the disturbed surface soils but high in the undisturbed native soils below surface. Therefore, CRM TECH recommends that a paleontological resource impact mitigation program be developed and implemented during the project to prevent such impacts or reduce them to a level less than significant. The mitigation program should be developed in accordance with the provisions of CEQA (Scott and Springer 2003) as well as the proposed guidelines of the Society of Vertebrate Paleontology (2010), and should include but not be limited to the following components:

- All earth-moving operations associated with the project reaching beyond the depth of three feet should be monitored by a qualified paleontological monitor. The monitor should be prepared to quickly salvage fossils as they are unearthed to avoid construction delays and should collect samples of sediments that are likely to contain fossil remains of small vertebrates or invertebrates. However, the monitor must have the power to temporarily halt or divert grading equipment to allow for the removal of abundant or large specimens.
- Collected samples of sediment should be processed to recover small fossils, and all recovered specimens should be identified and curated at a repository with permanent retrievable storage.
- A report of findings, including an itemized inventory of recovered specimens, should be prepared upon completion of the procedures outlined above. The report should include a discussion of the significance of the paleontological findings, if any. The report and the inventory, when submitted to the City of Blythe, would signify completion of the program to mitigate potential impacts on paleontological resources.

Under this condition, CRM TECH further recommends that the proposed project may be cleared to proceed in compliance with CEQA provisions on paleontological resources.

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APPENDIX 1

PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR
Michael Hogan, Ph.D., RPA*

Education

1991	Ph.D., Anthropology, University of California, Riverside.
1981	B.S., Anthropology, University of California, Riverside; with honors.
1980-1981	Education Abroad Program, Lima, Peru.
2002	Section 106—National Historic Preservation Act: Federal Law at the Local Level. UCLA Extension Course #888.
2002	"Recognizing Historic Artifacts," workshop presented by Richard Norwood, Historical Archaeologist.
2002	"Wending Your Way through the Regulatory Maze," symposium presented by the Association of Environmental Professionals.
1992	"Southern California Ceramics Workshop," presented by Jerry Schaefer.
1992	"Historic Artifact Workshop," presented by Anne Duffield-Stoll.

Professional Experience

2002-	Principal Investigator, CRM TECH, Riverside/Colton, California.
1999-2002	Project Archaeologist/Field Director, CRM TECH, Riverside.
1996-1998	Project Director and Ethnographer, Statistical Research, Inc., Redlands.
1992-1998	Assistant Research Anthropologist, University of California, Riverside
1992-1995	Project Director, Archaeological Research Unit, U. C. Riverside.
1993-1994	Adjunct Professor, Riverside Community College, Mt. San Jacinto College, U.C. Riverside, Chapman University, and San Bernardino Valley College.
1991-1992	Crew Chief, Archaeological Research Unit, U. C. Riverside.
1984-1998	Archaeological Technician, Field Director, and Project Director for various southern California cultural resources management firms.

Research Interests

Cultural Resource Management, Southern Californian Archaeology, Settlement and Exchange Patterns, Specialization and Stratification, Culture Change, Native American Culture, Cultural Diversity.

Cultural Resources Management Reports

Author and co-author of, contributor to, and principal investigator for numerous cultural resources management study reports since 1986.

Memberships

* Register of Professional Archaeologists; Society for American Archaeology; Society for California Archaeology; Pacific Coast Archaeological Society; Coachella Valley Archaeological Society.

PRINCIPAL PALEONTOLOGIST
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Education

1995	M.S., Geology, University of California, Los Angeles.
1991	Pasadena City College, Pasadena, California.
1985	B.A., Archaeology, Paleontology, Ancient Folklore, and Art History, University of Southern Mississippi, Hattiesburg.

Professional Experience:

2020-	Principal Paleontologist, CRM TECH, Colton, California.
2014-	Instructor of Earth Science, History of Life, Ecology, and Evolutionary Biology, Columbia College Hollywood, Reseda, California.
2013, 2015	Volunteer, excavation of a camarasaur and a diplodocid in southern Utah, Natural History Museum of Los Angeles County, California.
1993-2014	Consultant, Getty Conservation Institute, Brentwood, California.

- Geological Consultant on the Renaissance Bronze Project, characterizing constituents of bronze core material;
- Paleontological Consultant for Antiquities/Conservation, identifying the foraminifera and mineral constituents of a limestone torso of Aphrodite;
- Scientific Consultant on the Brentwood Site Building Project, testing building materials for their suitability in the museum galleries.

1999-2001	Archaeological and Paleontological Monitor, Michael Brandman Associates, Irvine, California.
1997	Department of Archaeology, University of California, Los Angeles.
1994	Scientific Illustrator and Teaching Assistant, Department of Earth and Space Sciences and Department of Biological Sciences, University of California, Los Angeles.

Memberships

AAPS (Association of Applied Paleontological Sciences), USA; CSEOL (Center for the Study of Evolution and the Origin of Life), Department of Earth Sciences, University of California, Los Angeles.

Publications and Reports

Author, co-author, and contributor on numerous paleontological publications and paleontological resource management reports.

PROJECT PALEONTOLOGIST/REPORT WRITER
Ben Kerridge, M.A.

Education

2019-2020	Physical Geology, California Geology, and Historical Geology Coursework, Fullerton College, Fullerton, California.
2014	Archaeological Field School, Institute for Field Research, Kephallenia, Greece.
2010	M.A., Anthropology, California State University, Fullerton.
2009	Project Management Training, Project Management Institute/CH2M HILL, Santa Ana, California.
2004	B.A., Anthropology, California State University, Fullerton.

Professional Experience

2015-	Project Archaeologist/Paleontologist/Report Writer, CRM TECH, Colton, California.
2015	Teaching Assistant, Institute for Field Research, Kephallenia, Greece.
2009-2014	Publications Delivery Manager, CH2M HILL, Santa Ana, California.
2010-	Naturalist, Newport Bay Conservancy, Newport Beach, California.
2006-2009	Technical Publishing Specialist, CH2M HILL, Santa Ana, California.

PALEONTOLOGICAL SURVEYOR/FIELD DIRECTOR
Daniel Ballester, M.S.

Education

2013	M.S., Geographic Information System (GIS), University of Redlands, California.
1998	B.A., Anthropology, California State University, San Bernardino.
1997	Archaeological Field School, University of Las Vegas and University of California, Riverside.
1994	University of Puerto Rico, Rio Piedras, Puerto Rico.

- Cross-trained in paleontological field procedures and identifications by CRM TECH Geologist/Paleontologist Harry M. Quinn.

Professional Experience

2002-	Field Director/GIS Specialist, CRM TECH, Riverside/Colton, California.
1999-2002	Project Paleontologist/Archaeologist, CRM TECH, Riverside, California.
1998-1999	Field Crew, K.E.A. Environmental, San Diego, California.
1998	Field Crew, A.S.M. Affiliates, Encinitas, California.
1998	Field Crew, Archaeological Research Unit, University of California, Riverside.

APPENDIX 2

RECORDS SEARCH RESULTS

WESTERN SCIENCE CENTER

CRM TECH
Nina Gallardo
1016 E. Cooley Drive
Ste. A/B
Colton, CA 92324

July 7, 2021

Dear Ms. Gallardo,

This letter presents the results of a record search conducted for CRM TECH Cannabis Cultivation Project on Assessor's Parcel Number 836-100-007, in Blythe, Riverside County, California. The project site is located on approximately 34 acres along the south side of W. Hobson Way (Highway 60), west of S. Carlton Avenue, and immediately north of Interstate 10, in Section 31 of Township 6-7 South and Range 23 East on the Blythe, CA USGS 7.5 minute topographic quadrangle.

The geologic unit underlying the project area is mapped entirely as Quaternary alluvium dating to the Pliocene-Holocene. Quaternary alluvial units are considered to be of high paleontological sensitivity. The Western Science Center does not have localities within the project area, but does have numerous localities within similarly mapped alluvial sediments throughout the region. Pleistocene alluvial deposits in southern California are well documented and known to contain abundant fossil resources including those associated with Columbian mammoth (*Mammuthus columbi*), Pacific mastodon (*Mammut pacificus*), sabertooth cat (*Smilodon fatalis*), ancient horse (*Equus* sp.), and many other Pleistocene megafauna.

Any fossils recovered from the Cannabis Cultivation Project area would be scientifically significant. Excavation activity associated with development of the area has the potential to impact the paleontologically sensitive Quaternary alluvial units and it is the recommendation of the Western Science Center that a paleontological resource mitigation plan be put in place to monitor, salvage, and curate any recovered fossils associated with the current study area.

If you have any questions, or would like further information, please feel free to contact me at amcdonald@westerncentermuseum.org

Sincerely,

Andrew McDonald
Curator

2345 Searl Parkway ♦ Hemet, CA 92543 ♦ phone 951.791.0033 ♦ fax 951.791.0032 ♦ WesternScienceCenter.org

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix I

Greenhouse Gas Analysis

May 2022

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Edelweiss Sustainable Farms Project

GREENHOUSE GAS ANALYSIS

CITY OF BLYTHE

PREPARED BY:

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APRIL 29, 2022

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LIST OF ABBREVIATED TERMS

(1)	Reference
AB	Assembly Bill
CARB	California Air Resources Board
CAA	Federal Clean Air Act
CAFE	Corporate Average Fuel Economy
CalEEMod	California Emissions Estimator Model
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resource Board
CEC	California Energy Commission
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CFC	Chlorofluorocarbons
CFR	Code of Federal Regulations
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CPUC	California Public Utilities Commission
EPA	Environmental Protection Agency
GCC	Global Climate Change
GHGA	Greenhouse Gas Analysis
GWP	Global Warming Potential
HFC	Hydrofluorocarbons
MDAQMD	Mojave Desert Air Quality Management District
MMT CO_2e	Million Metric Ton of Carbon Dioxide Equivalent
MT CO_2e	Metric Ton of Carbon Dioxide Equivalent
N_20	Nitrogen Dioxide
NHTSA	National Highway Traffic Safety Administration
NIOSH	National Institute for Occupational Safety and Health
NOx	Oxides of Nitrogen
PFC	Perfluorocarbons
PM_{10}	Particulate Matter 10 microns in diameter or less
$PM_{2.5}$	Particulate Matter 2.5 microns in diameter or less
PPM	Parts Per Million
SB	Senate Bill
WRI	The World Resources Institute

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EXECUTIVE SUMMARY

ES.1 SUMMARY OF FINDINGS

The results of this *Edelweiss Sustainable Farms Project Greenhouse Gas Analysis* is summarized below based on the significance criteria in Section 3 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (1). Table ES-1 shows the findings of significance for potential greenhouse gas impacts under CEQA.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
GHG Impact #1: The Project would not generate direct or indirect greenhouse gas emission that would result in a significant impact on the environment.	3.7	*Less Than Significant*	*n/a*
GHG Impact #2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.	3.7	*Less Than Significant*	*n/a*

ES.2 REGULATORY REQUIREMENTS

The Project would be required to comply with all mandates imposed by the State of California and the Mojave Desert Air Quality Management District (MDAQMD). Those that are applicable to the Project and that would assist in the reduction of greenhouse gas (GHG) emissions are:

- Global Warming Solutions Act of 2006 (AB 32) (2).
- Regional GHG Emissions Reduction Targets/Sustainable Communities Strategies (SB 375) (3).
- Pavley Fuel Efficiency Standards (AB 1493). Establishes fuel efficiency ratings for new vehicles (4).
- Title 24 California Code of Regulations (California Building Code). Establishes energy efficiency requirements for new construction (5).
- Title 20 California Code of Regulations (Appliance Energy Efficiency Standards). Establishes energy efficiency requirements for appliances (6).
- Title 17 California Code of Regulations (Low Carbon Fuel Standard). Requires carbon content of fuel sold in California to be 10% less by 2020 (7).
- California Water Conservation in Landscaping Act of 2006 (AB 1881). Requires local agencies to adopt the Department of Water Resources updated Water Efficient Landscape Ordinance or equivalent by January 1, 2010 to ensure efficient landscapes in new development and reduced water waste in existing landscapes (8).

- Statewide Retail Provider Emissions Performance Standards (SB 1368). Requires energy generators to achieve performance standards for GHG emissions (9).
- Renewable Portfolio Standards (SB 1078). Requires electric corporations to increase the amount of energy obtained from eligible renewable energy resources to 20 percent (%) by 2010 and 33% by 2020 (10).
- Senate Bill 32 (SB 32). Requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15 (11).

1 INTRODUCTION

This report presents the results of the greenhouse gas analysis (GHGA) prepared by Urban Crossroads, Inc., for the Edelweiss Sustainable Farms Project (Project).

The purpose of this GHGA is to evaluate Project-related construction and operational emissions and determine the level of greenhouse gas (GHG) impacts as a result of constructing and operating the proposed Project.

1.1 SITE LOCATION

The proposed Edelweiss Sustainable Farms Project site is located south of Hobsonway and east of Defrain Boulevard in the City of Blythe, as show in Exhibit 1-A

1.2 PROJECT DESCRIPTION

The proposed Project consists of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. Approximately 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration office building uses. The Project is anticipated to open in 2023.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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2 CLIMATE CHANGE SETTING

2.1 INTRODUCTION TO GLOBAL CLIMATE CHANGE (GCC)

GCC is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. The majority of scientists believe that the climate shift taking place since the Industrial Revolution is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of GHGs in the earth's atmosphere, including carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), and fluorinated gases. The majority of scientists believe that this increased rate of climate change is the result of GHGs resulting from human activity and industrialization over the past 200 years.

An individual project like the proposed Project evaluated in this GHGA cannot generate enough GHG emissions to affect a discernible change in global climate. However, the proposed Project may participate in the potential for GCC by its incremental contribution of GHGs combined with the cumulative increase of all other sources of GHGs, which when taken together constitute potential influences on GCC. Because these changes may have serious environmental consequences, Section 3.0 will evaluate the potential for the proposed Project to have a significant effect upon the environment as a result of its potential contribution to the greenhouse effect.

2.2 GLOBAL CLIMATE CHANGE DEFINED

GCC refers to the change in average meteorological conditions on the earth with respect to temperature, wind patterns, precipitation and storms. Global temperatures are regulated by naturally occurring atmospheric gases such as water vapor, CO_2, N_2O, CH_4, hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF_6). These particular gases are important due to their residence time (duration they stay) in the atmosphere, which ranges from 10 years to more than 100 years. These gases allow solar radiation into the earth's atmosphere, but prevent radioactive heat from escaping, thus warming the earth's atmosphere. GCC can occur naturally as it has in the past with the previous ice ages.

Gases that trap heat in the atmosphere are often referred to as GHGs. GHGs are released into the atmosphere by both natural and anthropogenic activity. Without the natural GHG effect, the earth's average temperature would be approximately 61 degrees Fahrenheit (°F) cooler than it is currently. The cumulative accumulation of these gases in the earth's atmosphere is considered to be the cause for the observed increase in the earth's temperature.

2.3 GHGS

2.3.1 GHGS AND HEALTH EFFECTS

GHGs trap heat in the atmosphere, creating a GHG effect that results in global warming and climate change. Many gases demonstrate these properties and as discussed in Table 2-1. For the purposes of this analysis, emissions of CO_2, CH_4, and N_2O were evaluated because these gases are the primary contributors to GCC from development projects. Although there are other

substances such as fluorinated gases that also contribute to GCC, these fluorinated gases were not evaluated as their sources are not well-defined and do not contain accepted emissions factors or methodology to accurately calculate these gases.

TABLE 2-1: GREENHOUSE GASES

Greenhouse Gases	Description	Sources	Health Effects
Water	Water is the most abundant, important, and variable GHG in the atmosphere. Water vapor is not considered a pollutant; in the atmosphere it maintains a climate necessary for life. Changes in its concentration are primarily considered to be a result of climate feedbacks related to the warming of the atmosphere rather than a direct result of industrialization. Climate feedback is an indirect, or secondary, change, either positive or negative, that occurs within the climate system in response to a forcing mechanism. The feedback loop in which water is involved is critically important to projecting future climate change. As the temperature of the atmosphere rises, more water is evaporated from ground storage (rivers, oceans, reservoirs, soil). Because the air is warmer, the relative humidity can be higher (in essence, the air is able to 'hold' more water when it is warmer), leading to more water vapor in the atmosphere. As a GHG, the higher concentration of water vapor is then able to absorb more thermal indirect energy radiated from the Earth, thus further warming the atmosphere. The warmer atmosphere can then hold more water vapor and so on and so on. This is referred to as a "positive feedback loop." The extent to which this positive feedback loop will continue is	The main source of water vapor is evaporation from the oceans (approximately 85%). Other sources include evaporation from other water bodies, sublimation (change from solid to gas) from sea ice and snow, and transpiration from plant leaves.	There are no known direct health effects related to water vapor at this time. It should be noted however that when some pollutants react with water vapor, the reaction forms a transport mechanism for some of these pollutants to enter the human body through water vapor.

Greenhouse Gases	Description	Sources	Health Effects
	unknown as there are also dynamics that hold the positive feedback loop in check. As an example, when water vapor increases in the atmosphere, more of it will eventually condense into clouds, which are more able to reflect incoming solar radiation (thus allowing less energy to reach the earth's surface and heat it up) (12).		
CO_2	CO_2 is an odorless and colorless GHG. Since the industrial revolution began in the mid-1700s, the sort of human activity that increases GHG emissions has increased dramatically in scale and distribution. Data from the past 50 years suggests a corollary increase in levels and concentrations. As an example, prior to the industrial revolution, CO_2 concentrations were fairly stable at 280 parts per million (ppm). Today, they are around 370 ppm, an increase of more than 30%. Left unchecked, the concentration of CO_2 in the atmosphere is projected to increase to a minimum of 540 ppm by 2100 as a direct result of anthropogenic sources (13).	CO_2 is emitted from natural and manmade sources. Natural sources include: the decomposition of dead organic matter; respiration of bacteria, plants, animals and fungus; evaporation from oceans; and volcanic outgassing. Anthropogenic sources include: the burning of coal, oil, natural gas, and wood. CO_2 is naturally removed from the air by photosynthesis, dissolution into ocean water, transfer to soils and ice caps, and chemical weathering of carbonate rocks (14).	Outdoor levels of CO_2 are not high enough to result in negative health effects. According to the National Institute for Occupational Safety and Health (NIOSH) high concentrations of CO_2 can result in health effects such as: headaches, dizziness, restlessness, difficulty breathing, sweating, increased heart rate, increased cardiac output, increased blood pressure, coma, asphyxia, and/or convulsions. It should be noted that current concentrations of CO_2 in the earth's atmosphere are estimated to be approximately 370 ppm, the actual reference exposure level (level at which adverse health effects typically occur) is at exposure levels of 5,000 ppm averaged over 10 hours in a 40-hour workweek and short-term reference exposure levels of 30,000 ppm averaged over a 15 minute period (15).

Greenhouse Gases	Description	Sources	Health Effects
CH_4	CH_4 is an extremely effective absorber of radiation, although its atmospheric concentration is less than CO_2 and its lifetime in the atmosphere is brief (10-12 years), compared to other GHGs.	CH_4 has both natural and anthropogenic sources. It is released as part of the biological processes in low oxygen environments, such as in swamplands or in rice production (at the roots of the plants). Over the last 50 years, human activities such as growing rice, raising cattle, using natural gas, and mining coal have added to the atmospheric concentration of CH_4. Other anthropocentric sources include fossil-fuel combustion and biomass burning (16).	CH_4 is extremely reactive with oxidizers, halogens, and other halogen-containing compounds. Exposure to high levels of CH_4 can cause asphyxiation, loss of consciousness, headache and dizziness, nausea and vomiting, weakness, loss of coordination, and an increased breathing rate.
N_2O	N_2O, also known as laughing gas, is a colorless GHG. Concentrations of N_2O also began to rise at the beginning of the industrial revolution. In 1998, the global concentration was 314 parts per billion (ppb).	N_2O is produced by microbial processes in soil and water, including those reactions which occur in fertilizer containing nitrogen. In addition to agricultural sources, some industrial processes (fossil fuel-fired power plants, nylon production, nitric acid production, and vehicle emissions) also contribute to its atmospheric load. It is used as an aerosol spray propellant, i.e., in whipped cream bottles. It is also	N_2O can cause dizziness, euphoria, and sometimes slight hallucinations. In small doses, it is considered harmless. However, in some cases, heavy and extended use can cause Olney's Lesions (brain damage) (17).

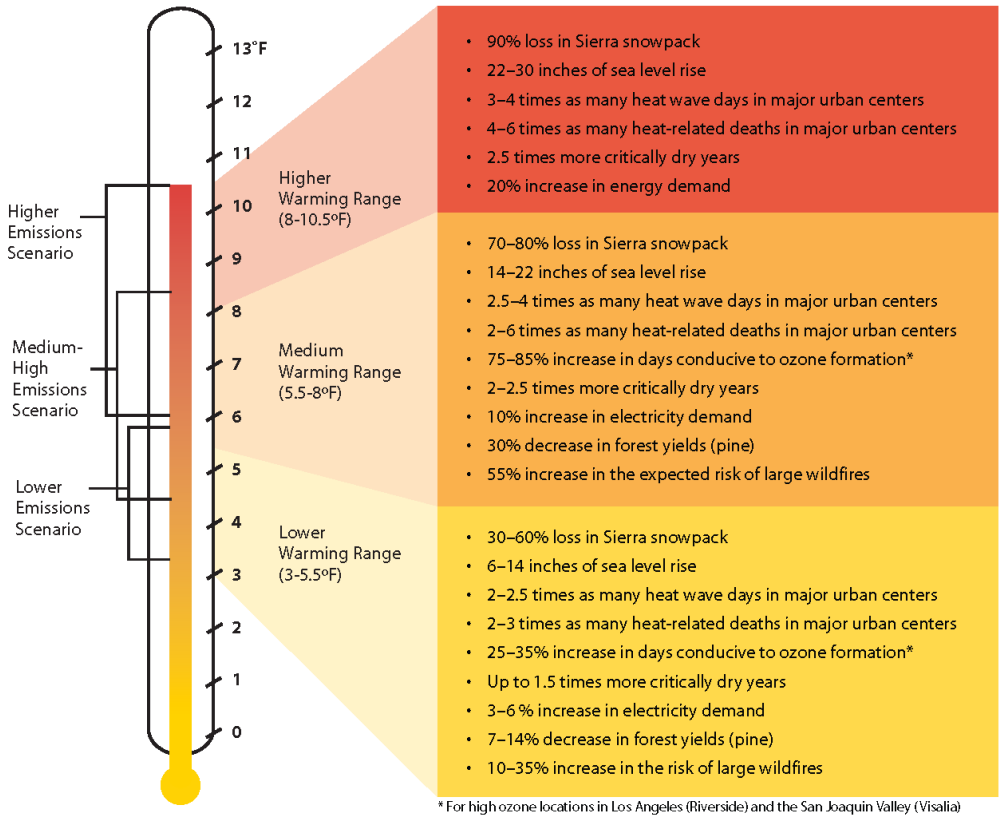
Greenhouse Gases	Description	Sources	Health Effects
		used in potato chip bags to keep chips fresh. It is used in rocket engines and in race cars. N_2O can be transported into the stratosphere, be deposited on the earth's surface, and be converted to other compounds by chemical reaction (17).	
Chlorofluorocarbons (CFCs)	CFCs are gases formed synthetically by replacing all hydrogen atoms in CH_4 or ethane (C_2H_6) with chlorine and/or fluorine atoms. CFCs are nontoxic, nonflammable, insoluble and chemically unreactive in the troposphere (the level of air at the earth's surface).	CFCs have no natural source but were first synthesized in 1928. They were used for refrigerants, aerosol propellants and cleaning solvents. Due to the discovery that they are able to destroy stratospheric ozone, a global effort to halt their production was undertaken and was extremely successful, so much so that levels of the major CFCs are now remaining steady or declining. However, their long atmospheric lifetimes mean that some of the CFCs will remain in the atmosphere for over 100 years (18).	In confined indoor locations, working with CFC-113 or other CFCs is thought to result in death by cardiac arrhythmia (heart frequency too high or too low) or asphyxiation.

Greenhouse Gases	Description	Sources	Health Effects
HFCs	HFCs are synthetic, man-made chemicals that are used as a substitute for CFCs. Out of all the GHGs, they are one of three groups with the highest global warming potential (GWP). The HFCs with the largest measured atmospheric abundances are (in order), fluoroform (CHF_3), 1,1,1,2-tetrafluoroethane (CH_2FCF), and 1,1-difluoroethane (CH_3CF_2). Prior to 1990, the only significant emissions were of CHF_3. CH_2FCF emissions are increasing due to its use as a refrigerant.	HFCs are manmade for applications such as automobile air conditioners and refrigerants.	No health effects are known to result from exposure to HFCs.
PFCs	PFCs have stable molecular structures and do not break down through chemical processes in the lower atmosphere. High-energy ultraviolet rays, which occur about 60 kilometers above earth's surface, are able to destroy the compounds. Because of this, PFCs have very long lifetimes, between 10,000 and 50,000 years. Two common PFCs are tetrafluoromethane (CF_4) and hexafluoroethane (C_2F_6). The EPA estimates that concentrations of CF_4 in the atmosphere are over 70 parts per trillion (ppt).	The two main sources of PFCs are primary aluminum production and semiconductor manufacture.	No health effects are known to result from exposure to PFCs.
SF_6	SF_6 is an inorganic, odorless, colorless, nontoxic, nonflammable gas. It also has the highest GWP of any gas evaluated (23,900) (19). The EPA indicates that concentrations in the 1990s were about 4 ppt.	SF_6 is used for insulation in electric power transmission and distribution equipment, in the magnesium industry, in semiconductor manufacturing, and as a tracer gas for leak detection.	In high concentrations in confined areas, the gas presents the hazard of suffocation because it displaces the oxygen needed for breathing.

Greenhouse Gases	Description	Sources	Health Effects
Nitrogen Trifluoride (NF_3)	NF_3 is a colorless gas with a distinctly moldy odor. The World Resources Institute (WRI) indicates that NF_3 has a 100-year GWP of 17,200 (20).	NF_3 is used in industrial processes and is produced in the manufacturing of semiconductors, Liquid Crystal Display panels, types of solar panels, and chemical lasers.	Long-term or repeated exposure may affect the liver and kidneys and may cause fluorosis (21).

The potential health effects related directly to the emissions of CO_2, CH_4, and N_2O as they relate to development projects such as the proposed Project are still being debated in the scientific community. Their cumulative effects to GCC have the potential to cause adverse effects to human health. Increases in Earth's ambient temperatures would result in more intense heat waves, causing more heat-related deaths. Scientists also purport that higher ambient temperatures would increase disease survival rates and result in more widespread disease. Climate change will likely cause shifts in weather patterns, potentially resulting in devastating droughts and food shortages in some areas (22). Exhibit 2-A presents the potential impacts of global warming (23).

EXHIBIT 2-A: SUMMARY OF PROJECTED GLOBAL WARMING IMPACT, 2070-2099 (AS COMPARED WITH 1961-1990)



Source: Barbara H. Allen-Diaz. "Climate change affects us all." *University of California, Agriculture and Natural Resources*, 2009.

2.4 GLOBAL WARMING POTENTIAL

GHGs have varying GWP values. GWP of a GHG indicates the amount of warming a gas causes over a given period of time and represents the potential of a gas to trap heat in the atmosphere. CO_2 is utilized as the reference gas for GWP, and thus has a GWP of 1. CO_2 equivalent (CO_2e) is a term used for describing the difference GHGs in a common unit. CO_2e signifies the amount of CO_2 which would have the equivalent GWP.

The atmospheric lifetime and GWP of selected GHGs are summarized at Table 2-2. As shown in the table below, GWP for each assessment report has changed based the current understanding of the interactions of different chemicals in the atmosphere (24).

TABLE 2-2: GWP AND ATMOSPHERIC LIFETIME OF SELECT GHGS

Gas	Atmospheric Lifetime (years)	GWP (100-year time horizon)		
		2nd Assessment Report	4th Assessment Report	5th Assessment Report
CO_2	See*	1	1	1
CH_4	12 .4	21	25	28
N_2O	121	310	298	265
HFC-23	222	11,700	14,800	12,400
HFC-134a	13.4	1,300	1,430	1,300
HFC-152a	1.5	140	124	138
SF_6	3,200	23,900	22,800	23,500

Source: International Panel on Climate Change, Library. https://www.ipcc.ch/library/

2.6 GHG EMISSIONS INVENTORIES

2.6.2 UNITED STATES

According to the United States (U.S.) Environmental Protection Agency (EPA), in 2019, GHG emissions in the U.S. totaled 6,558 million metric tons of carbon dioxide equivalents (MT CO_2e), or 5,769 million MT CO_2e after accounting for sequestration from the land sector. Emissions decreased from 2018 to 2019 by 1.7% (after accounting for sequestration from the land sector). This decrease was driven largely by a decrease in emissions from fossil fuel combustion resulting from a decrease in total energy use in 2019 compared to 2018 and a continued shift from coal to natural gas and renewables in the electric power sector. 2019 GHG emissions were 13% below 2005 levels (25).

2.6.3 STATE OF CALIFORNIA

California has significantly slowed the rate of growth of GHG emissions due to the implementation of energy efficiency programs as well as adoption of strict emission controls but is still a substantial contributor to the U.S. emissions inventory total. The California Air Resource Board (CARB) compiles GHG inventories for the State of California. Based upon the 2021 GHG

inventory data (i.e., the latest year for which data are available) for the 2000-2019 GHG emissions period, California emitted an average 418.2 million MT CO_2e per year (/yr) (26). In 2016, statewide GHG emissions dropped below the 2020 GHG Limit and have remained below the Limit since that time.

2.7 REGULATORY SETTING

2.7.2 FEDERAL

Prior to the last decade, there have been no concrete federal regulations of GHGs or major planning for climate change adaptation. The following are actions regarding the federal government, GHGs, and fuel efficiency.

GHG ENDANGERMENT

In *Massachusetts v. Environmental Protection Agency* 549 U.S. 497 (2007), decided on April 2, 2007, the United States Supreme Court (U.S. Court) found that four GHGs, including CO_2, are air pollutants subject to regulation under Section 202(a)(1) of the Clean Air Act (CAA). The Court held that the EPA Administrator must determine whether emissions of GHGs from new motor vehicles cause or contribute to air pollution, which may reasonably be anticipated to endanger public health or welfare, or whether the science is too uncertain to make a reasoned decision. On December 7, 2009, the EPA Administrator signed two distinct findings regarding GHGs under section 202(a) of the CAA:

- Endangerment Finding: The Administrator finds that the current and projected concentrations of the six key well-mixed GHGs— CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6—in the atmosphere threaten the public health and welfare of current and future generations.
- Cause or Contribute Finding: The Administrator finds that the combined emissions of these well-mixed GHGs from new motor vehicles and new motor vehicle engines contribute to the GHG pollution, which threatens public health and welfare.

These findings do not impose requirements on industry or other entities. However, this was a prerequisite for implementing GHG emissions standards for vehicles, as discussed in the section "Clean Vehicles" below. After a lengthy legal challenge, the U.S. Court declined to review an Appeals Court ruling that upheld the EPA Administrator's findings (27).

CLEAN VEHICLES

Congress first passed the Corporate Average Fuel Economy law in 1975 to increase the fuel economy of cars and light duty trucks. The law has become more stringent over time. On May 19, 2009, President Obama put in motion a new national policy to increase fuel economy for all new cars and trucks sold in the U.S. On April 1, 2010, the EPA and the Department of Transportation's National Highway Traffic Safety Administration (NHTSA) announced a joint final rule establishing a national program that would reduce GHG emissions and improve fuel economy for new cars and trucks sold in the U.S.

The first phase of the national program applies to passenger cars, light-duty trucks, and medium-duty (MD) passenger vehicles, covering model years 2012 through 2016. They require these vehicles to meet an estimated combined average emissions level of 250 grams of CO_2 per mile, equivalent to 35.5 miles per gallon (mpg) if the automobile industry were to meet this CO_2 level solely through fuel economy improvements. Together, these standards would cut CO_2 emissions by an estimated 960 million metric tons and 1.8 billion barrels of oil over the lifetime of the vehicles sold under the program (model years 2012–2016). The EPA and the NHTSA issued final rules on a second-phase joint rulemaking establishing national standards for light-duty vehicles for model years 2017 through 2025 in August 2012. The new standards for model years 2017 through 2025 apply to passenger cars, light-duty trucks, and MD passenger vehicles. The final standards are projected to result in an average industry fleetwide level of 163 grams/mile of CO_2 in model year 2025, which is equivalent to 54.5 mpg if achieved exclusively through fuel economy improvements.

The EPA and the U.S. Department of Transportation issued final rules for the first national standards to reduce GHG emissions and improve fuel efficiency of heavy-duty trucks and buses on September 15, 2011, effective November 14, 2011. For combination tractors, the agencies are proposing engine and vehicle standards that begin in the 2014 model year and achieve up to a 20% reduction in CO_2 emissions and fuel consumption by the 2018 model year. For HDT and vans, the agencies are proposing separate gasoline and diesel truck standards, which phase in starting in the 2014 model year and achieve up to a 10% reduction for gasoline vehicles and a 15% reduction for diesel vehicles by the 2018 model year (12 and 17% respectively if accounting for air conditioning leakage). Lastly, for vocational vehicles, the engine and vehicle standards would achieve up to a 10% reduction in fuel consumption and CO_2 emissions from the 2014 to 2018 model years.

On April 2, 2018, the EPA signed the Mid-term Evaluation Final Determination, which declared that the MY 2022-2025 GHG standards are not appropriate and should be revised (28). This Final Determination serves to initiate a notice to further consider appropriate standards for MY 2022-2025 light-duty vehicles. On August 2,2018, the NHTSA in conjunction with the EPA, released a notice of proposed rulemaking, the *Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks* (SAFE Rule). The SAFE Vehicles Rule was proposed to amend exiting Corporate Average Fuel Economy (CAFE) and tailpipe CO_2 standards for passenger cars and light trucks and to establish new standards covering model years 2021 through 2026. As of March 31, 2020, the NHTSA and EPA finalized the SAFE Vehicle Rule which increased stringency of CAFE and CO_2 emissions standards by 1.5% each year through model year 2026 (29). In April, the U.S. EPA and National Highway Traffic Safety Administration's separately announced proposed rulemakings to repeal the previous administration's light-duty motor vehicle regulations that were part of the "The Safer Affordable Fuel-Efficient Vehicles Rule Part One: One National Program" (SAFE 1). The comment period has closed, but no addition actions have been taken to date.

MANDATORY REPORTING OF GHGS

The Consolidated Appropriations Act of 2008, passed in December 2007, requires the establishment of mandatory GHG reporting requirements. On September 22, 2009, the EPA

issued the Final Mandatory Reporting of GHGs Rule, which became effective January 1, 2010. The rule requires reporting of GHG emissions from large sources and suppliers in the U.S. and is intended to collect accurate and timely emissions data to inform future policy decisions. Under the rule, suppliers of fossil fuels or industrial GHGs, manufacturers of vehicles and engines, and facilities that emit 25,000 metric tons per year (MT/yr) or more of GHG emissions are required to submit annual reports to the EPA.

NEW SOURCE REVIEW

The EPA issued a final rule on May 13, 2010, that establishes thresholds for GHGs that define when permits under the New Source Review Prevention of Significant Deterioration and Title V Operating Permit programs are required for new and existing industrial facilities. This final rule "tailors" the requirements of these CAA permitting programs to limit which facilities will be required to obtain Prevention of Significant Deterioration and Title V permits. In the preamble to the revisions to the Federal Code of Regulations, the EPA states:

> *"This rulemaking is necessary because without it the Prevention of Significant Deterioration and Title V requirements would apply, as of January 2, 2011, at the 100 or 250 tons per year levels provided under the CAA, greatly increasing the number of required permits, imposing undue costs on small sources, overwhelming the resources of permitting authorities, and severely impairing the functioning of the programs. EPA is relieving these resource burdens by phasing in the applicability of these programs to GHG sources, starting with the largest GHG emitters. This rule establishes two initial steps of the phase-in. The rule also commits the agency to take certain actions on future steps addressing smaller sources but excludes certain smaller sources from Prevention of Significant Deterioration and Title V permitting for GHG emissions until at least April 30, 2016."*

The EPA estimates that facilities responsible for nearly 70% of the national GHG emissions from stationary sources will be subject to permitting requirements under this rule. This includes the nation's largest GHG emitters—power plants, refineries, and cement production facilities.

2.7.3 STATE

2.7.3.1 EXECUTIVE ORDERS RELATED TO GHG EMISSIONS

California's Executive Branch has issued several Executive Orders (EO) to state agencies to reduce GHGs. EO are not legally enforceable on local governments or the private sector. Although not regulatory and not directly applicable to development projects, they set the tone for the state and guide the actions of state agencies.

EXECUTIVE ORDER S-3-05

Executive Order (EO) S-3-05 sets the following reduction targets for GHG emissions:

- By 2010, reduce GHG emissions to 2000 levels.
- By 2020, reduce GHG emissions to 1990 levels.

- By 2050, reduce GHG emissions to 80% below 1990 levels.

The 2050 reduction goal represents what some scientists believe is necessary to reach levels that will stabilize the climate. The 2020 goal was established to be a mid-term target.

EXECUTIVE ORDER S-01-07 (LCFS)

EO S-01-07 mandates a statewide goal to reduce the carbon intensity of California's transportation fuels by at least 10% by 2020. CARB adopted the Low Carbon Fuel Standard (LCFS) to achieve the 10% reduction in GHG emissions from the transportation fuels sector by 2020.

In 2018, the CARB approved amendments to LCFS that included strengthening the carbon intensity benchmarks through 2030 in compliance with GHG emissions reduction target for 2030. The amendments included crediting opportunities to promote zero emission vehicle adoption, alternative jet fuel, carbon capture and sequestration, and advanced technologies to achieve deep decarbonization in the transportation sector (30).

EXECUTIVE ORDER S-13-08

EO S-13-08 requires the creation of the California Climate Adaptation Strategy (CCAS), the first of which was adopted. Objectives include analyzing risks of climate change in California, identifying and exploring strategies to adapt to climate change, and specifying a direction for future research.

EXECUTIVE ORDER B-30-15

EO B-30-15 establishes a California GHG reduction target of 40% below 1990 levels by 2030. The new interim statewide GHG emission reduction target is set at a level to ensure California meets its 2050 target of reducing GHG emissions 80% below 1990 levels. EO B-30-15 directs CARB to update the State Climate Change Scoping Plan to include a 2030 target in terms of millions of MT CO_2e. EO B-30-15 also requires the CCAS to be updated every three years, and for the State to continue its climate change research program, among other provisions.

EXECUTIVE ORDER B-55-18

Executive Order B-55-18 establishes a Statewide policy to achieve carbon neutrality by 2045 and maintain net negative emissions thereafter. As per Executive Order B-55-18, CARB is directed to work with relevant State agencies to develop a framework for implementation and accounting that tracks progress toward this goal and to ensure future Climate Change Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.

EXECUTIVE ORDER N-79-20

EO N-79-20 sets new statewide goals for phasing out gasoline-powered cars and trucks in California. Under EO N-79-20, 100% of in-state sales of new passenger cars and trucks are to be zero-emission by 2035; 100% of in-state sales of medium- and heavy-duty trucks and busses are to be zero-emission by 2045, where feasible; and 100% of off-road vehicles and equipment sales are to be zero-emission by 2035, where feasible. EO-79-20 directs CARB and other state agencies to develop regulations or take other steps within existing authority to achieve these goals.

2.7.3.1 LEGISLATIVE ACTIONS TO REDUCE GHGS

The State of California legislature has enacted a series of bills that constitute the most aggressive program to reduce GHGs of any state in the nation. Some legislation such as Global Warming Solutions Act of 2006 (AB32) was specifically enacted to address GHG emissions and the 2020 target identified in EO S-3-05. This section describes the major provisions of the legislation.

GLOBAL WARMING SOLUTIONS ACT OF 2006 (AB 32)

In 2006, the State Legislature enacted AB 32, the California Global Solutions Act of 2006 (HSC §38500-38599), which requires that GHGs emitted in California be reduced to 1990 levels by the year 2020 (this goal has been met since 2016[1]). GHGs as defined under AB 32 include CO_2, CH_4, N_2O, HFCs, PFCs, and SF_6. Since AB32 was enacted, a seventh chemical, nitrogen trifluoride, has also been added to the list of GHGs. CARB is the state agency charged with monitoring and regulating sources of GHGs. AB 32 states the following:

> *"Global warming poses a serious threat to the economic well-being, public health, natural resources, and the environment of California. The potential adverse impacts of global warming include the exacerbation of air quality problems, a reduction in the quality and supply of water to the state from the Sierra snowpack, a rise in sea levels resulting in the displacement of thousands of coastal businesses and residences, damage to marine ecosystems and the natural environment, and an increase in the incidences of infectious diseases, asthma, and other human health-related problems."*

GLOBAL WARMING SOLUTIONS ACT OF 2006: EMISSIONS LIMIT (SB 32)

In September 2016, the State Legislature enacted SB 32, the California Global Warming Solutions Act of 2006: Emissions Limit ((HSC §38566)). SB 32 requires the state to reduce statewide GHG emissions to 40% below 1990 levels by 2030, a reduction target that was first introduced in Executive Order B-30-15. The new legislation builds upon AB 32 and provides an intermediate goal to achieving S-3-05, which sets a statewide GHG reduction target of 80% below 1990 levels by 2050 (31).

THE SUSTAINABLE COMMUNITIES AND CLIMATE PROTECTION ACT OF 2008 (SB 375)

According to SB 375, the transportation sector is the largest contributor of GHG emissions, which emits over 40% of the total GHG emissions in California. SB 375 states, "Without improved land use and transportation policy, California will not be able to achieve the goals of AB 32." SB 375 does the following: it (1) requires metropolitan planning organizations to include sustainable community strategies in their regional transportation plans for reducing GHG emissions, (2) aligns planning for transportation and housing, and (3) creates specified incentives for the implementation of the strategies.

[1] Based upon the 2021 GHG inventory data (i.e., the latest year for which data are available) for the 2000-2019 GHG emissions period, California emitted less than the 2020 emissions target of 431 million MT CO_2e in 2016 and each year after that.

Concerning CEQA, SB 375, as codified in Public Resources Code Section 21159.28, states that CEQA findings for certain projects are not required to reference, describe, or discuss (1) growth inducing impacts, or (2) any project-specific or cumulative impacts from cars and light-duty truck trips generated by the project on global warming or the regional transportation network, if the project:

1. Is in an area with an approved sustainable communities strategy or an alternative planning strategy that the CARB accepts as achieving the GHG emission reduction targets.
2. Is consistent with that strategy (in designation, density, building intensity, and applicable policies).
3. Incorporates the mitigation measures required by an applicable prior environmental document.

VEHICULAR EMISSIONS: GREENHOUSE GASES (AB 1493)

California's AB 1493, required CARB to develop and adopt regulations that reduce GHGs emitted by passenger vehicles and light duty trucks. The standards initially phased in during the 2009 through 2016 model years. The near-term (2009–2012) standards resulted in about a 22% reduction compared with the 2002 fleet, and the mid-term (2013–2016) standards resulted in about a 30% improvement in fuel efficiency. The second phase of the implementation for AB 1493 was incorporated into Amendments to the Low-Emission Vehicle Program (LEV III) or the Advanced Clean Cars (ACC) program. The ACC program combines the control of smog-causing pollutants and GHG emissions into a single coordinated package of requirements for model years 2017 through 2025. The regulation is intended reduce GHGs from new cars by 34% from 2016 levels by 2025. The new rules are intended to clean up gasoline and diesel-powered cars, and deliver increasing numbers of zero-emission technologies, such as full battery electric vehicles (EV), newly emerging plug-in hybrid EVs, and hydrogen fuel cell vehicles. The package will also ensure adequate fueling infrastructure is available for the increasing numbers of hydrogen fuel cell vehicles planned for deployment in California.

MEDIUM- AND HEAVY-DUTY VEHICLES: COMPREHENSIVE STRATEGY (SB 44)

SB 44 requires CARB, no later than January 1, 2021, and at least every 5 years thereafter, to update CARB's 2016 Mobile Source Strategy to include a comprehensive strategy for the deployment of medium-duty and heavy-duty vehicles in the state for the purpose of bringing the state into compliance with federal ambient air quality standards and reducing motor vehicle greenhouse gas emissions from the medium-duty and heavy-duty vehicle sector. SB 44 further requires CARB to recommend reasonable and achievable goals, for reducing emissions from medium-duty and heavy-duty vehicles by 2030 and 2050, respectively.

CALIFORNIA RENEWABLES PORTFOLIO STANDARD PROGRAM: EMISSIONS OF GREENHOUSE GASES

The State Renewable Portfolio Standard (RPS) was initially established by SB 1078. SB 1078 required electricity providers to increase procurement of electricity from renewable energy sources by at least one percent per year with the goal of reaching 20 percent renewables by 2017. SB 107 accelerated the 20 percent RPS requirement from 2017 to 2010. Subsequently, SB 2 (1X) increased the RPS requirements to 33 percent renewables by 2020 with compliance period targets of 20 percent by 2013 and 25 percent by 2016. SB 350 further increases the RPS requirement to 50 percent by 2030, with interim targets of 40 percent by 2024 and 45 percent

by 2027. In addition, the bill requires that 65 percent of RPS procurement must be derived from long-term contracts (10 years or more) starting in 2021. The most recent change is from SB 100, which increases RPS requirements to 60 percent by 2030, with new interim targets of 44 percent by 2024 and 52 percent by 2027 as well. The bill further requires that all of the state's electricity come from carbon-free resources (not only RPS-eligible ones) by 2045.

MODEL WATER EFFICIENT LANDSCAPING ORDINANCE

The Model Water Efficient Landscaping Ordinance (MWELO) was enacted by AB 1881, the Water Conservation Act. AB 1881 required local agencies to adopt a local landscape ordinance at least as effective in conserving water as the Model Ordinance by January 1, 2010. EO B-29-15 directs DWR to update the MELOW through expedited regulation. The California Water Commission approved the revised MELOW became effective December 15, 2015, which requires new development projects that include landscape areas of 500 sf to implement:

- More efficient irrigation systems;
- Incentives for graywater usage;
- Improvements in on-site stormwater capture;
- Limiting the portion of landscapes that can be planted with high water use plants; and
- Includes reporting requirements for local agencies.

SB 97 AND THE CEQA GUIDELINES UPDATE

Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the OPR shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of GHG emissions or the effects of GHG emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption. (b) On or before January 1, 2010, the Resources Agency shall certify and adopt guidelines prepared and developed by the OPR pursuant to subdivision (a)." Section 21097 was also added to the Public Resources Code. It provided CEQA protection until January 1, 2010 for transportation projects funded by the Highway Safety, Traffic Reduction, Air Quality, and Port Security Bond Act of 2006 or projects funded by the Disaster Preparedness and Flood Prevention Bond Act of 2006, in stating that the failure to analyze adequately the effects of GHGs would not violate CEQA.

On December 28, 2018, the Natural Resources Agency announced the OAL approved the amendments to the CEQA Guidelines for implementing the CEQA. The CEQA Amendments provide guidance to public agencies regarding the analysis and mitigation of the effects of GHG emissions in CEQA documents. The CEQA Amendments fit within the existing CEQA framework by amending existing CEQA Guidelines to reference climate change.

Section 15064.3 was added the CEQA Guidelines and states that in determining the significance of a project's GHG emissions, the lead agency should focus its analysis on the reasonably foreseeable incremental contribution of the project's emissions to the effects of climate change. A project's incremental contribution may be cumulatively considerable even if it appears relatively small compared to statewide, national or global emissions. The agency's analysis should

consider a timeframe that is appropriate for the project. The agency's analysis also must reasonably reflect evolving scientific knowledge and state regulatory schemes. Additionally, a lead agency may use a model or methodology to estimate GHG emissions resulting from a project. The lead agency has discretion to select the model or methodology it considers most appropriate to enable decision makers to intelligently take into account the project's incremental contribution to climate change. The lead agency must support its selection of a model or methodology with substantial evidence. The lead agency should explain the limitations of the particular model or methodology selected for use (32).

2.7.3.2 CARB

CALIFORNIA CLIMATE CHANGE SCOPING PLAN

AB 32 required the California Air Resources Board (CARB or Board) to develop a Scoping Plan that describes the approach California will take to reduce GHGs to achieve the goal of reducing emissions to 1990 levels by 2020. The Scoping Plan was first approved by the Board in 2008 and must be updated at least every five years. Since 2008, there have been two updates to the Scoping Plan. Each of the Scoping Plans have included a suite of policies to help the State achieve its GHG targets, in large part leveraging existing programs whose primary goal is to reduce harmful air pollution.

The First Update to the (2013) Scoping Plan was approved CARB in 2014, and built upon the initial (2008) Scoping Plan with new strategies and recommendations. The First Update identified opportunities to leverage existing and new funds to further drive GHG emission reductions through strategic planning and targeted low carbon investments. The First Update sets the groundwork to reach long-term goals set forth in Executive Order S-3-05. The First Update highlights California's progress toward meeting the "near-term" 2020 GHG emission reduction goals defined in the initial Scoping Plan. It also evaluates how to align the State's "longer-term" GHG reduction strategies with other State policy priorities for water, waste, natural resources, clean energy, transportation, and land use.

In November 2017, CARB released the *Final 2017 Scoping Plan Update*, which identifies the State's post-2020 reduction strategy. The *Final 2017 Scoping Plan Update* reflects the 2030 target of a 40% reduction below 1990 levels, set by Executive Order B-30-15 and codified by SB 32. Key programs that the proposed Second Update builds upon include the Cap-and-Trade Regulation, the LCFS, and much cleaner cars, trucks and freight movement, utilizing cleaner, renewable energy, and strategies to reduce CH_4 emissions from agricultural and other wastes.

The *Final 2017 Scoping Plan Update* establishes a new emissions limit of 260 MMT CO_2e for the year 2030, which corresponds to a 40% decrease in 1990 levels by 2030 (33).

California's climate strategy will require contributions from all sectors of the economy, including the land base, and will include enhanced focus on zero- and near-zero-emission (ZE/NZE) vehicle technologies; continued investment in renewables, including solar roofs, wind, and other distributed generation; greater use of low carbon fuels; integrated land conservation and development strategies; coordinated efforts to reduce emissions of short-lived climate pollutants (CH_4, black carbon, and fluorinated gases); and an increased focus on integrated land use

planning to support livable, transit-connected communities and conservation of agricultural and other lands. Requirements for direct GHG reductions at refineries will further support air quality co-benefits in neighborhoods, including in disadvantaged communities historically located adjacent to these large stationary sources, as well as efforts with California's local air pollution control and air quality management districts (air districts) to tighten emission limits on a broad spectrum of industrial sources. Major elements of the *Final 2017 Scoping Plan Update* framework include:

Implementing and/or increasing the standards of the Mobile Source Strategy, which include increasing ZEV buses and trucks.

- LCFS, with an increased stringency (18% by 2030).
- Implementing SB 350, which expands the RPS to 50% RPS and doubles energy efficiency savings by 2030.
- California Sustainable Freight Action Plan, which improves freight system efficiency, utilizes near-zero emissions technology, and deployment of zero-emission vehicles (ZEV) trucks.
- Implementing the proposed Short-Lived Climate Pollutant Strategy (SLPS), which focuses on reducing CH_4 and hydroflurocarbon emissions by 40% and anthropogenic black carbon emissions by 50% by year 2030.
- Continued implementation of SB 375.
- Post-2020 Cap-and-Trade Program that includes declining caps.
- 20% reduction in GHG emissions from refineries by 2030.
- Development of a Natural and Working Lands Action Plan to secure California's land base as a net carbon sink.

Note, however, that the *Final 2017 Scoping Plan Update* acknowledges that:

> *"[a]chieving net zero increases in GHG emissions, resulting in no contribution to GHG impacts, may not be feasible or appropriate for every project, however, and the inability of a project to mitigate its GHG emissions to net zero does not imply the project results in a substantial contribution to the cumulatively significant environmental impact of climate change under CEQA."*

In addition to the statewide strategies listed above, the *Final 2017 Scoping Plan Update* also identifies local governments as essential partners in achieving the State's long-term GHG reduction goals and identifies local actions to reduce GHG emissions. As part of the recommended actions, CARB recommends that local governments achieve a community-wide goal to achieve emissions of no more than 6 metric tons of CO_2e ($MTCO_2e$) or less per capita by 2030 and 2 $MTCO_2e$ or less per capita by 2050. For CEQA projects, CARB states that lead agencies may develop evidenced-based bright-line numeric thresholds—consistent with the Scoping Plan and the State's long-term GHG goals—and projects with emissions over that amount may be required to incorporate on-site design features and mitigation measures that avoid or minimize project emissions to the degree feasible; or, a performance-based metric using a CAP or other plan to reduce GHG emissions is appropriate.

According to research conducted by the Lawrence Berkeley National Laboratory (LBNL) and supported by CARB, California, under its existing and proposed GHG reduction policies, could achieve the 2030 goals under SB 32. The research utilized a new, validated model known as the California LBNL GHG Analysis of Policies Spreadsheet (CALGAPS), which simulates GHG and criteria pollutant emissions in California from 2010 to 2050 in accordance to existing and future GHG-reducing policies. The CALGAPS model showed that by 2030, emissions could range from 211 to 428 $MTCO_2e$ per year ($MTCO_2e$/yr), indicating that "even if all modeled policies are not implemented, reductions could be sufficient to reduce emissions 40% below the 1990 level [of SB 32]." CALGAPS analyzed emissions through 2050 even though it did not generally account for policies that might be put in place after 2030. Although the research indicated that the emissions would not meet the State's 80% reduction goal by 2050, various combinations of policies could allow California's cumulative emissions to remain very low through 2050 (34) (35).

CAP-AND-TRADE PROGRAM

The Scoping Plan identifies a Cap-and-Trade Program as one of the key strategies for California to reduce GHG emissions. According to CARB, a cap-and-trade program will help put California on the path to meet its goal of achieving a 40% reduction in GHG emissions from 1990 levels by 2030. Under cap-and-trade, an overall limit on GHG emissions from capped sectors is established, and facilities subject to the cap will be able to trade permits to emit GHGs within the overall limit.

CARB adopted a California Cap-and-Trade Program pursuant to its authority under AB 32. The Cap-and-Trade Program is designed to reduce GHG emissions from regulated entities by more than 16% between 2013 and 2020, and by an additional 40% by 2030. The statewide cap for GHG emissions from the capped sectors (e.g., electricity generation, petroleum refining, and cement production) commenced in 2013 and will decline over time, achieving GHG emission reductions throughout the program's duration.

Covered entities that emit more than 25.000 $MTCO_2e$/yr must comply with the Cap-and-Trade Program. Triggering of the 25.000 $MTCO_2e$/yr "inclusion threshold" is measured against a subset of emissions reported and verified under the California Regulation for the Mandatory Reporting of GHG Emissions (Mandatory Reporting Rule or "MRR").

Under the Cap-and-Trade Program, CARB issues allowances equal to the total amount of allowable emissions over a given compliance period and distributes these to regulated entities. Covered entities are allocated free allowances in whole or part (if eligible), and may buy allowances at auction, purchase allowances from others, or purchase offset credits. Each covered entity with a compliance obligation is required to surrender "compliance instruments" for each $MTCO_2e$ of GHG they emit. There also are requirements to surrender compliance instruments covering 30% of the prior year's compliance obligation by November of each year (36).

The Cap-and-Trade Program provides a firm cap, which provides the highest certainty of achieving the 2030 target. An inherent feature of the Cap-and-Trade program is that it does not guarantee GHG emissions reductions in any discrete location or by any particular source. Rather, GHG emissions reductions are only guaranteed on an accumulative basis. As summarized by CARB in the *First Update to the Climate Change Scoping Plan*:

> *"The Cap-and-Trade Regulation gives companies the flexibility to trade allowances with others or take steps to cost-effectively reduce emissions at their own facilities. Companies that emit more have to turn in more allowances or other compliance instruments. Companies that can cut their GHG emissions have to turn in fewer allowances. But as the cap declines, aggregate emissions must be reduced. In other words, a covered entity theoretically could increase its GHG emissions every year and still comply with the Cap-and-Trade Program if there is a reduction in GHG emissions from other covered entities. Such a focus on aggregate GHG emissions is considered appropriate because climate change is a global phenomenon, and the effects of GHG emissions are considered cumulative."* (37)

The Cap-and-Trade Program covered approximately 80% of California's GHG emissions (33). The Cap-and-Trade Program covers the GHG emissions associated with electricity consumed in California, whether generated in-state or imported. Accordingly, GHG emissions associated with CEQA projects' electricity usage are covered by the Cap-and-Trade Program. The Cap-and-Trade Program also covers fuel suppliers (natural gas and propane fuel providers and transportation fuel providers) to address emissions from such fuels and from combustion of other fossil fuels not directly covered at large sources in the Program's first compliance period. The Cap-and-Trade Program covers the GHG emissions associated with the combustion of transportation fuels in California, whether refined in-state or imported.

2.7.3.3 CALIFORNIA REGULATIONS AND BUILDING CODES

Other legislation such as Title 24 and Title 20 energy standards were originally adopted for other purposes such as energy and water conservation, but also provide GHG reductions.

California has a long history of adopting regulations to improve energy efficiency in new and remodeled buildings. These regulations have kept California's energy consumption relatively flat even with rapid population growth.

TITLE 20 CCR

CCR, Title 20: Division 2, Chapter 4, Article 4, Sections 1601-1608: Appliance Efficiency Regulations regulates the sale of appliances in California. The Appliance Efficiency Regulations include standards for both federally regulated appliances and non-federally regulated appliances. 23 categories of appliances are included in the scope of these regulations. The standards within these regulations apply to appliances that are sold or offered for sale in California, except those sold wholesale in California for final retail sale outside the state and those designed and sold exclusively for use in recreational vehicles or other mobile equipment (CEC 2012).

TITLE 24 CCR

California's Energy Efficiency Standards

CCR Title 24 Part 6: California's Energy Efficiency Standards for Residential and Nonresidential Buildings, was first adopted in 1978 in response to a legislative mandate to reduce California's energy consumption. The standards are updated periodically to allow consideration and possible incorporation of new energy efficient technologies and methods. Energy efficient buildings

require less electricity; therefore, increased energy efficiency reduces fossil fuel consumption and decreases GHG emissions. The 2019 version of Title 24 was adopted by the CEC and became effective on January 1, 2020, and is incorporated in CalEEMod.

California Green Building Standards Code

CCR, Title 24, Part 11: California Green Building Standards Code (CALGreen) is a comprehensive and uniform regulatory code for all residential, commercial, and school buildings that went in effect on January 1, 2011, and is administered by the California Building Standards Commission (BSC). CALGreen is updated on a regular basis, with the most recent approved update consisting of the 2019 California Green Building Code Standards that have become effective on January 1, 2020. Local jurisdictions are permitted to adopt more stringent requirements, as state law provides methods for local enhancements. CALGreen recognizes that many jurisdictions have developed existing construction and demolition ordinances and defers to them as the ruling guidance provided, they establish a minimum 65% diversion requirement. The code also provides exemptions for areas not served by construction and demolition recycling infrastructure. The 2019 CALGreen standards are applicable to the Project and require, among other items (38):

- During site development one or more of the following measures shall be implemented to prevent flooding of adjacent property, prevent erosion and retain soil runoff on the site (4.106.2).
    - Retention basins of sufficient size shall be utilized to retain storm water on the site.
    - Where storm water is conveyed to a public drainage system, collection point, gutter or similar disposal method, water shall be filtered by use of a barrier system, wattle or other method approved by the enforcing agency.
    - Compliance with a lawfully enacted storm water management ordinance.
- Construction plans shall indicate how the site grading or drainage system will manage all surface water flows to keep water from entering buildings (4.106.3).
- New residential construction shall facilitate future installation and use of EV chargers. Electric vehicle supply equipment (EVSE) (4.106.4).
    - For one- and two-family dwelling units and townhomes with attached garages, install a listed raceway to accommodate a dedicated 208/240-volt branch circuit for each dwelling unit (4.106.4.1).
    - Where 17 or more multifamily dwelling units are constructed on a building site, 3 percent of the total number of parking spaces provided for all types of parking facilities, but in no case less than one, shall be electric vehicle charging spaces (EV spaces) capable of supporting future EVSE. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number (4.106.4.2).

        - Construction documents shall indicate the location of proposed EV spaces. At least one EV space shall be located in common use areas and available for use by all residents. (4.106.4.2.1)

    - All newly constructed hotels and motels shall provide EV spaces capable of supporting future installation of EVSE. The construction documents shall identify the location of the EV spaces.

        - The number of required EV spaces shall be based on the total number of parking spaces provided for all types of parking facilities in accordance with Table 4.106.4.3.1. Calculations for the required number of EV spaces shall be rounded up to the nearest whole number (4.106.4.3.1).

- Comply with Title 24, Part 6 energy efficiency standards (4.201.1).
- Water conserving plumbing fixtures and fittings. Plumbing fixtures (water closets and urinals) and fittings (faucets and showerheads) shall comply with the following:
    - Water Closets. The effective flush volume of all water closets shall not exceed 1.28 gallons per flush (4.303.1.1)
    - Urinals. The effective flush volume of wall-mounted urinals shall not exceed 0.125 gallons per flush. The effective flush volume of floor-mounted or other urinals shall not exceed 0.5 gallons per flush (4.303.1.2).
    - Showerheads. Single showerheads shall have a minimum flow rate of not more than 1.8 gallons per minute and 80 psi (4.303.1.3.1). When a shower is served by more than one showerhead, the combine flow rate of all showerheads and/or other shower outlets controlled by a single valve shall not exceed 1.8 gallons per minute at 80 psi (4.303.1.3.2).
    - Faucets and fountains. Residential lavatory faucets shall have a maximum flow rate of note more than 1.2 gallons per minute at 60 psi (4.303.1.4.1). Lavatory faucets in common or public use areas shall have a maximum flow rate of note more than 0.5 gallons per minute at 60 psi (4.303.1.4.2). Metering faucets shall not deliver more than 0.25 gallons per cycle (4.303.1.4.3). Kitchen faucets shall have a maximum flow rate of not more than 1.8 gallons per minute of 60 psi (4.303.1.4.4).
- Outdoor potable water use in landscaped areas. Residential developments with an aggregate area equal to or greater than 500 square feet shall comply with a local water efficient landscape ordinance or the current California Department of Water Resources' Model Water Efficient Landscape Ordinance (MWELO), whichever is more stringent (4.304.1).
- Newly constructed residential developments, where disinfected tertiary recycled water is available from a municipal source to a construction site, may be required to have recycled water supply systems installed, allowing the use of recycled water for residential landscape irrigation systems (4.305.1).
- Construction waste management. Recycle and/or salvage for reuse a minimum of 65% of the nonhazardous construction and demolition waste in accordance with Section 4.401.1, 4.408.2; or meet a local construction and demolition waste management ordinance, whichever is more stringent (5.408.1).

- At the time of final inspection, a manual, compact disc, web-based reference or other media acceptable to the enforcing agency which includes all of the following shall be placed in the building (4.410.1):
    - Directions to the owner or occupant that the manual shall remain with the building throughout the life cycle of the structure.
    - Operation and maintenance instructions for the following:
    - Equipment and appliances, including water-saving devices and systems, HVAC systems, photovoltaic systems, electric vehicle chargers, water-heating systems and other major appliances and equipment.
    - Roof and yard drainage, including gutters and downspouts.
    - Space conditioning systems, including condensers and air filters.
    - Landscape irrigation systems.
    - Water reuse systems.
    - Information from local utility, water and waste recovery providers on methods to further reduce resource consumption, including recycle programs and locations.
    - Public transportation and/or carpool options available in the area.
    - Educational material on the positive impacts of an interior relative humidity between 30—60 percent and what methods an occupant may use to maintain the relative humidity level in that range.
    - Information about water-conserving landscape and irrigation design and controllers which conserve water.
    - Instructions for maintaining gutters and downspouts and the importance of diverting water at least 5 feet away from the foundation.
    - Information on required routine maintenance measures, including, but not limited to, caulking, painting, grading around the building, etc.
    - Information about state solar energy and incentive programs available.
    - A copy of all special inspection verifications required by the enforcing agency or this code.
- Recycling by Occupants. Where 5 or more multi-family dwelling units, provide readily accessible areas that serve the entire building and are identified for the depositing, storage and collection of non-hazardous materials for recycling, including (at a minimum) paper, corrugated cardboard, glass, plastics, organic waste, and metals or meet a lawfully enacted local recycling ordinance, if more restrictive (4.410.2).

It should be noted the requirements of CalGreen are not incorporated into CalEEMod.

2.7.4 REGIONAL

MDAQMD CEQA Guidelines

According to the MDAQMD's *CEQA and Federal Conformity Guidelines*, a project is significant if it triggers or exceeds the most appropriate evaluation criteria. The MDAQMD states that in general, for GHG emissions, the significance emission threshold of 100,000 Tons CO_2e (90,718.5 MT CO_2e) per year is sufficient (39). A significant project must incorporate mitigation sufficient

to reduce its impact to a level that is not significant. A project that cannot be mitigated to a level that is not significant must incorporate all feasible mitigation.

2.8 DISCUSSION ON ESTABLISHMENT OF SIGNIFICANCE THRESHOLDS

The MDAQMD has determined that a project that emits less than 90,718.5 MT CO_2e/yr is not considered a substantial GHG emitter and the GHG impact would be less than significant. On the other hand, if a project would emit GHG emissions in excess of 90,718.5 MT CO_2e/yr could be considered a substantial GHG emitter, requiring additional analysis and potential mitigation. The City of Blythe has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions. As such, the MDAQMD threshold of significance is utilized in this analysis.

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3 PROJECT GREENHOUSE GAS IMPACT

3.1 INTRODUCTION

The Project has been evaluated to determine if it will result in a significant greenhouse gas impact. The significance of these potential impacts is described in the following section.

3.2 STANDARDS OF SIGNIFICANCE

The criteria used to determine the significance of potential Project-related GHG impacts are taken from the Initial Study Checklist in Appendix G of the State *CEQA Guidelines* (14 CCR §§15000, et seq.). Based on these thresholds, a project would result in a significant impact related to GHG if it would (32):

- Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment?
- Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of GHGs?

3.3 MODELS EMPLOYED TO ANALYZE GREENHOUSE GASES EMISSIONS

Land uses such as the Project affect GHGs through construction-source and operational-source emissions.

3.3.1 CALIFORNIA EMISSIONS ESTIMATOR MODEL™

In June 2021, the SCAQMD, in conjunction with the California Air Pollution Control Officers Association (CAPCOA) and other California air districts, released the latest version of the California Emissions Estimator Model, Version 2020.4.0 (CalEEMod). The purpose of this model is to calculate construction-source and operational-source criteria pollutants and GHG emissions from direct and indirect sources; and quantify applicable air quality and GHG reductions achieved from mitigation measures (40). Accordingly, the latest version of CalEEMod has been used for this Project to determine GHG emissions. Output from the model runs for construction and operational activity are provided in Appendix 3.1. CalEEMod includes GHG emissions from the following source categories: construction, area, energy, mobile, waste, water.

3.4 CONSTRUCTION EMISSIONS

Project construction actvities would generate CO_2 and CH_4 emissions The report *Edelweiss Sustainable Farms Project Air Quality Impact Analysis Report* (Urban Crossroads, Inc.) (AQIA) contains detailed information regarding Project construction activities (41). As discussed in the AQIA, Construction related emissions are expected from the following construction activities:

- Site Preparation
- Grading
- Building Construction

- Paving
- Architectural Coating

3.4.1 CONSTRUCTION DURATION

Construction is expected to commence in early 2022 and will last through August 2023. Construction duration by phase is shown on Table 3-1. The construction schedule utilized in the analysis represents a "worst-case" analysis scenario should construction occur any time after the respective dates since emission factors for construction decrease as time passes and the analysis year increases due to emission regulations becoming more stringent. The duration of construction activity and associated equipment represents a reasonable approximation of the expected construction fleet as required per CEQA guidelines. Site specific construction fleet may vary due to specific project needs at the time of construction. The duration of construction activity was based on CalEEMod model defaults and a 2023 opening year. The associated construction equipment was generally based on CalEEMod defaults. Please refer to specific detailed modeling inputs/outputs contained in Appendix 3.1 of this analysis. A detailed summary of construction equipment assumptions by phase is provided at Table 3-2.

TABLE 3-1: CONSTRUCTION DURATION

Phase Name	Start Date	End Date	Days
Site Preparation	01/01/2022	01/14/2022	10
Grading	01/29/2022	03/04/2022	35
Building Construction	3/05/2022	08/04/2023	370
Paving	03/01/2023	08/04/2023	113
Architectural Coating	03/01/2023	08/04/2023	113

Source: CalEEMod, Appendix 3.1.

TABLE 3-2: CONSTRUCTION EQUIPMENT ASSUMPTIONS

Phase Name	Equipment	Amount	Hours Per Day
Site Preparation	Crawler Tractors	4	8
	Rubber Tired Dozers	3	8
Grading	Crawler Tractors	2	8
	Excavators	2	8
	Graders	1	8
	Rubber Tired Dozers	1	8
	Scrapers	2	8
Building Construction	Cranes	1	8
	Crawler Tractors	3	8
	Forklifts	3	8
	Generator Sets	1	8
	Welders	1	8
Paving	Pavers	2	8
	Paving Equipment	2	8
	Rollers	2	8
Architectural Coating	Air Compressors	1	8

Source: CalEEMod, Appendix 3.1

3.4.2 CONSTRUCTION EMISSIONS SUMMARY

For construction phase Project emissions, GHGs are quantified and amortized over the life of the Project. MDAQMD follows the SCAQMD recommendation in calculating the total GHG emissions for construction activities by amortizing the emissions over the life of the Project by dividing it by a 30- year project life then adding that number to the annual operational phase GHG emissions (39). As such, construction emissions were amortized over a 30-year period and added to the annual operational phase GHG emissions. The amortized construction emissions are presented in Table 3-3.

TABLE 3-3: AMORTIZED ANNUAL CONSTRUCTION EMISSIONS

Year	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
2022	1,193.89	0.12	0.06	1,215.09
2023	948.60	0.10	0.04	963.92
Total Annual Construction Emissions	2,142.49	0.22	0.10	2,179.01
Amortized Construction Emissions ($MTCO_2e$)	**71.42**	**7.33E-03**	**3.33E-03**	**72.63**

Source: CalEEMod, Appendix 3.1

3.5 OPERATIONAL EMISSIONS

Operational activities associated with the proposed Project will result in emissions of CO_2, CH_4, and N_2O from the following primary sources:

- Building Energy Use (combustion emissions associated with natural gas and electricity)
- Water Supply, Treatment and Distribution
- Solid Waste
- Mobile Source Emissions

3.5.1 AREA SOURCE EMISSIONS

LANDSCAPE MAINTENANCE EQUIPMENT

Landscape maintenance equipment would generate emissions from fuel combustion and evaporation of unburned fuel. Equipment in this category would include lawnmowers, shedders/grinders, blowers, trimmers, chain saws, and hedge trimmers used to maintain the landscaping of the Project. The emissions associated with landscape maintenance equipment were calculated based on assumptions provided in the CalEEMod model.

3.5.2 BUILDING ENERGY USE

GHGs are emitted from buildings as a result of activities for which electricity and natural gas are typically used as energy sources. Combustion of any type of fuel emits CO_2 and other GHGs directly into the atmosphere; these emissions are considered direct emissions associated with a building. GHGs are also emitted during the generation of electricity from fossil fuels; these emissions are considered to be indirect emissions. The proposed Project would reduce energy use through the installation of at least 7,000 sf of solar panels on each building. Based on data provided by the Project applicant, it is estimated that the proposed Project would consume approximately 139,284 megawatt hours per year.

3.5.3 MOBILE SOURCE EMISSIONS

Project-related operational air quality impacts derive primarily from vehicle trips generated by the Project. Trip characteristics available from the report, *Edelweiss Sustainable Farms Project Traffic Study* were utilized in this analysis (42).

3.5.4 SOLID WASTE

Cultivation and processing and administrative office land uses land uses would result in the generation and disposal of solid waste. A large percentage of this waste would be diverted from landfills by a variety of means, such as reducing the amount of waste generated, recycling, and/or composting. The remainder of the waste not diverted would be disposed of at a landfill. GHG emissions from landfills are associated with the anaerobic breakdown of material. GHG emissions associated with the disposal of solid waste associated with the Project were calculated using CalEEMod default parameters.

3.5.5 WATER SUPPLY, TREATMENT AND DISTRIBUTION

Indirect GHG emissions result from the production of electricity used to convey, treat and distribute water and wastewater. The amount of electricity required to convey, treat and distribute water depends on the volume of water as well as the sources of the water. Based on data provided by the project applicant, it is estimated that the cannabis cultivation and processing portion of the proposed Project would utilize approximately 100 acre-feet of water per year based on similar land uses. CalEEMod default parameters were utilized for the administrative office land uses. The proposed Project would also reduce water use through the use of reclaimed water for irrigation and landscaping purposes.

3.6 EMISSIONS SUMMARY

As shown on Table 3-4, without accounting for applicable regulatory requirements and PDFs, the Project would result in 28,234.52 $MTCO_2e$/yr.

TABLE 3-4: PROJECT GHG EMISSIONS SUMMARY (ANNUAL)

Emission Source	Emissions (MT/yr)			
	CO_2	CH_4	N_2O	Total CO_2e
Annual construction-related emissions amortized over 30 years	71.42	7.33E-03	3.33E-03	72.63
Area Source	9.77E-03	3.00E-05	0.00	0.01
Energy Source	24,701.40	2.09	0.25	24,828.83
Mobile Source	2,906.91	0.15	0.14	2,953.02
Waste	132.81	7.85	0.00	329.03
Water Usage	37.27	0.43	0.01	51.00
Total CO_2e (All Sources)	**28,234.52**			
MDAQMD Threshold	**90,718.5**			
Significant?	**No**			

Source: CalEEMod, Appendix 3.1

3.7 FINDINGS AND CONCLUSIONS

GHG Impact #1: The Project would not generate direct or indirect greenhouse gas emission that would result in a significant impact on the environment.

The Project has the potential to generate a total of approximately 28,234.52 MT CO_2e/yr as summarized on Table 3-4. This is well below the MDAQMD's threshold of 90,718.5 MT CO_2e.

Finally, as discussed in Chapter 2, an individual project cannot generate enough GHG emissions to influence global climate change. The project participates in this potential impact by its incremental contribution combined with the cumulative increase of all other sources of GHGs, which when taken together may have a significant impact on global climate change. Based on the total GHG emissions being below the MDAQMD significance threshold, the Project's emssions would have a less than significant impact on global climate change.

GHG Impact #2: The Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

As substantiated herein, the proposed Project would not exceed MDAQMD significance thresholds and would be in concert with AB 32 and international efforts to address global climate change that would substantially lessen cumulative GHG emissions impacts.

As discussed in Impact GHG-1 above, the Project's GHG emissions would not exceed MDAQMD significance thresholds. The project applicant would not actively interfere with any future City-mandated, state mandated, or federally mandated retrofit obligations enacted or promulgated to legally require development City of Blythe, state-wide, or nation-wide to assist in meeting state-adopted greenhouse gas emissions reduction targets, including that established under Executive Order S-3-05, Executive Order B-30-15, or SB 32. On this basis, the Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

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5 CERTIFICATION

The contents of this GHG study report represent an accurate depiction of the GHG impacts associated with the proposed Edelweiss Sustainable Farms Project Project. The information contained in this GHG report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at hqureshi@urbanxroads.com.

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EDUCATION

Master of Science in Environmental Studies
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PROFESSIONAL AFFILIATIONS

AEP – Association of Environmental Planners
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ASTM – American Society for Testing and Materials

PROFESSIONAL CERTIFICATIONS

Planned Communities and Urban Infill – Urban Land Institute • June 2011
Indoor Air Quality and Industrial Hygiene – EMSL Analytical • April 2008
Principles of Ambient Air Monitoring – CARB • August 2007
AB2588 Regulatory Standards – Trinity Consultants • November 2006
Air Dispersion Modeling – Lakes Environmental • June 2006

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APPENDIX 3.1:

CALEEMOD EMISSIONS MODEL OUTPUT

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

14338 Edelweiss Sustainable Farms

Riverside-Mojave Desert MDAQMD County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
General Office Building	24.71	1000sqft	0.57	24,709.00	0
Manufacturing	509.10	1000sqft	11.69	509,103.00	0
Parking Lot	12.84	Acre	12.84	559,310.40	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2023
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	390.98	**CH4 Intensity (lb/MWhr)**	0.033	**N2O Intensity (lb/MWhr)**	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - Square footage based on project description

Construction Phase - Project schedule based on similar projects.

Off-road Equipment - Assumed equipment will operate 8 hours/day.

Off-road Equipment - Assumed all equipment will operate 8 hours/day. Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

Off-road Equipment -

Off-road Equipment - Crawler tractors used in lieu of tractors/loaders/backhoes in order to account for fugitive dust emissions.

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Grading - Based on total project site of 33.84 ac

Vehicle Trips - Based on project trip generation rates.

Energy Use - Project will not utilize natural gas. Estimated electrical demand based on data from Project team.

Water And Wastewater - Assumes 100 af/yr for cannabis cultivation.

Energy Mitigation -

Water Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	440.00	370.00
tblConstructionPhase	NumDays	45.00	35.00
tblConstructionPhase	NumDays	35.00	113.00
tblConstructionPhase	NumDays	20.00	10.00
tblEnergyUse	NT24E	5.02	267.86
tblEnergyUse	NT24NG	17.13	0.00
tblEnergyUse	T24NG	3.43	0.00
tblEnergyUse	T24NG	15.20	0.00
tblGrading	AcresOfGrading	105.00	33.84
tblGrading	AcresOfGrading	35.00	33.84
tblLandUse	LandUseSquareFeet	24,710.00	24,709.00
tblLandUse	LandUseSquareFeet	509,100.00	509,103.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	HorsePower	212.00	247.00
tblOffRoadEquipment	HorsePower	212.00	97.00
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	LoadFactor	0.43	0.40
tblOffRoadEquipment	LoadFactor	0.43	0.37
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	8.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblVehicleTrips	ST_TR	2.21	11.25
tblVehicleTrips	ST_TR	6.42	3.93
tblVehicleTrips	SU_TR	0.70	11.25
tblVehicleTrips	SU_TR	5.09	3.93
tblVehicleTrips	WD_TR	9.74	11.25
tblWater	IndoorWaterUseRate	117,729,375.00	32,590,000.00

2.0 Emissions Summary

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5609	4.1181	4.7238	0.0131	0.8651	0.1985	1.0636	0.2524	0.1849	0.4373	0.0000	1,193.8936	1,193.8936	0.1174	0.0613	1,215.0909
2023	6.8071	2.7879	3.9991	0.0104	0.6039	0.1356	0.7395	0.1623	0.1265	0.2888	0.0000	948.5961	948.5961	0.0961	0.0434	963.9181
Maximum	**6.8071**	**4.1181**	**4.7238**	**0.0131**	**0.8651**	**0.1985**	**1.0636**	**0.2524**	**0.1849**	**0.4373**	**0.0000**	**1,193.8936**	**1,193.8936**	**0.1174**	**0.0613**	**1,215.0909**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2022	0.5609	4.1181	4.7238	0.0131	0.8651	0.1985	1.0636	0.2524	0.1849	0.4373	0.0000	1,193.8932	1,193.8932	0.1174	0.0613	1,215.0904
2023	6.8071	2.7879	3.9991	0.0104	0.6039	0.1356	0.7395	0.1623	0.1265	0.2888	0.0000	948.5957	948.5957	0.0961	0.0434	963.9178
Maximum	**6.8071**	**4.1181**	**4.7238**	**0.0131**	**0.8651**	**0.1985**	**1.0636**	**0.2524**	**0.1849**	**0.4373**	**0.0000**	**1,193.8932**	**1,193.8932**	**0.1174**	**0.0613**	**1,215.0904**

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	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	**1-1-2022**	**3-31-2022**	1.2559	1.2559
2	**4-1-2022**	**6-30-2022**	1.1296	1.1296
3	**7-1-2022**	**9-30-2022**	1.1420	1.1420
4	**10-1-2022**	**12-31-2022**	1.1525	1.1525
5	**1-1-2023**	**3-31-2023**	2.4125	2.4125
6	**4-1-2023**	**6-30-2023**	5.1387	5.1387
7	**7-1-2023**	**9-30-2023**	1.9764	1.9764
		Highest	5.1387	5.1387

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Mobile	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Waste						0.0000	0.0000		0.0000	0.0000	132.8089	0.0000	132.8089	7.8488	0.0000	329.0284
Water						0.0000	0.0000		0.0000	0.0000	11.7326	90.7026	102.4352	1.2127	0.0294	141.5087
Total	**3.9718**	**2.0576**	**13.0464**	**0.0312**	**3.2141**	**0.0253**	**3.2394**	**0.8587**	**0.0237**	**0.8824**	**144.5415**	**27,699.0224**	**27,843.5639**	**11.2927**	**0.4245**	**28,252.3949**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Mobile	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Waste						0.0000	0.0000		0.0000	0.0000	132.8089	0.0000	132.8089	7.8488	0.0000	329.0284
Water						0.0000	0.0000		0.0000	0.0000	4.1207	33.1464	37.2671	0.4260	0.0103	50.9970
Total	**3.9718**	**2.0576**	**13.0464**	**0.0312**	**3.2141**	**0.0253**	**3.2394**	**0.8587**	**0.0237**	**0.8824**	**136.9295**	**27,641.4663**	**27,778.3958**	**10.5060**	**0.4055**	**28,161.8832**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**5.27**	**0.21**	**0.23**	**6.97**	**4.49**	**0.32**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/1/2022	1/14/2022	5	10	
2	Grading	Grading	1/29/2022	3/18/2022	5	35	
3	Building Construction	Building Construction	3/5/2022	8/4/2023	5	370	

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4	Paving	Paving	3/1/2023	8/4/2023	5	113	
5	Architectural Coating	Architectural Coating	3/1/2023	8/4/2023	5	113	

Acres of Grading (Site Preparation Phase): 33.84

Acres of Grading (Grading Phase): 33.84

Acres of Paving: 12.84

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 800,718; Non-Residential Outdoor: 266,906; Striped Parking Area: 33,559 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Crawler Tractors	4	8.00	97	0.37
Site Preparation	Rubber Tired Dozers	3	8.00	247	0.40
Grading	Crawler Tractors	1	8.00	247	0.40
Grading	Excavators	2	8.00	158	0.38
Grading	Graders	1	8.00	187	0.41
Grading	Scrapers	2	8.00	367	0.48
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Building Construction	Cranes	1	8.00	231	0.29
Building Construction	Crawler Tractors	3	8.00	97	0.37
Building Construction	Forklifts	3	8.00	89	0.20
Building Construction	Generator Sets	1	8.00	84	0.74
Building Construction	Welders	1	8.00	46	0.45
Paving	Pavers	2	8.00	130	0.42
Paving	Paving Equipment	2	8.00	132	0.36
Paving	Rollers	2	8.00	80	0.38
Architectural Coating	Air Compressors	1	8.00	78	0.48

Trips and VMT

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Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	7	18.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	8	20.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	9	457.00	179.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	6	15.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Architectural Coating	1	91.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1083	0.0000	0.1083	0.0516	0.0000	0.0516	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1965	0.1034	1.9000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	16.7211	16.7211	5.4100e-003	0.0000	16.8563
Total	**0.0202**	**0.1965**	**0.1034**	**1.9000e-004**	**0.1083**	**0.0114**	**0.1197**	**0.0516**	**0.0105**	**0.0621**	**0.0000**	**16.7211**	**16.7211**	**5.4100e-003**	**0.0000**	**16.8563**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.4400e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8917	0.8917	2.0000e-005	2.0000e-005	0.8994
Total	**3.4000e-004**	**2.7000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8917**	**0.8917**	**2.0000e-005**	**2.0000e-005**	**0.8994**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1083	0.0000	0.1083	0.0516	0.0000	0.0516	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0202	0.1965	0.1034	1.9000e-004		0.0114	0.0114		0.0105	0.0105	0.0000	16.7211	16.7211	5.4100e-003	0.0000	16.8563
Total	**0.0202**	**0.1965**	**0.1034**	**1.9000e-004**	**0.1083**	**0.0114**	**0.1197**	**0.0516**	**0.0105**	**0.0621**	**0.0000**	**16.7211**	**16.7211**	**5.4100e-003**	**0.0000**	**16.8563**

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3.2 Site Preparation - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.4000e-004	2.7000e-004	3.4400e-003	1.0000e-005	1.1300e-003	1.0000e-005	1.1400e-003	3.0000e-004	1.0000e-005	3.1000e-004	0.0000	0.8917	0.8917	2.0000e-005	2.0000e-005	0.8994
Total	**3.4000e-004**	**2.7000e-004**	**3.4400e-003**	**1.0000e-005**	**1.1300e-003**	**1.0000e-005**	**1.1400e-003**	**3.0000e-004**	**1.0000e-005**	**3.1000e-004**	**0.0000**	**0.8917**	**0.8917**	**2.0000e-005**	**2.0000e-005**	**0.8994**

3.3 Grading - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0179	0.0000	0.0179	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6398	0.4895	1.0900e-003		0.0256	0.0256		0.0236	0.0236	0.0000	95.3659	95.3659	0.0308	0.0000	96.1369
Total	**0.0581**	**0.6398**	**0.4895**	**1.0900e-003**	**0.0179**	**0.0256**	**0.0436**	**1.9400e-003**	**0.0236**	**0.0255**	**0.0000**	**95.3659**	**95.3659**	**0.0308**	**0.0000**	**96.1369**

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3.3 Grading - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0600e-003	0.0134	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4675	3.4675	9.0000e-005	9.0000e-005	3.4975
Total	**1.3300e-003**	**1.0600e-003**	**0.0134**	**4.0000e-005**	**4.4000e-003**	**2.0000e-005**	**4.4200e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.4675**	**3.4675**	**9.0000e-005**	**9.0000e-005**	**3.4975**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0179	0.0000	0.0179	1.9400e-003	0.0000	1.9400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0581	0.6398	0.4895	1.0900e-003		0.0256	0.0256		0.0236	0.0236	0.0000	95.3658	95.3658	0.0308	0.0000	96.1368
Total	**0.0581**	**0.6398**	**0.4895**	**1.0900e-003**	**0.0179**	**0.0256**	**0.0436**	**1.9400e-003**	**0.0236**	**0.0255**	**0.0000**	**95.3658**	**95.3658**	**0.0308**	**0.0000**	**96.1368**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.3 Grading - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3300e-003	1.0600e-003	0.0134	4.0000e-005	4.4000e-003	2.0000e-005	4.4200e-003	1.1700e-003	2.0000e-005	1.1900e-003	0.0000	3.4675	3.4675	9.0000e-005	9.0000e-005	3.4975
Total	**1.3300e-003**	**1.0600e-003**	**0.0134**	**4.0000e-005**	**4.4000e-003**	**2.0000e-005**	**4.4200e-003**	**1.1700e-003**	**2.0000e-005**	**1.1900e-003**	**0.0000**	**3.4675**	**3.4675**	**9.0000e-005**	**9.0000e-005**	**3.4975**

3.4 Building Construction - 2022

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2645	2.3034	1.9542	3.1000e-003		0.1471	0.1471		0.1372	0.1372	0.0000	266.9566	266.9566	0.0655	0.0000	268.5929
Total	**0.2645**	**2.3034**	**1.9542**	**3.1000e-003**		**0.1471**	**0.1471**		**0.1372**	**0.1372**	**0.0000**	**266.9566**	**266.9566**	**0.0655**	**0.0000**	**268.5929**

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3.4 Building Construction - 2022

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0299	0.8279	0.2839	3.3700e-003	0.1163	0.0113	0.1276	0.0336	0.0108	0.0443	0.0000	323.7721	323.7721	3.4200e-003	0.0481	338.1793
Worker	0.1866	0.1492	1.8760	5.2700e-003	0.6170	3.0900e-003	0.6201	0.1638	2.8500e-003	0.1667	0.0000	486.7188	486.7188	0.0122	0.0131	490.9285
Total	**0.2165**	**0.9771**	**2.1599**	**8.6400e-003**	**0.7333**	**0.0143**	**0.7477**	**0.1974**	**0.0136**	**0.2110**	**0.0000**	**810.4909**	**810.4909**	**0.0156**	**0.0612**	**829.1078**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.2645	2.3034	1.9542	3.1000e-003		0.1471	0.1471		0.1372	0.1372	0.0000	266.9562	266.9562	0.0655	0.0000	268.5925
Total	**0.2645**	**2.3034**	**1.9542**	**3.1000e-003**		**0.1471**	**0.1471**		**0.1372**	**0.1372**	**0.0000**	**266.9562**	**266.9562**	**0.0655**	**0.0000**	**268.5925**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2022

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0299	0.8279	0.2839	3.3700e-003	0.1163	0.0113	0.1276	0.0336	0.0108	0.0443	0.0000	323.7721	323.7721	3.4200e-003	0.0481	338.1793
Worker	0.1866	0.1492	1.8760	5.2700e-003	0.6170	3.0900e-003	0.6201	0.1638	2.8500e-003	0.1667	0.0000	486.7188	486.7188	0.0122	0.0131	490.9285
Total	**0.2165**	**0.9771**	**2.1599**	**8.6400e-003**	**0.7333**	**0.0143**	**0.7477**	**0.1974**	**0.0136**	**0.2110**	**0.0000**	**810.4909**	**810.4909**	**0.0156**	**0.0612**	**829.1078**

3.4 Building Construction - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.5402	1.3952	2.2300e-003		0.0952	0.0952		0.0887	0.0887	0.0000	192.4744	192.4744	0.0469	0.0000	193.6465
Total	**0.1766**	**1.5402**	**1.3952**	**2.2300e-003**		**0.0952**	**0.0952**		**0.0887**	**0.0887**	**0.0000**	**192.4744**	**192.4744**	**0.0469**	**0.0000**	**193.6465**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.4627	0.1877	2.3300e-003	0.0839	3.7900e-003	0.0876	0.0242	3.6200e-003	0.0278	0.0000	224.2658	224.2658	2.2800e-003	0.0332	234.2081
Worker	0.1250	0.0949	1.2452	3.6800e-003	0.4449	2.1000e-003	0.4469	0.1181	1.9300e-003	0.1201	0.0000	341.6907	341.6907	7.8800e-003	8.7100e-003	344.4825
Total	**0.1398**	**0.5576**	**1.4330**	**6.0100e-003**	**0.5287**	**5.8900e-003**	**0.5346**	**0.1423**	**5.5500e-003**	**0.1479**	**0.0000**	**565.9565**	**565.9565**	**0.0102**	**0.0419**	**578.6907**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1766	1.5402	1.3951	2.2300e-003		0.0952	0.0952		0.0887	0.0887	0.0000	192.4742	192.4742	0.0469	0.0000	193.6462
Total	**0.1766**	**1.5402**	**1.3951**	**2.2300e-003**		**0.0952**	**0.0952**		**0.0887**	**0.0887**	**0.0000**	**192.4742**	**192.4742**	**0.0469**	**0.0000**	**193.6462**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.4 Building Construction - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0148	0.4627	0.1877	2.3300e-003	0.0839	3.7900e-003	0.0876	0.0242	3.6200e-003	0.0278	0.0000	224.2658	224.2658	2.2800e-003	0.0332	234.2081
Worker	0.1250	0.0949	1.2452	3.6800e-003	0.4449	2.1000e-003	0.4469	0.1181	1.9300e-003	0.1201	0.0000	341.6907	341.6907	7.8800e-003	8.7100e-003	344.4825
Total	**0.1398**	**0.5576**	**1.4330**	**6.0100e-003**	**0.5287**	**5.8900e-003**	**0.5346**	**0.1423**	**5.5500e-003**	**0.1479**	**0.0000**	**565.9565**	**565.9565**	**0.0102**	**0.0419**	**578.6907**

3.5 Paving - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0584	0.5758	0.8240	1.2900e-003		0.0288	0.0288		0.0265	0.0265	0.0000	113.1518	113.1518	0.0366	0.0000	114.0667
Paving	0.0168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0752**	**0.5758**	**0.8240**	**1.2900e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**113.1518**	**113.1518**	**0.0366**	**0.0000**	**114.0667**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9900e-003	2.2700e-003	0.0298	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8300e-003	5.0000e-005	2.8700e-003	0.0000	8.1763	8.1763	1.9000e-004	2.1000e-004	8.2431
Total	**2.9900e-003**	**2.2700e-003**	**0.0298**	**9.0000e-005**	**0.0106**	**5.0000e-005**	**0.0107**	**2.8300e-003**	**5.0000e-005**	**2.8700e-003**	**0.0000**	**8.1763**	**8.1763**	**1.9000e-004**	**2.1000e-004**	**8.2431**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0584	0.5758	0.8240	1.2900e-003		0.0288	0.0288		0.0265	0.0265	0.0000	113.1517	113.1517	0.0366	0.0000	114.0666
Paving	0.0168					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0752**	**0.5758**	**0.8240**	**1.2900e-003**		**0.0288**	**0.0288**		**0.0265**	**0.0265**	**0.0000**	**113.1517**	**113.1517**	**0.0366**	**0.0000**	**114.0666**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.5 Paving - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.9900e-003	2.2700e-003	0.0298	9.0000e-005	0.0106	5.0000e-005	0.0107	2.8300e-003	5.0000e-005	2.8700e-003	0.0000	8.1763	8.1763	1.9000e-004	2.1000e-004	8.2431
Total	**2.9900e-003**	**2.2700e-003**	**0.0298**	**9.0000e-005**	**0.0106**	**5.0000e-005**	**0.0107**	**2.8300e-003**	**5.0000e-005**	**2.8700e-003**	**0.0000**	**8.1763**	**8.1763**	**1.9000e-004**	**2.1000e-004**	**8.2431**

3.6 Architectural Coating - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.0982	0.1364	2.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	19.2345	19.2345	1.1500e-003	0.0000	19.2633
Total	**6.3944**	**0.0982**	**0.1364**	**2.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**19.2345**	**19.2345**	**1.1500e-003**	**0.0000**	**19.2633**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.6 Architectural Coating - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0181	0.0138	0.1808	5.3000e-004	0.0646	3.0000e-004	0.0649	0.0172	2.8000e-004	0.0174	0.0000	49.6027	49.6027	1.1400e-003	1.2600e-003	50.0080
Total	**0.0181**	**0.0138**	**0.1808**	**5.3000e-004**	**0.0646**	**3.0000e-004**	**0.0649**	**0.0172**	**2.8000e-004**	**0.0174**	**0.0000**	**49.6027**	**49.6027**	**1.1400e-003**	**1.2600e-003**	**50.0080**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Archit. Coating	6.3800					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0144	0.0982	0.1364	2.2000e-004		5.3400e-003	5.3400e-003		5.3400e-003	5.3400e-003	0.0000	19.2345	19.2345	1.1500e-003	0.0000	19.2633
Total	**6.3944**	**0.0982**	**0.1364**	**2.2000e-004**		**5.3400e-003**	**5.3400e-003**		**5.3400e-003**	**5.3400e-003**	**0.0000**	**19.2345**	**19.2345**	**1.1500e-003**	**0.0000**	**19.2633**

3.6 Architectural Coating - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0181	0.0138	0.1808	5.3000e-004	0.0646	3.0000e-004	0.0649	0.0172	2.8000e-004	0.0174	0.0000	49.6027	49.6027	1.1400e-003	1.2600e-003	50.0080
Total	**0.0181**	**0.0138**	**0.1808**	**5.3000e-004**	**0.0646**	**3.0000e-004**	**0.0649**	**0.0172**	**2.8000e-004**	**0.0174**	**0.0000**	**49.6027**	**49.6027**	**1.1400e-003**	**1.2600e-003**	**50.0080**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202
Unmitigated	1.2124	2.0576	13.0414	0.0312	3.2141	0.0253	3.2394	0.8587	0.0237	0.8824	0.0000	2,906.9132	2,906.9132	0.1463	0.1425	2,953.0202

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
General Office Building	277.99	277.99	277.99	767,474	767,474
Manufacturing	2,000.76	2,000.76	2000.76	7,729,880	7,729,880
Parking Lot	0.00	0.00	0.00		
Total	2,278.75	2,278.75	2,278.75	8,497,354	8,497,354

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
General Office Building	14.70	6.60	6.60	33.00	48.00	19.00	77	19	4
Manufacturing	14.70	6.60	6.60	59.00	28.00	13.00	92	5	3
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
General Office Building	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468
Manufacturing	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Parking Lot	0.534849	0.056022	0.172639	0.141007	0.026597	0.007310	0.011327	0.018693	0.000616	0.000315	0.024057	0.001100	0.005468

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

Install High Efficiency Lighting

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Electricity Mitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	24,701.3969	24,701.3969	2.0849	0.2527	24,828.8272
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Unmitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.2 Energy by Land Use - NaturalGas

Mitigated

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	tons/yr										MT/yr					
General Office Building	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Manufacturing	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total		**0.0000**	**0.0000**	**0.0000**	**0.0000**		**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	227076	40.2709	3.4000e-003	4.1000e-004	40.4786
Manufacturing	1.38861e+008	24,626.4091	2.0786	0.2520	24,753.4526
Parking Lot	195759	34.7169	2.9300e-003	3.6000e-004	34.8960
Total		**24,701.3969**	**2.0849**	**0.2527**	**24,828.8272**

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5.3 Energy by Land Use - Electricity

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
General Office Building	227076	40.2709	3.4000e-003	4.1000e-004	40.4786
Manufacturing	1.38861e+008	24,626.4091	2.0786	0.2520	24,753.4526
Parking Lot	195759	34.7169	2.9300e-003	3.6000e-004	34.8960
Total		**24,701.3969**	**2.0849**	**0.2527**	**24,828.8272**

6.0 Area Detail

6.1 Mitigation Measures Area

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Unmitigated	2.7594	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104

6.2 Area by SubCategory

Unmitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Total	**2.7594**	**5.0000e-005**	**5.0200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.7700e-003**	**9.7700e-003**	**3.0000e-005**	**0.0000**	**0.0104**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

6.2 Area by SubCategory

Mitigated

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.6380					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	2.1210					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	4.7000e-004	5.0000e-005	5.0200e-003	0.0000		2.0000e-005	2.0000e-005		2.0000e-005	2.0000e-005	0.0000	9.7700e-003	9.7700e-003	3.0000e-005	0.0000	0.0104
Total	**2.7594**	**5.0000e-005**	**5.0200e-003**	**0.0000**		**2.0000e-005**	**2.0000e-005**		**2.0000e-005**	**2.0000e-005**	**0.0000**	**9.7700e-003**	**9.7700e-003**	**3.0000e-005**	**0.0000**	**0.0104**

7.0 Water Detail

7.1 Mitigation Measures Water

Use Reclaimed Water

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	37.2671	0.4260	0.0103	50.9970
Unmitigated	102.4352	1.2127	0.0294	141.5087

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	4.3918 / 2.69175	16.8385	0.1444	3.5400e-003	21.5028
Manufacturing	32.59 / 0	85.5967	1.0683	0.0258	120.0059
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**102.4352**	**1.2127**	**0.0294**	**141.5087**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
General Office Building	1.54247 / 1.60027	7.2043	0.0508	1.2600e-003	8.8491
Manufacturing	11.4461 / 0	30.0628	0.3752	9.0800e-003	42.1479
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		**37.2671**	**0.4260**	**0.0103**	**50.9970**

8.0 Waste Detail

8.1 Mitigation Measures Waste

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	132.8089	7.8488	0.0000	329.0284
Unmitigated	132.8089	7.8488	0.0000	329.0284

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	22.98	4.6647	0.2757	0.0000	11.5567
Manufacturing	631.28	128.1441	7.5731	0.0000	317.4717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**132.8089**	**7.8488**	**0.0000**	**329.0284**

14338 Edelweiss Sustainable Farms - Riverside-Mojave Desert MDAQMD County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
General Office Building	22.98	4.6647	0.2757	0.0000	11.5567
Manufacturing	631.28	128.1441	7.5731	0.0000	317.4717
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Total		**132.8089**	**7.8488**	**0.0000**	**329.0284**

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Stationary Equipment

Fire Pumps and Emergency Generators

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

11.0 Vegetation

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix J

Phase I Environmental Site Assessment

May 2022

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PHASE I ENVIRONMENTAL SITE ASSESSMENT







11625 W. Highway 60
Blythe, CA 92225

APN 836-100-007

JN: 2626

October 16, 2020

Prepared for:

Thomas Iller and Patrick Kelley

Prepared by:

Michelle D. Witherspoon,
Registered Environmental Property Assessor
REPA 897425

PHASE ONE ENVIRONMENTAL SITE ASSESSMENT
11625 W. Highway 60 (APN 836-100-007)
In the City of Blythe, County of Riverside, California

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(REPORT ORGANIZATION)

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EXECUTIVE SUMMARY

INTRODUCTION

MSA Consulting, Inc. ("MSA") was retained to conduct a Phase One Environmental Site Assessment ("Phase I ESA," "Assessment") for the Subject Property ("Property," "Site") of approximately 33 acres, located at 11625 W. Highway 60, in the City of Blythe, County of Riverside, California. The Property is assigned Riverside County Assessor's Parcel Number (APN) 836-100-007, situated immediately south of Hobson Way and north of Interstate 10 Freeway. It is worth noting that in terms of address information, Highway 60 is a historic and former road name that has since been changed to Hobson Way. The Property address was assigned prior to the name change. For purposes of this report, both names will refer to the same road, with references to Highway 60 being used in the context of historic maps and documents.

In its existing condition, the Property is characterized primarily by active agricultural uses consisting of cultivated row crops on approximately 26 acres of the 33-acre Site. The cultivated area is defined by the tilled soil rows on a relatively level ground surface, visibly absent of any debris, trash, or contamination indicators. At the time of observation, no irrigation pipes, fixtures, or related structures were noted in the cultivation area. Moreover, no fertilizer or related material storage were observed on any portion of the Property.

The western, northern, and eastern edges of the Property, which make up the remaining 7 acres, are distinguished by a combination of dirt access paths and earthen irrigation channels. This system of irrigation and drainage facilities is served by the adjacent *C Canal*, located immediately east of the Property. Based on agency consultation with a representative of the Palo Verde Irrigation District (PVID), the mentioned C Canal and its irrigation delivery facilities to the Property are operated and maintained by PVID. In addition to the irrigation facilities, a metal-framed billboard structure is installed along the northerly street frontage.

The purpose of this report is to advise **Thomas Iller** and **Patrick Kelley** of the existence or potential existence of recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the Property based on the investigation performed by MSA Consulting, Inc. in accordance with the scope and

limitations of the American Society of Testing and Materials (ASTM) Practice E-1527-13 "*Standard Practice for Environmental Site Assessments*." This investigation also evaluates the likelihood of contamination of the subject site as a result of either past or present land-use practices and the potential for future environmental contamination which may occur as a result of current conditions or operations and maintenance activities at either the subject site or properties adjoining the subject site, thereby identifying real or potential environmental or economic impact to the Subject Property.

The investigation was carried on through:

1. Researching various lists maintained by governmental agencies charged with surveillance of hazardous materials.
2. Review of agency records dealing with tank permits and hazardous materials clean up activities.
3. Interviews with governmental officials and agencies which are familiar with the history of the Subject Property and the vicinity.
4. Review of aerial photographs of the Subject Property and vicinity.
5. Subject Property reconnaissance.

No sampling of materials, air, water, soil, or the like was conducted as part of this assessment, as such analysis is beyond the scope of ASTM Practice E-1527-13.

EXPLANATION OF RECOGNIZED ENVIRONMENTAL CONDITIONS

Recognized environmental conditions are defined by the American Society of Testing and Materials (ASTM) practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Property due to any release to the environment; under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

Petroleum products are included within the scope of this practice because they are of concern with respect to many parcels of commercial real estate and current custom and usage is to include an inquiry into the presence of petroleum products when performing an environmental site assessment of commercial real estate.

A ***controlled recognized environmental condition*** is a recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

A ***historical recognized environmental condition*** is a past release of any hazardous substances or petroleum products that has occurred in connection with the Property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted use criteria established by a regulatory authority, without subjecting the Property to any required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls). Before calling the past release a historical recognized environmental condition, the environmental professional must determine whether the past release is a recognized environmental condition at the time the Phase I Environmental Site Assessment is conducted (for example, if there has been a change in the regulatory criteria). If the EP considers the past release to be a recognized environmental condition at the time the Phase I ESA is conducted, the condition shall be included in the conclusions section of the report as a recognized environmental condition.

A ***de minimis condition*** refers to a circumstance that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

MSA has performed a Phase I Environmental Site Assessment for the Property in conformance with the scope and limitations of ASTM Practice E1527-13. The Assessment did not identify recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the Subject Property.

It should be noted that no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a Subject Property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a Subject Property. An appropriate inquiry does not constitute an exhaustive assessment of a Subject Property. This practice recognizes reasonable limits of time and cost.

1.0 INTRODUCTION

The information presented in this report includes the results of field reconnaissance, a thorough review of various federal, state, and local government agency records, and interviews with persons familiar with the Subject Property. This report includes a summary of our findings, recommendations, and the assessment of the present environmental condition of the Subject Property.

1.1 Purpose

This investigation was conducted to determine if any recognized environmental conditions exist on the Subject Property. Recognized environmental conditions are defined by the American Society of Testing and Materials (ASTM) as the presence or likely presence of any hazardous substance or petroleum product on a property under conditions that indicate an existing, past or material threat of release into the structures, ground, groundwater, or surface water located on the Subject Property. Emphasis has been placed upon identifying the potential presence of petroleum products, hazardous or otherwise toxic materials, or waste on the Subject Property and adjacent properties.

1.2 Involved Parties

Use of this report and reliance thereon is authorized to **Thomas Iller** and **Patrick Kelley**.

2.0 SCOPE OF INVESTIGATION

The scope of this investigation included the following:

1. Performing a site reconnaissance to identify the current conditions and land use of the Subject Property and adjoining properties. Visual evidence of prior uses of the Subject Property and adjoining properties were noted. The Site reconnaissance included a visual inspection of the Subject Property surface and perimeter.

2. Researching historical land use of the Subject Property and vicinity by reviewing available resources such as historical aerial photographs, USGS maps, fire insurance maps, city directories, local building department records, local planning department records, and any other reasonably ascertainable maps and data.

3. Obtaining and reviewing a database search of pertinent federal, state, and local regulatory agency databases concerning environmental conditions on and in the vicinity of the Subject Property. As specified in the ASTM standard for the following databases were searched using, at a minimum, the ASTM search radius:

    - Federal NPL site list,
    - Federal CERCLIS site list,
    - Federal RCRA CORRACTS TSD facilities list,
    - Federal RCRA non-CORRACTS TSD facilities list,
    - Federal RCRA generators list,
    - Federal ERNS list,
    - California state lists of hazardous waste sites identified for investigation or remediation (Cal-Sites, Cortese, TOXIC PITS),
    - California state equivalent NPL sites list (Cal-Sites, BEP),
    - California state equivalent CERCLIS sites list (Cal-Sites, TOXIC PITS),
    - California state landfill and/or solid waste disposal site lists (Cortese, SWF/LF),
    - California state leaking underground storage tank site lists (Cortese, LUST), and
    - California State registered underground storage tank site lists (UST).

4. Contacting and interviewing knowledgeable persons, such as property owners, managers, as well as representatives of local government agencies regarding historical site use and current site conditions, if possible.

5. Evaluation of the presence of recognized environmental conditions at the Subject Property through visual observation and research of reasonably ascertainable records. Recognized environmental conditions may include the presence of hazardous materials, petroleum products, underground storage tanks, above ground storage tanks, drums, chemical containers, polychlorinated biphenyls, liquid or solid wastes, water wells, oil wells, and areas indicative of potential contamination including stained soils and/or pavement, stressed vegetation, drains, sumps, pits, ponds, lagoons, odors, and septic systems.
6. Preparing a report presenting the results of the investigation.

This investigation does not include an assessment for the potential presence of methane or the sampling and testing of soil and groundwater.

3.0 SITE OVERVIEW

The Subject Property covers approximately 33 acres located south of Hobson Way and north of Interstate 10 freeway, in the City of Blythe, County of Riverside, California. Approximately 26 acres of the Site are actively occupied for crop row cultivation, while the remaining 7 acres consist of perimeter access roads and irrigation channels. The said channels are operated and maintained by Palo Verde Irrigation District (PVID). The on-site agricultural operations have been representative of the Property use since 1948. A likely residential structure associated with these operations occupied the northeast corner of the site until 1976. There are no visible surface remnants of this demolished structure. A more detailed description of the current conditions is provided in the Site Inspection narrative of Section 6.0.

4.0 PREVIOUS LAND USE

A review of historic aerial photographs (Appendix E) and U.S. Geological Survey topographic maps (Appendix D) indicate that the Subject Property has served for agricultural uses since at least 1948. The former agricultural fields associated with the Site may have covered a larger extent until the 1960s, when construction of Interstate 10 to the south appears to have resulted in right-of-way dedications truncating the southernmost portion of the fields. Moreover, from 1948

to 1976 a structure, or small group of structures, occupied the northeast corner of the Site, with access from Highway 60 (Hobson Way) on the north. Currently there are no visible surface remnants of this former structure(s).

The USGS topographic map from 1970 and 1986 (Blythe, CA 7.5-minute Quadrangle) identifies two small structures at the northeast corner of the site, which have since been demolished, as noted above. Other than the adjacent *C Canal* operated by PVID, no other topographic or geologic features are mapped in relation to the Property.

5.0 ENVIRONMENTAL SETTING

The following sections provide an overview of the regional and local geologic setting, including information pertaining to groundwater conditions in the vicinity of the Subject Property. The geotechnical hazard information discussions (faults, landslides, etc.) in this investigation are based on publicly available government sources, such as databases and final plans; however, these discussions do not constitute a geotechnical investigation of the Subject Property and should not be taken as such.

The use of Geographic Information Systems (GIS) were implemented to overlay the Subject Property over various geospatial layers derived from official government databases, including County of Riverside, United States Geological Survey, Alquist-Priolo and California Department of Conservation.

5.1 Geology

The Subject Property is located in the Palo Verde Valley, which sits between the Palo Verde Mesa to the west, the Big Maria Mountains to the north, and the Dome Rock Mountains to the east. The dominant geologic feature in the Blythe area is the north-trending depression known as the Colorado River Trough, formed by flooding of the Colorado River, regional faulting, down-warping and sediment filling. As such, the vicinity is underlain by Quaternary-age alluvium composed of recent floodplain salt, silt, and clay deposited primarily by the Colorado River.

Fault zones identify the known segments of California's fault systems. The Alquist-Priolo Fault Zones geospatial database is set forth to assist in development of rational land use decision-

making on and around the State's many known faults. These zones do not show all potentially active faults and are based on best available data. According to the Riverside County records, the nearest fault line/fault zone occurs approximately 5 miles northeast of the Site, corresponding to a segment of the Blythe Fault. The official Alquist-Priolo database does not identify any features in the Blythe vicinity.

According to the United States Department of Agriculture (USDA) – *Soil Survey of Palo Verde Area, California*, the Property is underlain by five soil types: Holtville silty clay (Hc), Cibola silty clay loam (Cs), Gilman silty clay loam (Gc), Ripley silty clay loam (Rc), and Meloland fine sandy loam (Md). Based on the USDA hydrologic soils group classification, these five on-site soils are deemed to be part of Group C, which are characterized by moderately high runoff potential with somewhat restricted infiltration capacity. Group C soils typically have between 20 percent and 40 percent clay and less than 50 percent sand and have loam, silt loam, sandy clay loam, clay loam, and silty clay loam textures. Some soils having clay, silty clay, or sandy clay textures may be placed in this group if they are well aggregated, of low bulk density, or contain greater than 35 percent rock fragments.

5.2 Surface and Groundwater Conditions

5.2.1 Surface Water

The western, northern, and eastern sides of the Property are framed by earthen irrigation ditches operated by PVID. These facilities accept irrigation water from at least two slide gates at the adjoining *C Canal*, located east of the property. At the time of inspection, the northern and western ditches contained approximately 1 foot of water, while the eastern ditched appeared dry. The purpose of these man-made facilities is in part to serve the cultivated row crop area. As observed, these features do not appear to be natural or associated with any natural stream or river. The off-site *C Canal* is one of the primary irrigation canals conveying Colorado River water to agricultural properties in the region.

5.2.2 Groundwater

The Property is underlain by the Palo Verde Mesa Groundwater Basin, which is known to have generalized groundwater depths ranging from 2.9 to 22 feet below bround surface (PVID 2002).

6.0 RESULTS OF INVESTIGATION

The results of the Site reconnaissance and inspection of adjacent property conditions, agency list review, aerial photograph analysis, and Site history and land use study are presented in the following sections.

6.1 Site Inspection

MSA Consulting, Inc. conducted a reconnaissance of the Subject Property on the morning of October 7, 2020. Site access and the sequence of observations commenced from near the northeast corner of the Property and continued in a clockwise direction along the easterly, southerly, westerly, and northerly edges. MSA relied on aerial photographs and Assessor's parcel maps to visually distinguish the Property from its surroundings. Visual observations of the ground and surrounding conditions were noted and photographed accordingly. A representative portion of those photographs is provided in Appendix F. A completed Site Assessment Checklist is located at the end of this section.

The reconnaissance was conducted after gathering preliminary information on the Site's prior or uses. From this research, it was found that row crop cultivation was the primary use of the Property since at least 1948. Moreover, from 1948 to 1973, a small structure, likely residential, occupied the northeast corner of the Site. As such, Site observations placed an emphasis on identifying visible indicators of the current farmland uses, related facilities, and former structures.

Cultivated Area

At the time of observation, approximately 26 acres out of the 33-acre Property consisted of active row crop cultivation on level ground. The visible plantings were observed at an early

growth stage, measuring approximately 8 inches in height. Records obtained from the Riverside County Agricultural Commissioner's Office indicated that on-site crop was either cotton or alfalfa. Other than the furrows or flood irrigation channels, no above-ground pipes, fixtures, pumps, or other forms of mechanical irrigation equipment were noted in the cultivated area. Moreover, no fertilizer or related chemical storage was observed in any quantity across any portion of the Property. The early growth stage of the crop allowed for clear visual observation of the surface soil conditions across the cultivated area, which did not reveal signs of contamination, trash deposits, stains, or other conditions constituting a potential recognized environmental condition.

Property Edges and Irrigation Ditches

The western, northern, and eastern edges of the Property are distinguished by the presence of dirt access roads and earthen irrigation channels (ditches) serving the cultivated area. These edge areas represent the remainder 7 acres of the 33-acre Property. For purposes of this discussion, the irrigation ditches will be colloquially identified and described based on their location in relation to the Property, being the "northern ditch", the "western ditch", and the "eastern ditch". Technically, the northern and western ditch are one connected facility, but are described separately due to their different conditions. These irrigation ditches are sourced from the *C Canal*, located immediately east of the Property with a north-to-south drainage direction. Operated by Palo Verde Irrigation District (PVID), *C Canal* is considered one of the primary facilities conveying Colorado River water to serve various agricultural properties along its path.

Northern Ditch: One slide gate at the northeast corner of the Property controls inflow from *C Canal* into the northern ditch that travels east-to-west for approximately 1,250 feet. The northern ditch visibly measures approximately 15 feet in width and 6 feet in depth. Two dirt crossings, supported by concrete culverts, allow access from Hobson Way into the cultivated area. One dirt crossing is located at the northeast corner of the Property and the second is located closer to the mid-point of the northern boundary. At the time of inspection, the water surface depth was estimated at 1 foot. Other than one discarded vehicle tire, the northern ditch did not exhibit any obstructions, trash or debris accumulation, or other forms of unauthorized discharges. A metal-

framed advertising structure (billboard maintained by Lamar) is installed near the mid-point culvert crossing, just south of the northern ditch. The billboard does not appear to have illumination or other electrification facilities.

Western Ditch: This ditch is technically an extension of the northern ditch, with a length of approximately 1,000 feet along the western edge of the Property. Due to the lack of fencing or other property delineation markers, it isn't clear how much of the western ditch actually occurs on-site. The northernmost 500 feet of the western ditch is visibly open with similar conditions to the northern ditch. However, at the mid-point of the western ditch, conditions change due to the presence of dense vegetation and mature trees. As such, the southernmost 500 feet of the ditch are not clearly observable due to vegetation coverage. There are various facilities indicating that the western ditch also serves the adjoining agricultural property to the west. Other than the vegetation coverage and wind-blown trash, there were no visible conditions of concern along this western facility.

Eastern Irrigation Ditch: The eastern ditch measures approximately 800 feet in length, being parallel to the eastern Property boundary line. One slide gate mechanism allows flows from *C Canal*, through a culvert and into the rip-rap northernmost portion of the ditch. At least four slide gates are constructed along the western slope of the ditch to allow flood irrigation into the cultivated area. At the time of inspection, this ditch was observed absent of any standing or running water. At the south-end of this channel, a small area exhibited indicators of a recent vegetation fire involving short grasses. No burnt structures, equipment, or other materials were noted.

Based on public agency communication described in Section 6.3.2 of this report, the described irrigation facilities are operated by Palo Verde Irrigation District (PVID). As previously mentioned, the visual observations did not benefit from survey-grade boundary maps or detailed PVID facility plats that would typically help determine whether the irrigation ditches occur on- or off-site.

Site Inspection Checklist:

	Question	Finding	
1	Is the Property or any adjoining Property used for an industrial use? Comment: **Adjacent uses include farmland, irrigation channels, and roadways.**	Yes No Unknown	☐ ☒ ☐
2	Is the Property or any adjoining Property used as a gasoline station, motor repair facility, commercial printing facility, dry cleaners, photo developing laboratory, junkyard or landfill, or as a waste treatment storage, disposal, processing, or recycling facility? If applicable, identify which. Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
3	Are there currently any damaged or discarded automotive or industrial batteries, pesticides, paints, or other chemicals in individual containers of >5 gal. (19 L) in volume or 50 gal. (190 L) in the aggregate, stored on, or used at the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
4	Are there currently any industrial drums (typically 55-gal. (208 L)) or sacks of chemicals located on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
5	Has fill dirt been brought onto the Property that originated from a contaminated site or that is of an unknown origin? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
6	Are there currently any pits, ponds, or lagoons located on the Property in connection with waste treatment or waste disposal? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
7	Is there currently any stained soil or other surface staining on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
8	Are there currently any registered or unregistered storage tanks (above or underground) located on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
9	Are there currently any vent pipes, fill pipes, or access ways indicating a fill pipe protruding from the ground on the Property or adjacent to any structure located on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
10	Does the Property appear to discharge wastewater in or adjacent to the Property other than storm water? Comment: **No wastewater discharge or conveyance observed. The site is served by irrigation facilities (ditches, pipes, slide gates) sourced from the adjoining C Canal.**	Yes No Unknown	☐ ☒ ☐

	Question	Finding	
11	To the best of your knowledge, have any hazardous substances or petroleum products, unidentified waste materials, tires, automotive or industrial batteries or any other waste materials been dumped above ground, buried and/or burned on the Property? Comment: **No hazardous substances, petroleum products, or waste materials were noted. One vehicle tired was noted at the bottom of the northern irrigation channel. Miscellaneous trash and debris were observed within the irrigation channels.**	Yes No Unknown	☒ ☐ ☐
12	Is there any evidence of Below Ground Storage Tanks on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
13	Is there any evidence of soil or groundwater contamination observed on the Property? Comment: **Not observed.**	Yes No Unknown	☐ ☒ ☐
14	Are there Above Ground Storage Tanks on the Property? Comment: **None**	Yes No Unknown	☐ ☒ ☐
15	Is there evidence that the Property or neighborhood properties have engaged in storing, transporting or producing waste, chemicals or hazardous substances? Comment: **Not observed on-site. The adjoining property to the west appears to involve the handling of petroleum products to serve farm-related equipment.**	Yes No Unknown	☐ ☒ ☐
16	Has the Property been used for agricultural purposes in the past ten (10) years? Comment: **Yes, currently being cultivated with row crops.**	Yes No Unknown	☒ ☐ ☐
17	Are there any noticeable pesticide odors? Comment: **None**	Yes No Unknown	☐ ☒ ☐
18	Are there noticeable signs of straining or stressed vegetation? Comment: **The site is actively being cultivated. The only form of stressed vegetation noted is attributed to perimeter controls (access paths).**	Yes No Unknown	☐ ☒ ☐
19	Is there any evidence of water wells, in use or abandoned, on the Property? Comment: **None**	Yes No Unknown	☐ ☒ ☐
20	Is there any evidence of streams, lakes, pits, ponds, lagoons or any other standing or moving water visible on the Property? Comment: **The western, northern, and eastern edges of the Property have irrigation facilities consisting of active channels. The source of irrigation water is the adjacent C Canal.**	Yes No Unknown	☒ ☐ ☐
21	Are any transformers, electrical devices or hydraulic equipment observed on the Property labeled as containing PCBs? Comment: **None**	Yes No Unknown	☐ ☒ ☐
22	Is there reason to suspect that radon may be a problem in the Property's location? Comment: **None**	Yes No Unknown	☐ ☒ ☐

23	Were any physical signs of the following observed on the Property? Oily Sheen on Water Suspected Lead Hazard Waste Sites Suspected Asbestos Electronic Magnetic Potential	 ☐ ☐ ☐ ☐ ☐

24	Were any physical signs of the following observed on an adjacent property? Oily Sheen on Water Suspected Lead Hazard Waste Sites Suspected Asbestos Electronic Magnetic Potential	 ☐ ☐ ☐ ☐ ☐

6.2 Adjacent Site and Vicinity Observations

North: Land to the north includes the east-west alignment of Hobson Way (formerly Highway 60) followed by cultivated farmland.

South: Land to the south includes Interstate 10 Freeway. A chain-link fence separates the Property from this roadway.

East: Land to the east includes an irrigation channel identified by Palo Verde Irrigation District (PVID) as C Canal.

West: Land to the west includes agricultural land with at least one residential structure and various smaller ancillary structures.

No recognized environmental conditions in regard to the Subject Property were observed on the adjacent properties.

6.3 Government Agency Database Research

A search of federal, state, and local government listings was performed by Environmental Data Resources, Inc. (EDR) for the purposes of this report. The search radius used for all databases utilized meets or exceeds the standard search distance adopted by ASTM. In the interest of thoroughness, resources from Palo Verde Irrigation District (PVID) and FEMA were also consulted for information regarding hazardous material accidents, water quality issues, and flood hazards in the vicinity of the Subject Property.

6.3.1 Results of Agency Records Search

The results of this comprehensive review showing potential, known and previously contaminated sites are listed below. The EDR findings from the multiple-database search are listed below. The results did not identify any records directly associated with the Subject Property. The EDR report incorrectly identified four sites within 200 feet of the Property, but further investigation determined that these records are actually found between 580 and 945 feet from the Property.

EDR Report Findings:

Site	Listed Address	Distance	Record Type	Status
LINDSEY HOLDING COMPANY[1]	11450 W. Hobsonway and N. Carlton Ave., Blythe, CA 92225 (EDR LOCATION ERROR)	EDR: 63 ft. NW	LUST Cortese HIST CORTESE CERS	LUST Cleanup Site Closed/Action Completed Competed Case Closed 01/30/1997
PURITAN ICE	11390 W. Hobsonway, Blythe, CA 92225 (EDR LOCATION ERROR)	EDR: 63 ft. NW	LUST Cortese HIST CORTESE CERS	Completed Case Closed 08/27/1992
ALEXS TIRE[2]	11401 W. Hobsonway, Blythe, CA 92225 (EDR LOCATION ERROR)	EDR: 65 ft. NE	EDR Hist Auto	Registered 1987 - 1990
ALEX'S TIRE[3]	1340 W. Hobsonway, Blythe, CA 92225	EDR: 163 ft. ENE	RCRA NonGen/NLR	No Violations Found
KMART	1445 W.	EDR: 754 ft.	RCRA-VSQG	Conditionally Exempt

Site	Listed Address	Distance	Record Type	Status
3881[4]	Hobsonway, Blythe, CA 92225 (EDR LOCATION ERROR)	NE		Small Quantity Generator
O'REILLY AUTO PARTS #2758	1315 W. Hobsonway, Blythe, CA 92225	EDR: 917 ft. ENE	CERS HAZ WASTE CERS RCRA NonGen/NLR	Hazardous Waste Generator No Violations Found
KMART ENTERPRISES #9228[4]	1224 W. Hobsonway, Blythe, CA 92225 (EDR LOCATION ERROR)	EDR: 1158 ft. E	HIST UST SWEEPS UST CA FID UST	
INLAND BUILDERS SUPPLY INC.	1224 W. Hobsonway, Blythe, CA 92225	Approx. 1158 ft. E	RCRA NonGen/NLR	No Violations Found
DESERT SECURITY FARMS	3116 Plant Road, Blythe, CA 92225	Approx. 1319 ft. ENE	LUST Cortese HIST CORTESE CERS	LUST Cleanup Site Completed Case Closed 08/26/1996 No Violations Found
BILL LEWIS	6490 North C&D Boulevard, Blythe, CA 92225	Approx. 1412 ft. ENE	LUST Cortese HIST CORTESE CERS	LUST Cleanup Site Completed Case Closed 09/09/1998
FORD DRY LAKES JOJOB	Chuckwalla Valley Road, Blythe, CA 92225	Approx. 1412 ft. ENE	LUST CERS HAZ WASTE CERS	LUST Cleanup Site Completed Case Closed 10/10/1996
USA SELF SERVICE / DOUGLAS	1147 W. Hobsonway, Blythe, CA	Approx. 1432 ft. ENE	LUST Cortese CERS	LUST Cleanup Site Open – Inactive 11/14/2017

Site	Listed Address	Distance	Record Type	Status
STA	92225			
JM DEFOREST	12300 W. Hobsonway, Blythe, CA 92225	Approx. 1689 ft. WNW	HIST CORTESE LUST Cortese CERS	LUST Cleanup Site Completed Case Closed 02/24/2015
UNOCAL STATION #5882	301 Lovekin Boulevard S., Blythe, CA 92225	Approx. 2585 ft. ESE	LUST Cortese ENF HIST CORTESE CERS	LUST Cleanup Site Completed Case Closed 03/20/2018
QUIK CHEK LOVEKIN	301 S. Lovekin Boulevard, Blythe, CA 92225	Approx. 2585 ft. ESE	LUST EMI	(UNOCAL #5883) Completed – Case Closed as of 03/20/2018
UNOCAL SERVICE STATION #5882	301 S. Lovekin Boulevard, Blythe, CA 92225	Approx. 2585 ft. ESE	Notify 65	No Violations Found
E-Z SERVICE NO. 100885	738 W. Hobsonway, Blythe, CA 92225	Approx. 2888 ft. E	Notify 65	No Violations Found
E.Z. MARTE #2	295 N. Lovekin Boulevard, Blythe, CA 92225	Approx. 2930 ft. ENE	Notify 65	No Violations Found
COMMUNIC A-TIONS	260 N. Spring, Blythe, CA 92225	Approx. 5082 ft. ENE	LUST Cortese Notify 65	LUST Cleanup Site Completed – Case Closed 08/28/1992
PALO VERDE IRRIGATIO N DISTRICT	180 14th Street W., Blythe, CA 92225	Approx. 5231 ft. ESE	LUST CPS-SLIC HIST UST EMI Notify 65	Facility Status: Open – Eligible for Closure (11/21/2019) Cleanup Program Site

1. Lindsey Holding Company NW Corner of W. Hobsonway and N. Carlton Ave., Blythe, CA 92225. Estimated distance from Property is approximately 945 ft. NE.
2. Alexs Tire actual address is 1340 W. Hobsonway, Blythe, CA 92225. Estimated distance from Property is approximately 580 ft. E.
3. Alex's Tire estimated distance from Property is approximately 580 ft. E.
4. KMART Enterprises #9228's address is 1455 W. Hobsonway, Blythe, CA 92225. Estimated distance from Property is Approximately 210 ft. NE.

Riverside County Public Land Use System (PLUS) Online Records

MSA Consulting reviewed the parcel history (APN 836-100-007) within Riverside County's Public Land Use System (PLUS) portal to identify building and safety department cases that may yield more information about the prior uses. The search based on APN and address did not yield any permit, plan, inspection, or code case in connection with the Property. It is possible that these records simply have not been entered into the PLUS portal and therefore not available in this format.

6.3.2 Agencies

MSA reviewed information, as available, from the agencies listed below during the course of this investigation:

A. Palo Verde Irrigation District (PVID)

The Property is located within the PVID service area, which covers approximately 189 square miles in portions of Riverside and Imperial Counties of California. A review of the agency web site did not find access to the traditional water quality reports issued by water districts. Follow-up e-mail communication was established by Victor Lujan, a PVID representative, to obtain available reports and facility maps. The maps provided by PVID pertained to irrigation delivery facilities, but did not have domestic water information.

B. FEMA

The FEMA Flood Insurance Rate Maps (FIRMs) serve as the basis for identifying potential flood hazards. According to FIRM panel 06065C3230G, effective August 28,

2008, the entire Subject Property and its surroundings are considered to be in Zone D, which has an undetermined flood risk. The same FIRM panel does not identify any Special Flood Hazard Area (SFHA) with High Flood Risk near the Property.

C. City of Blythe and Riverside County Fire Departments

The closest fire station to the Subject Property operated by the City of Blythe is located at 201 N. Commercial Street, approximately 0.8 miles to the northeast. Under the Riverside County Fire Department operations, the closest facility is Station 43, located at 140 W. Barnard Street, which is approximately mile to the northeast. On the morning of October 8, 2020, telephone calls were made to both fire station facilities to inquire about emergency calls related to hazardous materials on or around the property. Of particular interest was the specific request to find out more information about the burnt grass at the south-end of the eastern irrigation ditch, in the event that fire department response had been involved. Based on the provided site address and parcel number information, the staff of both facilities was not able to disclose information about the site.

C. Riverside County Agricultural Commissioner

MSA reviewed the web mapping application platform maintained by the County of Riverside, as it pertains to the Agricultural Commissioner's Agricultural Crop records. These records revealed that 26 acres out of the Property have been cultivated for corn, cotton, and possibly alfalfa. No additional information. Based on site observations, the most likely current crop is cotton or alfalfa.

United States Environmental Protection Agency

MSA performed a database search for the property within the Enforcement and Compliance History Online (ECHO), which provides integrated searches of EPA and state data for more than 800,000 regulated facilities. The database focuses on inspection, violation, and enforcement data for the Clean Air Act (CAA), Clean Water Act (CWA) and Resource Conservation and Recovery Act (RCRA) and also includes Safe Drinking

Water Act (SDWA) and Toxics Release Inventory (TRI) data. The results did not identify any records or facilities in connection with the Property.

GeoTracker

MSA performed a database search for the property within GeoTracker, which is a database maintained by the State of California Water Resources Control Board to provide online access to environmental data. It serves as the management system for tracking regulatory data on sites that can potentially impact groundwater, particularly those requiring groundwater cleanup and permitted facilities, such as operating underground storage tanks and land disposal sites.

The search results did not identify any Leaking Underground Storage Tank (LUST), Cleanup Program, Hazardous Waste, or Permitted Underground Storage UST) sites in connection with the property.

6.3.3 Evaluation of Records and Environmental Liens Search Results

A search for Environmental Liens (Federal Superfund Liens, CERCLA Lien Information, and Environmental Liens Listings) also did not yield any findings in connection with the Subject Property. The records search results do not indicate a recognized environmental condition on the subject property.

6.4 Results of Aerial Photo Analysis

Aerial photographs can often be a valuable source of information in the assessment of historical land usage. However, it should be understood that information extrapolated from photographic images is strictly an interpretation and not necessarily fact. For this reason, it may not be appropriate to draw all conclusions regarding previous Site activities based solely upon aerial photograph analysis.

MSA performed a review of historical aerial photographs in order to provide an assessment of historical land usage on and in the vicinity of the Subject Property. Aerial photographs with coverage of the Site and vicinity were obtained from EDR for the years 1948, 1951, 1959, 1961, 1973, 1976, 1981, 1994, 2006, 2009, 2012, and 2016. An assessment is included below. Copies of these photographs are provided in Appendix E.

1948, 1951, 1959, and 1961

In the context of the aerial photography from these years, the Property is mostly occupied by cultivated farmland with row crops. One or two structures with mature tree plantings are noted at the northeast corner of the Site. The surrounding context includes Highway 60 to the north and *C Canal* to the east. Surrounding land uses include farmland and a drive-in theater facility.

1973

By 1973, Interstate 10 was constructed south of the Property, apparently resulting in land dedication toward this transporation corridor, such that the former agricultural field extent was truncated on the south. On-site cultivation patterns and existing structures appear unchanged.

1976

By 1976, the mentioned structures and mature trees were demolished, resulting in a cultivation area that remained relatively unchanged until the present moment.

1981, 1994, 2006, 2009, 2012, 2016

From 1981 to 2016, there were no discernable changes to the field crop operations or other site conditions. It is believed that a variety of row crops were cultivated across the years, but that level of detail is not discernable in aerial imagery.

6.5 United States Geological Survey (USGS) Topographic Maps

The USGS topographic map from 1970 and 1986 (Blythe, CA 7.5-minute Quadrangle) identifies two small structures at the northeast corner of the Site, which have since been demolished. In the context of this map, the Property elevation ranges from 271 to 274 feet above sea level. Other than the adjacent *C Canal* operated by PVID, no other topographic or geologic features are mapped on or near the Property (see Appendix D).

6.6 Fire Insurance Maps

Fire Insurance Maps provide information on structure locations and operations which were present at the time of the survey. These maps were completed for most major cities and metropolitan areas, dating from 1867, and provide information into past usage of buildings and the manner in which commercial and industrial zoning has changed over time. EDR reports that no Sanborn Fire Insurance map coverage is available for the Subject Property (Appendix H).

6.7 Owner's Statement and User Questionnaire

MSA engaged in reasonable attempts to contact the existing owners of the Property as well as the intended report users. The completed Owner's Statement and User Questionnaire obtained did not reveal additional knowledge from the parties reached of any known or potential recognized environmental conditions, including environmental cleanup liens, activity and land use limitations, contamination or hazardous materials (Appendix I).

7.0 DISCUSSION OF POTENTIAL ENVIRONMENTAL CONCERNS

The following discussions of potential environmental concerns are presented to inform the client as to the existence, or lack thereof, of recognized environmental conditions present on the Subject Property.

7.1 Regulatory Actions

Based upon a thorough search of available federal, state, and local records, no current regulatory action is pending with respect to the Subject Property.

7.2 Adjacent and Nearby Properties

The Property is located within a commercial land use designation of the City, but has historically served as farmland. Neighboring properties include farmland to the north, an irrigation channel and vacant land to the east, Interstate 10 Freeway to the south, and farmland to the west. No evidence of recognized environmental conditions was observed on adjoining properties during site reconnaissance or as a result of the records search.

7.3 Polychlorinated Biphenyls

No sources of polychlorinated biphenyls (PCBs) were noted on the Site. No other information related to the use, storage, or release of PCBs was identified during this investigation.

7.4 Underground Storage Tanks

Based on our review of the EDR Radius Report, no underground storage tanks (USTs) are reported to be located on the Subject Property currently nor are USTs reported to have been located on the site in the past.

7.5 Above Ground Storage Tanks

Based on the EDR Radius Report findings and historic aerial photographs, no above ground storage tanks (ASTs) are reported to be currently located on the Subject Property, nor are ASTs reported to have been located on the Subject Property in the past. Such facilities were not identified during the Site visit.

7.6 Stormwater / Wastewater Discharge

No evidence of wastewater or non-stormwater discharge was observed on the Subject Property. The western, northern, and eastern edges of the Property are framed by earthen irrigation canals operated by PVID. These facilities convey irrigation water from an off-site canal (C Canal) in a controlled manner for flood irrigation. No visual evidence of stormwater runoff or wastewater discharge was noted. The Site may accept stormwater runoff (sheet flow) from the adjacent Interstate 10 Freeway on the south, and Hobson Way on the north. Both roads have dirt shoulders sloping toward the Property. Along Hobson Way, one curb opening is installed to convey street runoff toward the property.

7.7 Asbestos Containing Materials

No direct evidence of potential asbestos containing materials was observed on the Subject Property and no information was found which would indicate the use, storage or disposal of such material on the Subject Property.

7.8 Lead-Based Paints

No information was found which would indicate the storage or disposal of lead based paints on the Subject Property. Testing for lead-based paint is beyond the scope of this investigation.

7.9 Landfills

The EDR report does not list any known landfills or solid waste disposal sites on the subject property. Moreover, there are no known, planned or designated landfills or solid waste disposal sites designated on or near the Property.

7.10 Water Supplies

Domestic water services to the Property are provided by PVID. No water wells were identified on the Property. No Riverside County Department of Environmental Health water well permits are mapped on-site or in the immediate surroundings. The mentioned irrigation canals convey water to serve the on-site cultivation area.

7.11 Waste Generation and Storage

As observed, the site is absent of any trash or debris accumulation.

8.0 FINDINGS

8.1 General Site Information

No sites, including the Subject Property, which are considered capable of directly affecting the environmental conditions of the Subject Property were identified on available federal, state, and local listings examined to date.

8.2 Recognized Environmental Conditions

Recognized environmental conditions are defined by the American Society of Testing and Materials (ASTM) practice E1527-13 as the presence or likely presence of any hazardous substances or petroleum products in, on, or at a Property due to any release to the environment;

under conditions indicative of a release to the environment; or under conditions that pose a material threat of a future release to the environment.

It should be noted that no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a Property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a Property. An appropriate inquiry does not constitute an exhaustive assessment of a Property. This practice recognizes reasonable limits of time and cost.

9.0 LIMITATIONS / DATA GAPS

This investigation is based upon the Subject Property as described and the environmental data obtained from the field reconnaissance and research performed as outlined in this report. A data gap is a lack of or inability to obtain information required by this practice despite good faith efforts by the environmental professional to gather such information. Data gaps may affect the ability to identify recognized environmental conditions and are generally only deemed significant if other information and/or professional experience raises reasonable concerns. Since our investigation is based upon visual inspection, as well as consultation with various agencies, the conclusions presented herein are professional opinions. These opinions have been derived in accordance with current standards of practice, and no warranty is expressed or implied.

Data Gaps:

- Lack of building, demolition, and disposal records associated with the former structures formerly located at the northeast corner of the Property. These facilities were demolished and cleared prior to 1976.
- Lack of visible Property corner monuments or survey-grade maps to determine the extent of which the PVID irrigation ditches are found on-site versus adjoining properties or public right-of-way.
- The western edge of the property is potentially part of an area with dense vegetation coverage. Only through a more accurate boundary calculation would the determination be made.

The above-listed data gaps do not raise reasonable concerns or affect the ability to identify a recognized environmental condition.

10.0 CONCLUSIONS

MSA Consulting, Inc. has performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E 1527-13. The Assessment did not identify recognized environmental conditions, controlled recognized environmental conditions, or historical recognized environmental conditions in connection with the Subject Property.

11.0 OPINION REGARDING FURTHER INQUIRY

No further inquiry is recommended for this Phase 1 Report.

12.0 USER RESPONSIBILITIES

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001, the user must provide the information requested in Appendix I to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

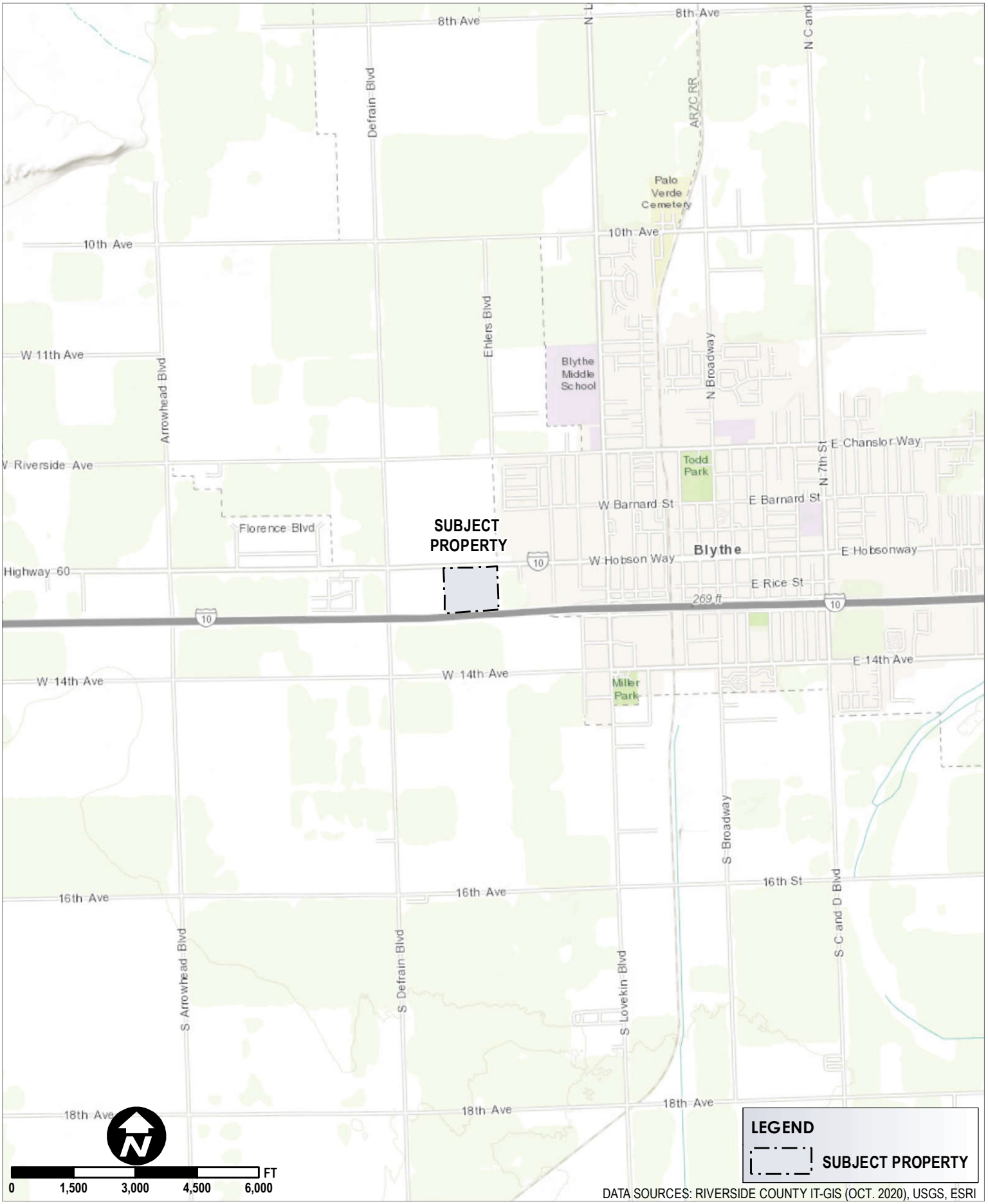
13.0 ENVIRONMENTAL PROFESSIONAL STATEMENT

MSA Consulting, Inc. declares that, to the best of our professional knowledge and belief, we meet the definition of Environmental professional as defined in Section 312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Prepared by: Michelle D. Witherspoon, Registered Environmental Property Assessor (REPA #897425)

Appendix A

Vicinity Map



DATA SOURCES: RIVERSIDE COUNTY IT-GIS (OCT. 2020), USGS, ESRI

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

PHASE I ESA
VICINITY MAP

DATE: 10/13/2020

Appendix B

Assessor's Parcel Map



DATA SOURCES: RIVERSIDE COUNTY IT-GIS (OCT. 2020), USGS, ESRI

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> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

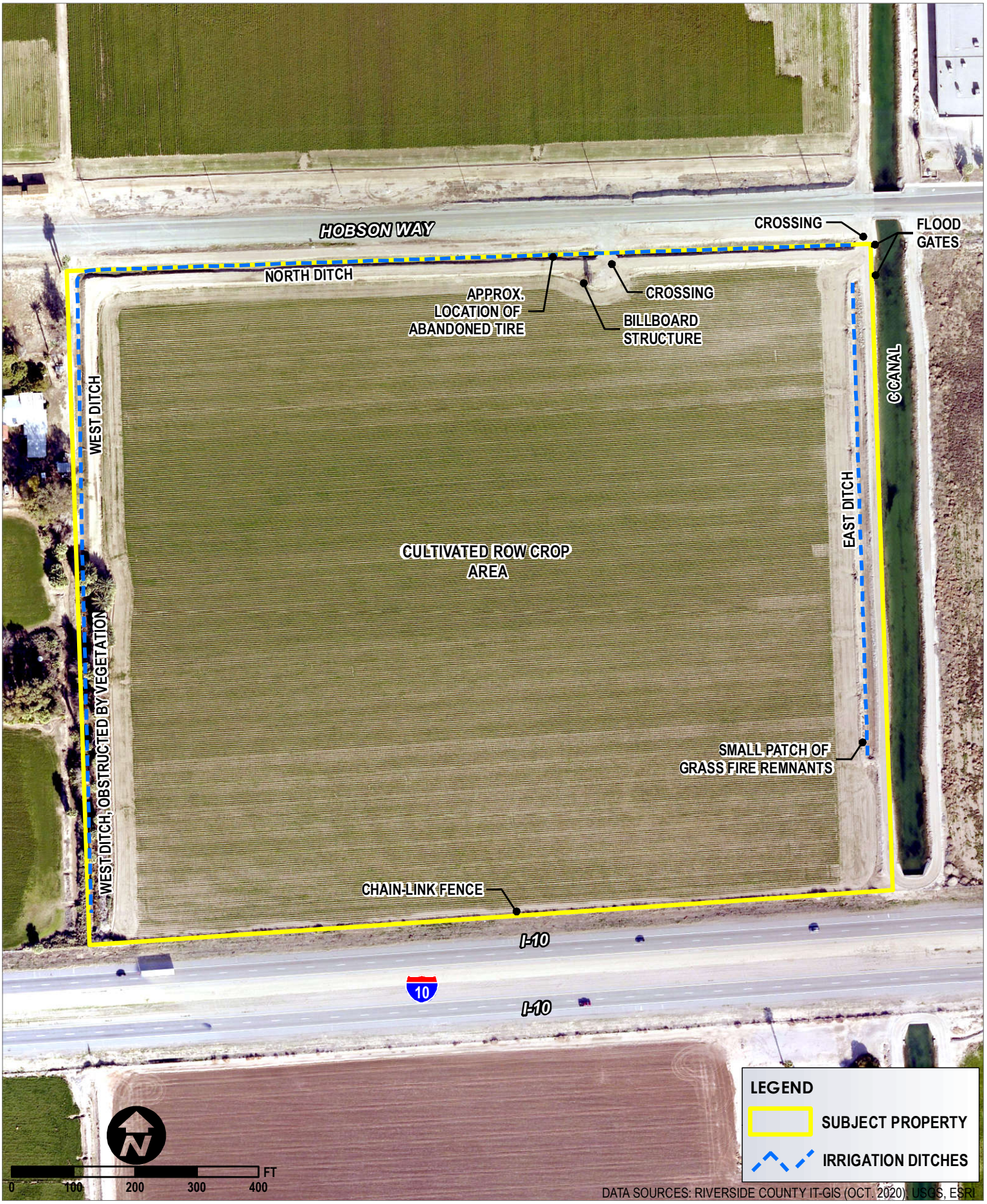
PHASE I ESA

ASSESSOR'S PARCEL MAP

DATE: 10/13/2020

Appendix C

Aerial Photograph and Site Observations Map



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> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

PHASE I ESA

AERIAL PHOTOGRAPHS AND SITE OBSERVATIONS

DATE: 10/13/2020

Appendix D

USGS Topographic Map



DATA SOURCES: RIVERSIDE COUNTY IT-GIS (OCT. 2020), USGS, ESRI

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

PHASE I ESA

USGS TOPOGRAPHIC MAP

DATE: 10/13/2020

Appendix E

Historical Aerial Photographs

11625 W. Highway 60

11625 W. Highway 60

Blythe, CA 92225

Inquiry Number: 6213158.5

October 02, 2020

The EDR Aerial Photo Decade Package

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

EDR Aerial Photo Decade Package

10/02/20

Site Name:

11625 W. Highway 60
11625 W. Highway 60
Blythe, CA 92225
EDR Inquiry # 6213158.5

Client Name:

MSA Consulting, Inc.
34200 Bob Hope Drive
Rancho Mirage, CA 92270
Contact: Asia Lee

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	Scale	Details	Source
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=500'	Acquisition Date: May 21, 1994	USGS/DOQQ
1981	1"=500'	Flight Date: May 24, 1981	USDA
1976	1"=500'	Flight Date: May 26, 1976	USGS
1973	1"=500'	Flight Date: April 28, 1973	USDA
1961	1"=500'	Flight Date: May 16, 1961	USDA
1959	1"=500'	Flight Date: June 09, 1959	USDA
1951	1"=500'	Flight Date: January 05, 1951	FAIR
1948	1"=500'	Flight Date: July 26, 1948	USGS

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.

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INQUIRY #: 6213158.5
YEAR: 2016
= 500'
N
EDR

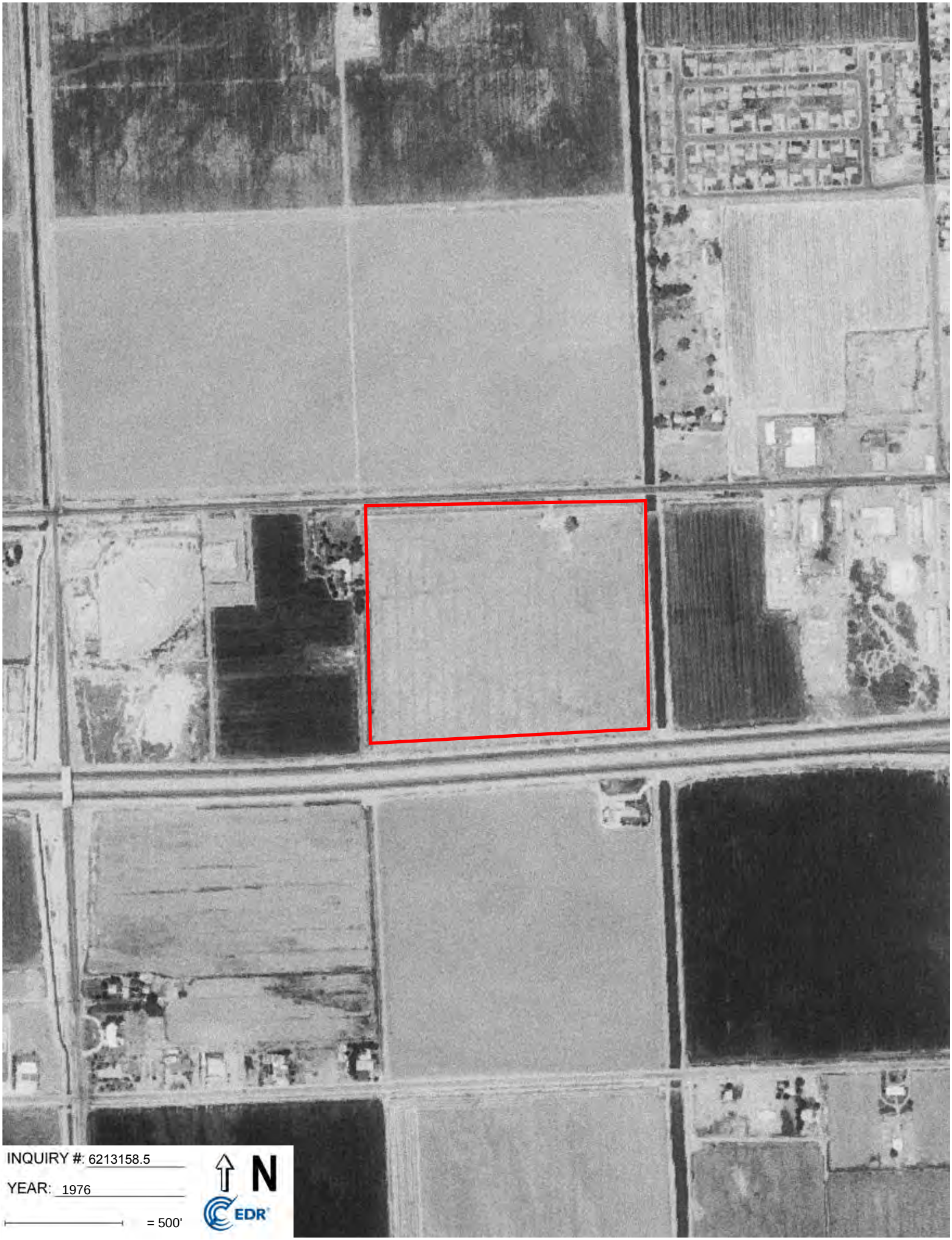

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YEAR: 2012
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N
EDR


INQUIRY #: 6213158.5
YEAR: 2009
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 2006
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1994
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1981
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1976
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1973
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1961
= 500'
N
EDR



INQUIRY #: 6213158.5

YEAR: 1959

= 500'

N

EDR


INQUIRY #: 6213158.5
YEAR: 1951
= 500'
N
EDR


INQUIRY #: 6213158.5
YEAR: 1948
= 500'
N
EDR

Appendix F

Site Visit Photographs

Phase I ESA Site Reconnaissance

Contact Information	
Date	10/07/2020
Times of Observation	11:00 AM
MSA Representative Name(s)	Michelle Witherspoon and Jesus Herrera Cortes
MSA Representative Phone Number	(760) 320-9811

Purpose of Site Observation

Perform a visual observation of the Site without resulting in physical disturbance to the ground surface conditions.
















2 for $2
Mix & Match
Two is better than one
2 for $2
Sausage Biscuit
Sausage McMuffin
LAMAR




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STATE OF CALIFORNIA
DEPT OF PUBLIC WORKS-DIV OF HIGHWAYS































Appendix G

EDR Radius Map Report

11625 W. Highway 60
11625 W. Highway 60
Blythe, CA 92225

Inquiry Number: 6213158.2s
October 02, 2020

The EDR Radius Map™ Report with GeoCheck®

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

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Detail Map	3
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Map Findings	9
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GEOCHECK ADDENDUM

Physical Setting Source Addendum	A-1
Physical Setting Source Summary	A-2
Physical Setting SSURGO Soil Map	A-5
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Physical Setting Source Records Searched	PSGR-1

Thank you for your business.
Please contact EDR at 1-800-352-0050
with any questions or comments.

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EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

11625 W. HIGHWAY 60
BLYTHE, CA 92225

COORDINATES

Latitude (North):	33.6084560 - 33° 36' 30.44''
Longitude (West):	114.6164350 - 114° 36' 59.16''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	721151.7
UTM Y (Meters):	3721097.8
Elevation:	267 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	5620020 BLYTHE, CA
Version Date:	2012
Northeast Map:	5619982 BLYTHE NE, CA
Version Date:	2012
Southwest Map:	5620024 RIPLEY, CA
Version Date:	2012
Northwest Map:	5619998 MCCOY WASH, CA
Version Date:	2012

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140516, 20140530
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
11625 W. HIGHWAY 60
BLYTHE, CA 92225

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
A1	LINDSEY HOLDING COMP	11450 W HOBSONWAY	LUST	Higher	63, 0.012, NW
A2	PURITAN ICE	11390 WEST HOBSONWAY	LUST, Cortese, HIST CORTESE, CERS	Higher	63, 0.012, NW
A3	LINDSEY HOLDING COMP	11450 HOBSON	LUST, Cortese, HIST CORTESE, CERS	Higher	63, 0.012, NW
4	ALEXS TIRE	11401 W HOBSON WAY	EDR Hist Auto	Higher	65, 0.012, NE
5	ALEX'S TIRE	1340 W HOBSON WAY	RCRA NonGen / NLR	Higher	613, 0.116, ENE
6	KMART 3881	1445 W HOBSON	RCRA-VSQG	Higher	754, 0.143, NE
B7	O'REILLY AUTO PARTS	1315 W HOBSONWAY	CERS HAZ WASTE, CERS	Higher	917, 0.174, ENE
B8	O'REILLY AUTO PARTS	1315 W HOBSONWAY	RCRA NonGen / NLR	Higher	917, 0.174, ENE
C9	KMART ENTERPRISES	1224 W HOBSON WAY	HIST UST	Higher	1158, 0.219, East
C10	K-MART ENTERPRISES #	1224 W HOBSONWAY	SWEEPS UST, HIST UST, CA FID UST	Higher	1158, 0.219, East
C11	INLAND BUILDERS SUPP	1224 W HOBSONWAY	RCRA NonGen / NLR	Higher	1158, 0.219, East
D12	DESERT SECURITY FARM	3116 PLANT ROAD	LUST, Cortese, HIST CORTESE, CERS	Higher	1319, 0.250, ENE
D13	BILL LEWIS	6490 NORTH C & D BOU	LUST, Cortese, HIST CORTESE, CERS	Higher	1412, 0.267, ENE
D14	FORD DRY LAKES JOJOB	CHUCKWALLA VALLEY RO	LUST, Cortese, CERS	Higher	1412, 0.267, ENE
D15	USA SELF SERVICE/DOU	1147 WEST HOBSONWAY	LUST, Cortese, CERS	Higher	1432, 0.271, ENE
16	J M DEFOREST	12300 HOBSONWAY	HIST CORTESE	Higher	1689, 0.320, WNW
E17	J M DEFOREST	12330 WEST HOBSONWAY	LUST, Cortese, CERS	Lower	2485, 0.471, West
E18	J M DEFOREST	12330 HOBSONWAY	LUST	Lower	2485, 0.471, West
F19	UNOCAL STATION #5882	301 LOVEKIN BLVD S	LUST, Cortese, ENF, HIST CORTESE, CERS	Lower	2585, 0.490, ESE
F20	QUIK CHEK LOVEKIN	301 S LOVEKIN BLVD	LUST, EMI	Lower	2585, 0.490, ESE
F21	UNOCAL SERVICE STATI	301 SOUTH LOVEKIN BO	Notify 65	Lower	2585, 0.490, ESE
22	E-Z SERVE NO. 100885	738 WEST HOBSON WAY	Notify 65	Higher	2888, 0.547, East
23	E.Z. MARTE #2	295 NORTH LOVEKIN	Notify 65	Higher	2930, 0.555, ENE
24	COMMUNICATIONS	260 NORTH SPRING	LUST, Cortese, Notify 65	Higher	5082, 0.962, ENE
25	PALO VERDE IRRIGATIO	180 14TH ST W	LUST, CPS-SLIC, HIST UST, EMI, Notify 65	Higher	5231, 0.991, ESE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL ---------- National Priority List
Proposed NPL ---------- Proposed National Priority List Sites
NPL LIENS ---------- Federal Superfund Liens

Federal Delisted NPL site list

Delisted NPL ---------- National Priority List Deletions

Federal CERCLIS list

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

Federal RCRA CORRACTS facilities list

CORRACTS ---------- Corrective Action Report

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF ---------- RCRA - Treatment, Storage and Disposal

Federal RCRA generators list

RCRA-LQG ---------- RCRA - Large Quantity Generators
RCRA-SQG ---------- RCRA - Small Quantity Generators

Federal institutional controls / engineering controls registries

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List
US INST CONTROLS ---------- Institutional Controls Sites List

EXECUTIVE SUMMARY

Federal ERNS list

ERNS ---------- Emergency Response Notification System

State- and tribal - equivalent NPL

RESPONSE ---------- State Response Sites

State- and tribal - equivalent CERCLIS

ENVIROSTOR ---------- EnviroStor Database

State and tribal landfill and/or solid waste disposal site lists

SWF/LF ---------- Solid Waste Information System

State and tribal leaking storage tank lists

INDIAN LUST ---------- Leaking Underground Storage Tanks on Indian Land
CPS-SLIC ---------- Statewide SLIC Cases

State and tribal registered storage tank lists

FEMA UST ---------- Underground Storage Tank Listing
UST ---------- Active UST Facilities
AST ---------- Aboveground Petroleum Storage Tank Facilities
INDIAN UST ---------- Underground Storage Tanks on Indian Land

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing
VCP ---------- Voluntary Cleanup Program Properties

State and tribal Brownfields sites

BROWNFIELDS ---------- Considered Brownfieds Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT ---------- Waste Management Unit Database
SWRCY ---------- Recycler Database
HAULERS ---------- Registered Waste Tire Haulers Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
ODI ---------- Open Dump Inventory
IHS OPEN DUMPS ---------- Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL ---------- Delisted National Clandestine Laboratory Register

HIST Cal-Sites ---- Historical Calsites Database
SCH ---- School Property Evaluation Program
CDL ---- Clandestine Drug Labs
Toxic Pits ---- Toxic Pits Cleanup Act Sites
US CDL ---- National Clandestine Laboratory Register
PFAS ---- PFAS Contamination Site Location Listing

Local Lists of Registered Storage Tanks

CERS TANKS ---- California Environmental Reporting System (CERS) Tanks

Local Land Records

LIENS ---- Environmental Liens Listing
LIENS 2 ---- CERCLA Lien Information
DEED ---- Deed Restriction Listing

Records of Emergency Release Reports

HMIRS ---- Hazardous Materials Information Reporting System
CHMIRS ---- California Hazardous Material Incident Report System
LDS ---- Land Disposal Sites Listing
MCS ---- Military Cleanup Sites Listing
SPILLS 90 ---- SPILLS 90 data from FirstSearch

Other Ascertainable Records

FUDS ---- Formerly Used Defense Sites
DOD ---- Department of Defense Sites
SCRD DRYCLEANERS ---- State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR ---- Financial Assurance Information
EPA WATCH LIST ---- EPA WATCH LIST
2020 COR ACTION ---- 2020 Corrective Action Program List
TSCA ---- Toxic Substances Control Act
TRIS ---- Toxic Chemical Release Inventory System
SSTS ---- Section 7 Tracking Systems
ROD ---- Records Of Decision
RMP ---- Risk Management Plans
RAATS ---- RCRA Administrative Action Tracking System
PRP ---- Potentially Responsible Parties
PADS ---- PCB Activity Database System
ICIS ---- Integrated Compliance Information System
FTTS ---- FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS ---- Material Licensing Tracking System
COAL ASH DOE ---- Steam-Electric Plant Operation Data
COAL ASH EPA ---- Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER ---- PCB Transformer Registration Database
RADINFO ---- Radiation Information Database
HIST FTTS ---- FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS ---- Incident and Accident Data
CONSENT ---- Superfund (CERCLA) Consent Decrees
INDIAN RESERV ---- Indian Reservations
FUSRAP ---- Formerly Utilized Sites Remedial Action Program
UMTRA ---- Uranium Mill Tailings Sites

LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines
FINDS - Facility Index System/Facility Registry System
DOCKET HWC - Hazardous Waste Compliance Docket Listing
ECHO - Enforcement & Compliance History Information
UXO - Unexploded Ordnance Sites
FUELS PROGRAM - EPA Fuels Program Registered Listing
CA BOND EXP. PLAN - Bond Expenditure Plan
CUPA Listings - CUPA Resources List
DRYCLEANERS - Cleaner Facilities
EMI - Emissions Inventory Data
ENF - Enforcement Action Listing
Financial Assurance - Financial Assurance Information Listing
HAZNET - Facility and Manifest Data
ICE - ICE
HWP - EnviroStor Permitted Facilities Listing
HWT - Registered Hazardous Waste Transporter Database
MINES - Mines Site Location Listing
MWMP - Medical Waste Management Program Listing
NPDES - NPDES Permits Listing
PEST LIC - Pesticide Regulation Licenses Listing
PROC - Certified Processors Database
UIC - UIC Listing
UIC GEO - UIC GEO (GEOTRACKER)
WASTEWATER PITS - Oil Wastewater Pits Listing
WDS - Waste Discharge System
WIP - Well Investigation Program Case List
MILITARY PRIV SITES - MILITARY PRIV SITES (GEOTRACKER)
PROJECT - PROJECT (GEOTRACKER)
WDR - Waste Discharge Requirements Listing
CIWQS - California Integrated Water Quality System
CERS - CERS
NON-CASE INFO - NON-CASE INFO (GEOTRACKER)
OTHER OIL GAS - OTHER OIL & GAS (GEOTRACKER)
PROD WATER PONDS - PROD WATER PONDS (GEOTRACKER)
SAMPLING POINT - SAMPLING POINT (GEOTRACKER)
WELL STIM PROJ - Well Stimulation Project (GEOTRACKER)
HWTS - Hazardous Waste Tracking System
MINES MRDS - Mineral Resources Data System

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP - EDR Proprietary Manufactured Gas Plants
EDR Hist Cleaner - EDR Exclusive Historical Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF - Recovered Government Archive Solid Waste Facilities List

EXECUTIVE SUMMARY

RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.
Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

Federal RCRA generators list

RCRA-VSQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

A review of the RCRA-VSQG list, as provided by EDR, and dated 06/15/2020 has revealed that there is 1 RCRA-VSQG site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KMART 3881 EPA ID:: CAL000231587	1445 W HOBSON	NE 1/8 - 1/4 (0.143 mi.)	6	16

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

A review of the LUST list, as provided by EDR, has revealed that there are 11 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
LINDSEY HOLDING COMP Database: RIVERSIDE CO. LUST, Date of Government Version: 03/10/2020 Facility Id: 901073 Facility Status: 9	11450 W HOBSONWAY	NW 0 - 1/8 (0.012 mi.)	A1	9
PURITAN ICE Database: LUST REG 7, Date of Government Version: 02/26/2004 Database: LUST, Date of Government Version: 06/08/2020	***11390 WEST HOBSONWAY***	***NW 0 - 1/8 (0.012 mi.)***	***A2***	***9***

Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500741
Global ID: T0606500741

LINDSEY HOLDING COMP ***11450 HOBSON*** ***NW 0 - 1/8 (0.012 mi.)*** ***A3*** ***11***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 06/08/2020
Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500775
Global ID: T0606500775

DESERT SECURITY FARM ***3116 PLANT ROAD*** ***ENE 1/8 - 1/4 (0.250 mi.)*** ***D12*** ***29***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: RIVERSIDE CO. LUST, Date of Government Version: 03/10/2020
Database: LUST, Date of Government Version: 06/08/2020
Status: Completed - Case Closed
Status: 9 - Case Closed
Facility Id: 94426
Global Id: T0606500799
Facility Status: 0
Global ID: T0606500799

BILL LEWIS ***6490 NORTH C & D BOU*** ***ENE 1/4 - 1/2 (0.267 mi.)*** ***D13*** ***31***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 06/08/2020
Status: Completed - Case Closed
Status: 9 - Case Closed
Global Id: T0606500878
Global ID: T0606500878

FORD DRY LAKES JOJOB ***CHUCKWALLA VALLEY RO*** ***ENE 1/4 - 1/2 (0.267 mi.)*** ***D14*** ***34***
Database: LUST, Date of Government Version: 06/08/2020
Status: Completed - Case Closed
Global Id: T0606500784

USA SELF SERVICE/DOU ***1147 WEST HOBSONWAY*** ***ENE 1/4 - 1/2 (0.271 mi.)*** ***D15*** ***36***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 06/08/2020
Status: Open - Inactive
Status: 5C - Pollution Characterization
Global Id: T0606500889
Global ID: T0606500889

Lower Elevation	Address	Direction / Distance	Map ID	Page
J M DEFOREST	***12330 WEST HOBSONWAY***	***W 1/4 - 1/2 (0.471 mi.)***	***E17***	***49***
J M DEFOREST	12330 HOBSONWAY	W 1/4 - 1/2 (0.471 mi.)	E18	53

Database: LUST, Date of Government Version: 06/08/2020
Status: Completed - Case Closed
Global Id: T0606500786

Database: LUST REG 7, Date of Government Version: 02/26/2004
Status: 3B - Preliminary Site Assessment Underway
Global ID: T0606500786

UNOCAL STATION #5882 ***301 LOVEKIN BLVD S*** ***ESE 1/4 - 1/2 (0.490 mi.)*** ***F19*** ***53***
Database: LUST REG 7, Date of Government Version: 02/26/2004
Database: LUST, Date of Government Version: 06/08/2020

Status: Completed - Case Closed
Status: 5C - Pollution Characterization
Global Id: T0606500764
Global ID: T0606500764

QUIK CHEK LOVEKIN	***301 S LOVEKIN BLVD***	***ESE 1/4 - 1/2 (0.490 mi.)***	***F20***	***69***

Database: RIVERSIDE CO. LUST, Date of Government Version: 03/10/2020
Facility Id: 89851
Facility Status: 0

ADDITIONAL ENVIRONMENTAL RECORDS

Local Lists of Hazardous waste / Contaminated Sites

CERS HAZ WASTE: List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

A review of the CERS HAZ WASTE list, as provided by EDR, and dated 04/20/2020 has revealed that there is 1 CERS HAZ WASTE site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
O'REILLY AUTO PARTS	***1315 W HOBSONWAY***	***ENE 1/8 - 1/4 (0.174 mi.)***	***B7***	***20***

Local Lists of Registered Storage Tanks

SWEEPS UST: Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

A review of the SWEEPS UST list, as provided by EDR, and dated 06/01/1994 has revealed that there is 1 SWEEPS UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
K-MART ENTERPRISES #	***1224 W HOBSONWAY***	***E 1/8 - 1/4 (0.219 mi.)***	***C10***	***25***

Status: A
Tank Status: A
Comp Number: 14367

HIST UST: Historical UST Registered Database.

A review of the HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 2 HIST UST sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
KMART ENTERPRISES	1224 W HOBSON WAY	E 1/8 - 1/4 (0.219 mi.)	C9	25

Facility Id: 00000014367

K-MART ENTERPRISES #	***1224 W HOBSONWAY***	***E 1/8 - 1/4 (0.219 mi.)***	***C10***	***25***

CA FID UST: The Facility Inventory Database contains active and inactive underground storage tank locations. The source is the State Water Resource Control Board.

A review of the CA FID UST list, as provided by EDR, and dated 10/31/1994 has revealed that there is 1 CA FID UST site within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
K-MART ENTERPRISES # Facility Id: 33006897 Status: A	***1224 W HOBSONWAY***	***E 1/8 - 1/4 (0.219 mi.)***	***C10***	***25***

Other Ascertainable Records

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 06/15/2020 has revealed that there are 3 RCRA NonGen / NLR sites within approximately 0.25 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALEX'S TIRE EPA ID:: CAL000369308	1340 W HOBSON WAY	ENE 0 - 1/8 (0.116 mi.)	5	14
O'REILLY AUTO PARTS EPA ID:: CAL000392593	1315 W HOBSONWAY	ENE 1/8 - 1/4 (0.174 mi.)	B8	22
INLAND BUILDERS SUPP EPA ID:: CAL000351311	1224 W HOBSONWAY	E 1/8 - 1/4 (0.219 mi.)	C11	27

Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the Cortese list, as provided by EDR, and dated 06/22/2020 has revealed that there are 8 Cortese sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PURITAN ICE Cleanup Status: COMPLETED - CASE CLOSED	***11390 WEST HOBSONWAY***	***NW 0 - 1/8 (0.012 mi.)***	***A2***	***9***
LINDSEY HOLDING COMP Cleanup Status: COMPLETED - CASE CLOSED	***11450 HOBSON***	***NW 0 - 1/8 (0.012 mi.)***	***A3***	***11***
DESERT SECURITY FARM Cleanup Status: COMPLETED - CASE CLOSED	***3116 PLANT ROAD***	***ENE 1/8 - 1/4 (0.250 mi.)***	***D12***	***29***
BILL LEWIS	***6490 NORTH C & D BOU***	***ENE 1/4 - 1/2 (0.267 mi.)***	***D13***	***31***

Cleanup Status: COMPLETED - CASE CLOSED

FORD DRY LAKES JOJOB	***CHUCKWALLA VALLEY RO***	***ENE 1/4 - 1/2 (0.267 mi.)***	***D14***	***34***
Cleanup Status: COMPLETED - CASE CLOSED				
USA SELF SERVICE/DOU	***1147 WEST HOBSONWAY***	***ENE 1/4 - 1/2 (0.271 mi.)***	***D15***	***36***
Cleanup Status: OPEN - INACTIVE				

Lower Elevation	Address	Direction / Distance	Map ID	Page
J M DEFOREST	***12330 WEST HOBSONWAY***	***W 1/4 - 1/2 (0.471 mi.)***	***E17***	***49***
Cleanup Status: COMPLETED - CASE CLOSED				
UNOCAL STATION #5882	***301 LOVEKIN BLVD S***	***ESE 1/4 - 1/2 (0.490 mi.)***	***F19***	***53***
Cleanup Status: COMPLETED - CASE CLOSED				

HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

A review of the HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that there are 6 HIST CORTESE sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
PURITAN ICE	***11390 WEST HOBSONWAY***	***NW 0 - 1/8 (0.012 mi.)***	***A2***	***9***
Reg Id: 7T2225003				
LINDSEY HOLDING COMP	***11450 HOBSON***	***NW 0 - 1/8 (0.012 mi.)***	***A3***	***11***
Reg Id: 7T2225037				
DESERT SECURITY FARM	***3116 PLANT ROAD***	***ENE 1/8 - 1/4 (0.250 mi.)***	***D12***	***29***
Reg Id: 7T2225061				
BILL LEWIS	***6490 NORTH C & D BOU***	***ENE 1/4 - 1/2 (0.267 mi.)***	***D13***	***31***
Reg Id: 7T2225140				
J M DEFOREST	12300 HOBSONWAY	WNW 1/4 - 1/2 (0.320 mi.)	16	49
Reg Id: 7T2225048				

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNOCAL STATION #5882	***301 LOVEKIN BLVD S***	***ESE 1/4 - 1/2 (0.490 mi.)***	***F19***	***53***
Reg Id: 7T2225026				

Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the Notify 65 list, as provided by EDR, and dated 08/21/2020 has revealed that there are 5 Notify 65 sites within approximately 1 mile of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
E-Z SERVE NO. 100885	738 WEST HOBSON WAY	E 1/2 - 1 (0.547 mi.)	22	71
E.Z. MARTE #2	295 NORTH LOVEKIN	ENE 1/2 - 1 (0.555 mi.)	23	71
COMMUNICATIONS	***260 NORTH SPRING***	***ENE 1/2 - 1 (0.962 mi.)***	***24***	***72***
PALO VERDE IRRIGATIO	***180 14TH ST W***	***ESE 1/2 - 1 (0.991 mi.)***	***25***	***74***

Lower Elevation	Address	Direction / Distance	Map ID	Page
UNOCAL SERVICE STATI	301 SOUTH LOVEKIN BO	ESE 1/4 - 1/2 (0.490 mi.)	F21	71

EXECUTIVE SUMMARY

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR Hist Auto: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR Hist Auto list, as provided by EDR, has revealed that there is 1 EDR Hist Auto site within approximately 0.125 miles of the target property.

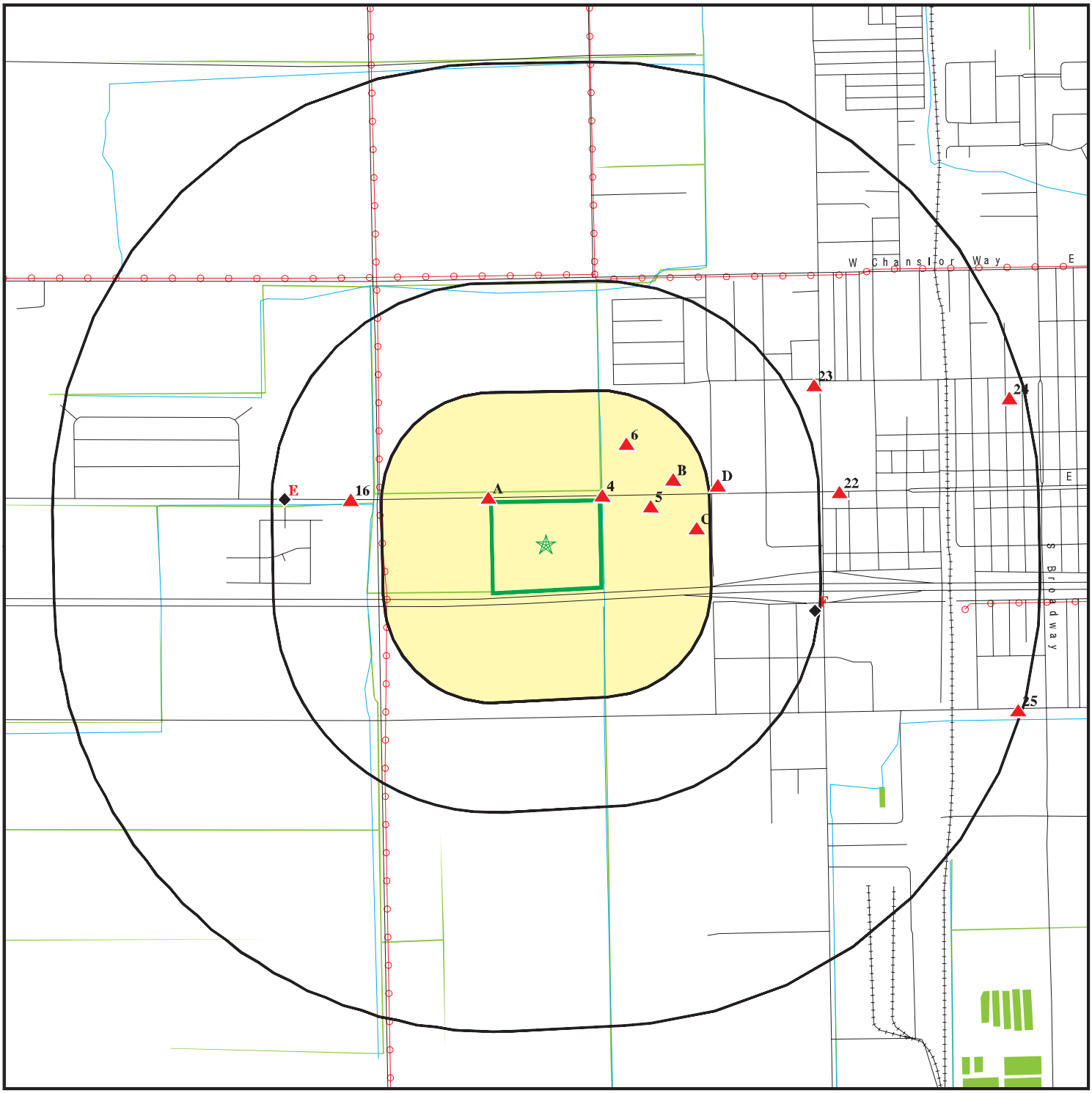
Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
ALEXS TIRE	11401 W HOBSON WAY	NE 0 - 1/8 (0.012 mi.)	4	14

EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 1 records.

Site Name	Database(s)
CALTRANS BLYTHE MAINTENANCE	LUST

OVERVIEW MAP - 6213158.2S



- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites

0 1/4 1/2 1 Miles

- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

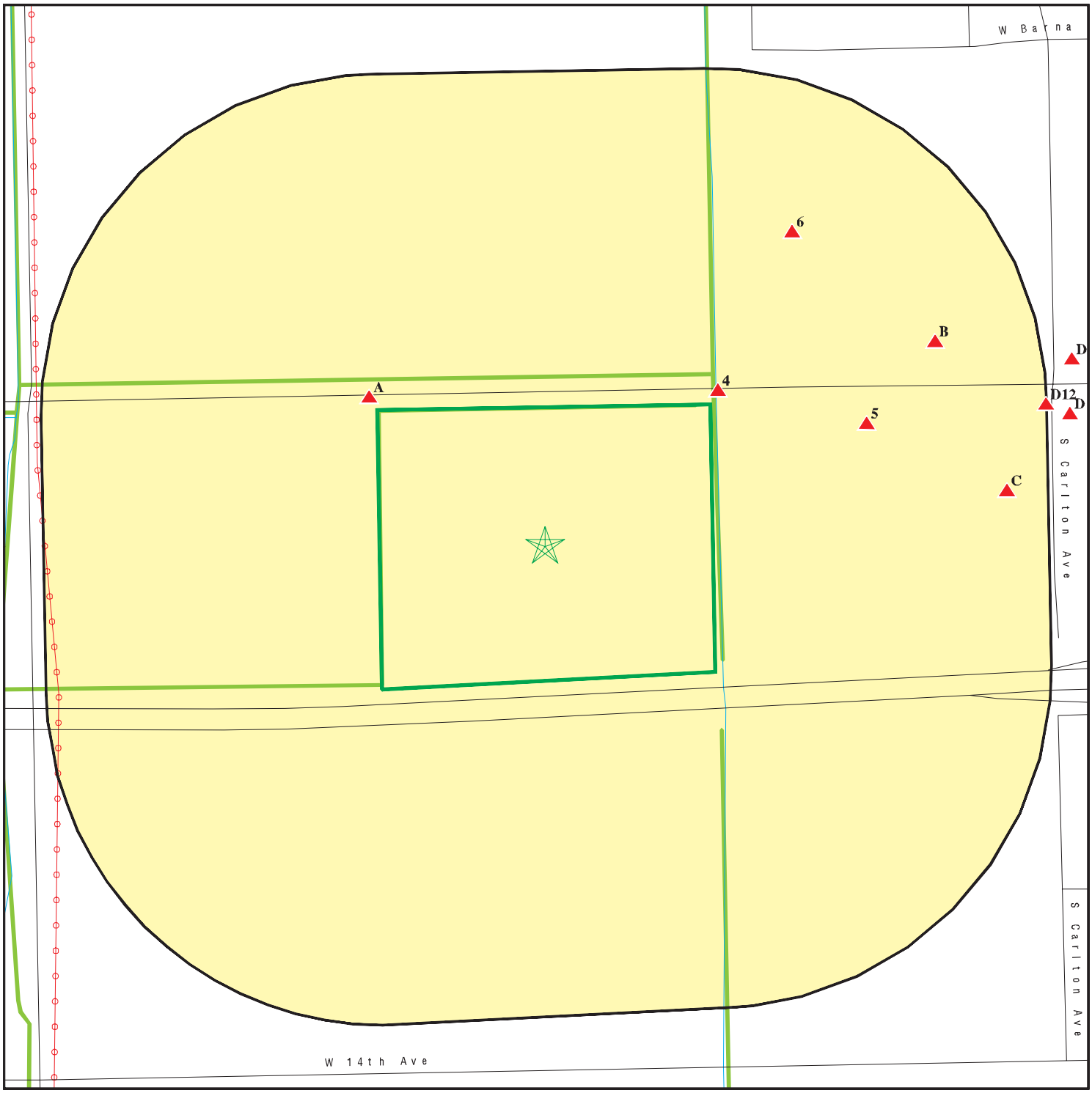
N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 11625 W. Highway 60	CLIENT: MSA Consulting, Inc.
ADDRESS: 11625 W. Highway 60 Blythe CA 92225	CONTACT: Asia Lee
LAT/LONG: 33.608456 / 114.616435	INQUIRY #: 6213158.2s DATE: October 02, 2020 9:48 am

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DETAIL MAP - 6213158.2S



0 1/16 1/8 1/4 Miles

- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- Sensitive Receptors
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- Special Flood Hazard Area (1%)
- 0.2% Annual Chance Flood Hazard
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: 11625 W. Highway 60	CLIENT: MSA Consulting, Inc.
ADDRESS: 11625 W. Highway 60 Blythe CA 92225	CONTACT: Asia Lee INQUIRY #: 6213158.2s
LAT/LONG: 33.608456 / 114.616435	DATE: October 02, 2020 9:52 am

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MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	1.000		0	0	0	0	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-VSQG	0.250		0	1	NR	NR	NR	1
Federal institutional controls / engineering controls registries								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROLS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent NPL								
RESPONSE	1.000		0	0	0	0	NR	0
State- and tribal - equivalent CERCLIS								
ENVIROSTOR	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		3	1	7	NR	NR	11

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
CPS-SLIC	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA UST	0.250		0	0	NR	NR	NR	0
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	0	NR	NR	0
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
WMUDS/SWAT	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
HAULERS	0.001		0	NR	NR	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST CDL	0.001		0	NR	NR	NR	NR	0
HIST Cal-Sites	1.000		0	0	0	0	NR	0
SCH	0.250		0	0	NR	NR	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
Toxic Pits	1.000		0	0	0	0	NR	0
CERS HAZ WASTE	0.250		0	1	NR	NR	NR	1
US CDL	0.001		0	NR	NR	NR	NR	0
PFAS	0.500		0	0	0	NR	NR	0
Local Lists of Registered Storage Tanks								
SWEEPS UST	0.250		0	1	NR	NR	NR	1
HIST UST	0.250		0	2	NR	NR	NR	2
CA FID UST	0.250		0	1	NR	NR	NR	1
CERS TANKS	0.250		0	0	NR	NR	NR	0
Local Land Records								
LIENS	0.001		0	NR	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
LIENS 2	0.001		0	NR	NR	NR	NR	0
DEED	0.500		0	0	0	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
CHMIRS	0.001		0	NR	NR	NR	NR	0
LDS	0.001		0	NR	NR	NR	NR	0
MCS	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		1	2	NR	NR	NR	3
FUDS	1.000		0	0	0	0	NR	0
DOD	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.250		0	0	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
CA BOND EXP. PLAN	1.000		0	0	0	0	NR	0
Cortese	0.500		2	1	5	NR	NR	8
CUPA Listings	0.250		0	0	NR	NR	NR	0

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
EMI	0.001		0	NR	NR	NR	NR	0
ENF	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HAZNET	0.001		0	NR	NR	NR	NR	0
ICE	0.001		0	NR	NR	NR	NR	0
HIST CORTESE	0.500		2	1	3	NR	NR	6
HWP	1.000		0	0	0	0	NR	0
HWT	0.250		0	0	NR	NR	NR	0
MINES	0.250		0	0	NR	NR	NR	0
MWMP	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
PEST LIC	0.001		0	NR	NR	NR	NR	0
PROC	0.500		0	0	0	NR	NR	0
Notify 65	1.000		0	0	1	4	NR	5
UIC	0.001		0	NR	NR	NR	NR	0
UIC GEO	0.001		0	NR	NR	NR	NR	0
WASTEWATER PITS	0.500		0	0	0	NR	NR	0
WDS	0.001		0	NR	NR	NR	NR	0
WIP	0.250		0	0	NR	NR	NR	0
MILITARY PRIV SITES	0.001		0	NR	NR	NR	NR	0
PROJECT	0.001		0	NR	NR	NR	NR	0
WDR	0.001		0	NR	NR	NR	NR	0
CIWQS	0.001		0	NR	NR	NR	NR	0
CERS	0.001		0	NR	NR	NR	NR	0
NON-CASE INFO	0.001		0	NR	NR	NR	NR	0
OTHER OIL GAS	0.001		0	NR	NR	NR	NR	0
PROD WATER PONDS	0.001		0	NR	NR	NR	NR	0
SAMPLING POINT	0.001		0	NR	NR	NR	NR	0
WELL STIM PROJ	0.001		0	NR	NR	NR	NR	0
HWTS	TP		NR	NR	NR	NR	NR	0
MINES MRDS	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR Hist Auto	0.125		1	NR	NR	NR	NR	1
EDR Hist Cleaner	0.125		0	NR	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	9	11	16	4	0	40

MAP FINDINGS SUMMARY

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

A1 **LINDSEY HOLDING COMPANY** **LUST** **S104970846**
NW **11450 W HOBSONWAY** **N/A**
< 1/8 **BLYTHE, CA**
0.012 mi.
63 ft. **Site 1 of 3 in cluster A**

Relative:
Higher

Actual:
267 ft.

RIVERSIDE CO. LUST:

Name:	LINDSEY HOLDING COMPANY
Address:	11450 W HOBSONWAY
City,State,Zip:	BLYTHE, CA
Region:	RIVERSIDE
Facility ID:	901073
Employee:	Ray
Site Closed:	Yes
Case Type:	Undefined
Facility Status:	closed/action completed
Casetype Decode:	Undefined
Fstatus Decode:	Closed/Action completed

A2 **PURITAN ICE** **LUST** **S105022806**
NW **11390 WEST HOBSONWAY** **Cortese** **N/A**
< 1/8 **BLYTHE, CA 92225** **HIST CORTESE**
0.012 mi. **CERS**
63 ft. **Site 2 of 3 in cluster A**

Relative:
Higher

Actual:
267 ft.

LUST:

Name:	PURITAN ICE
Address:	11390 WEST HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500741
Global Id:	T0606500741
Latitude:	33.6100445
Longitude:	-114.6186138
Status:	Completed - Case Closed
Status Date:	08/27/1992
Case Worker:	Not reported
RB Case Number:	7T2225003
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Not reported
Local Case Number:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500741
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500741
Action Type:	Other
Date:	06/06/1986

PURITAN ICE (Continued) **S105022806**

Action: Leak Discovery

Global Id: T0606500741
Action Type: Other
Date: 06/06/1986
Action: Leak Stopped

Global Id: T0606500741
Action Type: Other
Date: 06/09/1986
Action: Leak Reported

LUST:
Global Id: T0606500741
Status: Open - Case Begin Date
Status Date: 06/06/1986

Global Id: T0606500741
Status: Completed - Case Closed
Status Date: 08/27/1992

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2225003
Substance: Gasoline - Automotive
ID: 1086
Global ID: T0606500741
Lead Agency: Regional Board
Case Worker: RT

CORTESE:
Name: PURITAN ICE
Address: 11390 WEST HOBSONWAY
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0606500741
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported

PURITAN ICE (Continued) **S105022806**

File Name: Active Open

HIST CORTESE:
edr_fname: PURITAN ICE
edr_fadd1: 11390 HOBSON
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Facility County Code: 33
Reg By: LTNKA
Reg Id: 7T2225003

CERS:
Name: PURITAN ICE
Address: 11390 WEST HOBSONWAY
City,State,Zip: BLYTHE, CA 92225
Site ID: 231511
CERS ID: T0606500741
CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
Affiliation Type Desc: Local Agency Caseworker
Entity Name: Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title: Not reported
Affiliation Address: 3880 LEMON ST SUITE 200
Affiliation City: RIVERSIDE
Affiliation State: CA
Affiliation Country: Not reported
Affiliation Zip: Not reported
Affiliation Phone: 9519558980

A3 **LINDSEY HOLDING COMPANY** **LUST** **S105022807**
NW **11450 HOBSON** **Cortese** **N/A**
< 1/8 **BLYTHE, CA 92225** **HIST CORTESE**
0.012 mi. **CERS**
63 ft. **Site 3 of 3 in cluster A**

Relative: Higher
Actual: 267 ft.

LUST:
Name: LINDSEY HOLDING COMPANY
Address: 11450 WEST HOBSONWAY
City,State,Zip: BLYTHE, CA 92225
Lead Agency: COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type: LUST Cleanup Site
Geo Track: http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500775
Global Id: T0606500775
Latitude: 33.6100445
Longitude: -114.6186138
Status: Completed - Case Closed
Status Date: 01/30/1997
Case Worker: Not reported
RB Case Number: 7T2225037
Local Agency: RIVERSIDE COUNTY LOP
File Location: Local Agency Warehouse
Local Case Number: 901073
Potential Media Affect: Aquifer used for drinking water supply
Potential Contaminants of Concern: Diesel
Site History: Not reported

LINDSEY HOLDING COMPANY (Continued) **S105022807**

LUST:
Global Id: T0606500775
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500775
Action Type: Other
Date: 04/12/1990
Action: Leak Discovery

Global Id: T0606500775
Action Type: Other
Date: 04/12/1990
Action: Leak Stopped

Global Id: T0606500775
Action Type: Other
Date: 11/27/1990
Action: Leak Reported

Global Id: T0606500775
Action Type: ENFORCEMENT
Date: 03/17/2009
Action: Closure/No Further Action Letter - #Site Closure

Global Id: T0606500775
Action Type: ENFORCEMENT
Date: 10/05/1992
Action: File review - #RCCEH upload site file 8/27/2015

LUST:
Global Id: T0606500775
Status: Open - Case Begin Date
Status Date: 04/12/1990

Global Id: T0606500775
Status: Open - Site Assessment
Status Date: 11/27/1990

Global Id: T0606500775
Status: Open - Site Assessment
Status Date: 04/13/1994

Global Id: T0606500775
Status: Open - Site Assessment
Status Date: 09/28/1994

Global Id: T0606500775
Status: Completed - Case Closed
Status Date: 01/30/1997

LINDSEY HOLDING COMPANY (Continued) **S105022807**

LUST REG 7:
- Region: 7
- Status: 9 - Case Closed
- Case Num: 7T2225037
- Substance: Diesel fuel oil and additives
- ID: 895
- Global ID: T0606500775
- Lead Agency: Regional Board
- Case Worker: RT

CORTESE:
- Name: LINDSEY HOLDING COMPANY
- Address: 11450 WEST HOBSONWAY
- City,State,Zip: BLYTHE, CA 92225
- Region: CORTESE
- Envirostor Id: Not reported
- Global ID: T0606500775
- Site/Facility Type: LUST CLEANUP SITE
- Cleanup Status: COMPLETED - CASE CLOSED
- Status Date: Not reported
- Site Code: Not reported
- Latitude: Not reported
- Longitude: Not reported
- Owner: Not reported
- Enf Type: Not reported
- Swat R: Not reported
- Flag: active
- Order No: Not reported
- Waste Discharge System No: Not reported
- Effective Date: Not reported
- Region 2: Not reported
- WID Id: Not reported
- Solid Waste Id No: Not reported
- Waste Management Uit Name: Not reported
- File Name: Active Open

HIST CORTESE:
- edr_fname: LINDSEY HOLDING COMPANY
- edr_fadd1: 11450 HOBSON
- City,State,Zip: BLYTHE, CA 92225
- Region: CORTESE
- Facility County Code: 33
- Reg By: LTNKA
- Reg Id: 7T2225037

CERS:
- Name: LINDSEY HOLDING COMPANY
- Address: 11450 WEST HOBSONWAY
- City,State,Zip: BLYTHE, CA 92225
- Site ID: 197425
- CERS ID: T0606500775
- CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
- Affiliation Type Desc: Local Agency Caseworker
- Entity Name: Riverside County LOP - RIVERSIDE COUNTY LOP

LINDSEY HOLDING COMPANY (Continued) **S105022807**

Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

4
NE
< 1/8
0.012 mi.
65 ft.

ALEXS TIRE **EDR Hist Auto** **1021332246**
11401 W HOBSON WAY **N/A**
BLYTHE, CA 92225

Relative:
Higher

Actual:
267 ft.

EDR Hist Auto

Year:	Name:	Type:
1987	ALEXS TIRE	Auto And Home Supply Stores
1988	ALEXS TIRE	Auto And Home Supply Stores
1989	ALEXS TIRE	Auto And Home Supply Stores
1990	ALEXS TIRE	Auto And Home Supply Stores

5
ENE
< 1/8
0.116 mi.
613 ft.

ALEX'S TIRE **RCRA NonGen / NLR** **1024831821**
1340 W HOBSON WAY **CAL000369308**
BLYTHE, CA 92225

Relative:
Higher

Actual:
267 ft.

RCRA Listings:

Date Form Received by Agency:	2011-11-22 00:00:00.0
Handler Name:	ALEX'S TIRE
Handler Address:	1340 W HOBSON WAY
Handler City,State,Zip:	BLYTHE, CA 92225
EPA ID:	CAL000369308
Contact Name:	ALEXANDER GUILIN
Contact Address:	1340 W HOBSON WAY
Contact City,State,Zip:	BLYTHE, CA 92225
Contact Telephone:	760-922-0216
Contact Fax:	760-922-0609
Contact Email:	ALEXSTIRE@NPGCABLE.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	1340 W HOBSON WAY
Mailing City,State,Zip:	BLYTHE, CA 92225-0000
Owner Name:	ALEXANDER GUILIN JR
Owner Type:	Other
Operator Name:	ALEXANDER GUILIN

ALEX'S TIRE (Continued) **1024831821**

Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-06 16:59:49.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

ALEX'S TIRE (Continued) **1024831821**

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ALEXANDER GUILIN JR
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1340 W HOBSON WAY
Owner/Operator City,State,Zip:	BLYTHE, CA 92225-0000
Owner/Operator Telephone:	760-922-0216
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	ALEXANDER GUILIN
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1340 W HOBSON WAY
Owner/Operator City,State,Zip:	BLYTHE, CA 92225
Owner/Operator Telephone:	760-922-0216
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2011-11-22 00:00:00.0
Handler Name:	ALEX'S TIRE
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

---

6 **KMART 3881** **RCRA-VSQG** **1019322393**
NE **1445 W HOBSON** **CAL000231587**
1/8-1/4 **BLYTHE, CA 92225**
0.143 mi.
754 ft.

Relative:
Higher

Actual:
268 ft.

RCRA Listings:

Date Form Received by Agency:	2016-02-18 00:00:00.0
Handler Name:	KMART 3881
Handler Address:	1445 W HOBSON
Handler City,State,Zip:	BLYTHE, CA 92225
EPA ID:	CAL000231587
Contact Name:	CYNTHIA MILLER
Contact Address:	BEVERLY ROAD
Contact City,State,Zip:	HOFFMAN ESTATES, IL 60179
Contact Telephone:	847-286-7994

KMART 3881 (Continued) **1019322393**

Contact Fax:	847-747-1609
Contact Email:	CYNTHIA.MILLER@SEARSHC.COM
Contact Title:	ENVIRONMENTAL SPECIALIST
EPA Region:	09
Land Type:	Private
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
Non-Notifier:	Not reported
Biennial Report Cycle:	2015
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	BEVERLY ROAD
Mailing City,State,Zip:	HOFFMAN ESTATES, IL 60179
Owner Name:	FIFTH STREET FUNDING, INC
Owner Type:	Private
Operator Name:	KMART CORPORATION
Operator Type:	Private
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	No
Universal Waste Destination Facility:	No
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	NN
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A

KMART 3881 (Continued) **1019322393**

Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2016-11-04 19:42:33.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	Not reported
Manifest Broker:	Not reported
Sub-Part P Indicator:	Not reported

Biennial: List of Years
Year: 2015

Click Here for Biennial Reporting System Data:

Hazardous Waste Summary:

Waste Code:	D001
Waste Description:	IGNITABLE WASTE
Waste Code:	D002
Waste Description:	CORROSIVE WASTE
Waste Code:	D005
Waste Description:	BARIUM
Waste Code:	D006
Waste Description:	CADMIUM
Waste Code:	D007
Waste Description:	CHROMIUM
Waste Code:	D008
Waste Description:	LEAD
Waste Code:	D009
Waste Description:	MERCURY
Waste Code:	D011
Waste Description:	SILVER
Waste Code:	D016
Waste Description:	2,4-D (2,4-DICHLOROPHENOXYACETIC ACID)
Waste Code:	D018
Waste Description:	BENZENE
Waste Code:	D035
Waste Description:	METHYL ETHYL KETONE

KMART 3881 (Continued) **1019322393**

Waste Code: P075
Waste Description: NICOTINE, & SALTS (OR) PYRIDINE, 3-(1-METHYL-2-PYRROLIDINYL)-,(S)-, & SALTS

Waste Code: U002
Waste Description: 2-PROPANONE (I) (OR) ACETONE (I)

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	KMART CORPORATION
Legal Status:	Private
Date Became Current:	1993-05-24 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	Not reported
Owner/Operator City,State,Zip:	Not reported
Owner/Operator Telephone:	Not reported
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	FIFTH STREET FUNDING, INC
Legal Status:	Private
Date Became Current:	1991-05-01 00:00:00.
Date Ended Current:	Not reported
Owner/Operator Address:	541 S SPRING STREET
Owner/Operator City,State,Zip:	LOS ANGELES, CA 90013
Owner/Operator Telephone:	213-688-1100
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2016-02-18 00:00:00.0
Handler Name:	KMART 3881
Federal Waste Generator Description:	Conditionally Exempt Small Quantity Generator
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

B7 **O'REILLY AUTO PARTS #2758** **CERS HAZ WASTE** **S123501224**
ENE **1315 W HOBSONWAY** **CERS** **N/A**
1/8-1/4 **BLYTHE, CA 92225**
0.174 mi.
917 ft. **Site 1 of 2 in cluster B**

Relative:
Higher

Actual:
267 ft.

CERS HAZ WASTE:

Name:	O'REILLY AUTO PARTS #2758
Address:	1315 W HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Site ID:	139213
CERS ID:	10327933
CERS Description:	Hazardous Waste Generator

CERS:

Name:	O'REILLY AUTO PARTS #2758
Address:	1315 W HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Site ID:	139213
CERS ID:	10327933
CERS Description:	Chemical Storage Facilities

Evaluation:

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	11-28-2017
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	05-06-2019
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HW
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	06-06-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HMRRP
Eval Source:	CERS

Eval General Type:	Compliance Evaluation Inspection
Eval Date:	04-22-2014
Violations Found:	No
Eval Type:	Routine done by local agency
Eval Notes:	Not reported
Eval Division:	Riverside County Department of Env Health
Eval Program:	HW
Eval Source:	CERS

O'REILLY AUTO PARTS #2758 (Continued) **S123501224**

Coordinates:

Site ID:	139213
Facility Name:	O'Reilly Auto Parts #2758
Env Int Type Code:	HWG
Program ID:	10327933
Coord Name:	Not reported
Ref Point Type Desc:	Center of a facility or station.
Latitude:	33.610550
Longitude:	-114.611670

Affiliation:

Affiliation Type Desc:	CUPA District
Entity Name:	Riverside Cnty Env Health
Entity Title:	Not reported
Affiliation Address:	4065 County Circle Drive, Room 104
Affiliation City:	Riverside
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92503
Affiliation Phone:	(951) 358-5055

Affiliation Type Desc:	Legal Owner
Entity Name:	O'Reilly Auto Enterprises, L.L.C.
Entity Title:	Not reported
Affiliation Address:	702 E. Bethany Home Road
Affiliation City:	Phoenix
Affiliation State:	AZ
Affiliation Country:	United States
Affiliation Zip:	85014
Affiliation Phone:	(417) 862-3333

Affiliation Type Desc:	Document Preparer
Entity Name:	John Koning, Agent for O'Reilly Auto Enterprises, L.L.C.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Identification Signer
Entity Name:	John Koning, Agent for O'Reilly Auto Enterprises, L.L.C.
Entity Title:	Regulatory Compliance Specialist, Verisk 3E
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

Affiliation Type Desc:	Operator
Entity Name:	O'Reilly Auto Enterprises, L.L.C.
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported

O'REILLY AUTO PARTS #2758 (Continued) **S123501224**

Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	(417) 862-3333
Affiliation Type Desc:	Environmental Contact
Entity Name:	Verisk 3E, Regulatory Department/O'Reilly Auto Parts
Entity Title:	Not reported
Affiliation Address:	3207 Grey Hawk Court, Suite 200
Affiliation City:	Carlsbad
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92010
Affiliation Phone:	Not reported
Affiliation Type Desc:	Facility Mailing Address
Entity Name:	Mailing Address
Entity Title:	Not reported
Affiliation Address:	Verisk 3E, Reg.Dept/O'Reilly Auto Parts, 3207 Grey Hawk Ct, Ste 200
Affiliation City:	Carlsbad
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	92010
Affiliation Phone:	Not reported
Affiliation Type Desc:	Parent Corporation
Entity Name:	O'Reilly Auto Parts
Entity Title:	Not reported
Affiliation Address:	Not reported
Affiliation City:	Not reported
Affiliation State:	Not reported
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	Not reported

B8 **O'REILLY AUTO PARTS STORE 2758** **RCRA NonGen / NLR** **1024842233**
ENE **1315 W HOBSONWAY** **CAL000392593**
1/8-1/4 **BLYTHE, CA 92225**
0.174 mi.
917 ft. **Site 2 of 2 in cluster B**

Relative:
Higher

Actual:
267 ft.

RCRA Listings:

Date Form Received by Agency:	2014-01-09 00:00:00.0
Handler Name:	O'REILLY AUTO PARTS STORE 2758
Handler Address:	1315 W HOBSONWAY
Handler City,State,Zip:	BLYTHE, CA 92225
EPA ID:	CAL000392593
Contact Name:	JOHN BOUNDS
Contact Address:	233 S. PATTERSON AVE.
Contact City,State,Zip:	SPRINGFIELD, MO 65802
Contact Telephone:	417-520-4589
Contact Fax:	417-874-7102
Contact Email:	JBOUNDS2@OREILLYAUTO.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified

O'REILLY AUTO PARTS STORE 2758 (Continued) **1024842233**

Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	233 S PATTERSON
Mailing City,State,Zip:	SPRINGFIELD, MO 65802-0000
Owner Name:	O'REILLY AUTO PARTS
Owner Type:	Other
Operator Name:	JOHN BOUNDS
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported
Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No

O'REILLY AUTO PARTS STORE 2758 (Continued) **1024842233**

Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-06 17:03:39.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Operator
Owner/Operator Name:	JOHN BOUNDS
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	233 S. PATTERSON AVE.
Owner/Operator City,State,Zip:	SPRINGFIELD, MO 65802
Owner/Operator Telephone:	417-520-4589
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Owner
Owner/Operator Name:	O'REILLY AUTO PARTS
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	233 S PATTERSON
Owner/Operator City,State,Zip:	SPRINGFIELD, MO 65802-0000
Owner/Operator Telephone:	417-862-3333
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Historic Generators:

Receive Date:	2014-01-09 00:00:00.0
Handler Name:	O'REILLY AUTO PARTS STORE 2758
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

C9 **KMART ENTERPRISES** **HIST UST** **U001573646**
East **1224 W HOBSON WAY** **N/A**
1/8-1/4 **BLYTHE, CA 92225**
0.219 mi.
1158 ft. **Site 1 of 3 in cluster C**

Relative: **Higher**

Actual: **267 ft.**

HIST UST:

Name:	KMART ENTERPRISES
Address:	1224 W HOBSON WAY
City,State,Zip:	BLYTHE, CA 92225
File Number:	Not reported
URL:	Not reported
Region:	STATE
Facility ID:	00000014367
Facility Type:	Other
Other Type:	AUTO REPAIR
Contact Name:	Not reported
Telephone:	6199222169
Owner Name:	KMART CORPORATION
Owner Address:	P.O. BOX 3150
Owner City,St,Zip:	TROY, MI 48084
Total Tanks:	0001
Tank Num:	001
Container Num:	4144
Year Installed:	1978
Tank Capacity:	00000500
Tank Used for:	WASTE
Type of Fuel:	WASTE OIL
Container Construction Thickness:	3/16
Leak Detection:	Pressure Test

C10 **K-MART ENTERPRISES #9228** **SWEEPS UST** **S101590261**
East **1224 W HOBSONWAY** **HIST UST** **N/A**
1/8-1/4 **BLYTHE, CA 92225** **CA FID UST**
0.219 mi.
1158 ft. **Site 2 of 3 in cluster C**

Relative: **Higher**

Actual: **267 ft.**

SWEEPS UST:

Name:	K-MART ENTERPRISES #9228
Address:	1224 W HOBSONWAY
City:	BLYTHE
Status:	Active
Comp Number:	14367
Number:	1
Board Of Equalization:	44-011183
Referral Date:	06-25-90
Action Date:	06-25-90
Created Date:	02-29-88
Owner Tank Id:	000627
SWRCB Tank Id:	33-000-014367-000001
Tank Status:	A
Capacity:	500
Active Date:	06-25-90
Tank Use:	OIL
STG:	W
Content:	WASTE OIL
Number Of Tanks:	1

K-MART ENTERPRISES #9228 (Continued) **S101590261**

HIST UST:

Name:	KMART ENTERPRISES
Address:	1224 W HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
File Number:	0001F791
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F791.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported
Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

CA FID UST:

Facility ID:	33006897
Regulated By:	UTNKA
Regulated ID:	00014367
Cortese Code:	Not reported
SIC Code:	Not reported
Facility Phone:	6199222169
Mail To:	Not reported
Mailing Address:	3100 W BIG BEAVER RD
Mailing Address 2:	Not reported
Mailing City,St,Zip:	BLYTHE 92225
Contact:	Not reported
Contact Phone:	Not reported
DUNs Number:	Not reported
NPDES Number:	Not reported
EPA ID:	Not reported
Comments:	Not reported
Status:	Active

C11 **INLAND BUILDERS SUPPLY INC** **RCRA NonGen / NLR** **1024825516**
East **1224 W HOBSONWAY** **CAL000351311**
1/8-1/4 **BLYTHE, CA 92225**
0.219 mi.
1158 ft. **Site 3 of 3 in cluster C**

Relative: **Higher**
Actual: **267 ft.**

RCRA Listings:

Date Form Received by Agency:	2010-03-30 00:00:00.0
Handler Name:	INLAND BUILDERS SUPPLY INC
Handler Address:	1224 W HOBSONWAY
Handler City,State,Zip:	BLYTHE, CA 92225-1424
EPA ID:	CAL000351311
Contact Name:	STEVE LINDBERGH
Contact Address:	1224 W HOBSONWAY
Contact City,State,Zip:	BLYTHE, CA 92225
Contact Telephone:	760-922-0361
Contact Fax:	760-922-0374
Contact Email:	STEVE@INLANDBUILDERSSUPPLY.COM
Contact Title:	Not reported
EPA Region:	09
Land Type:	Not reported
Federal Waste Generator Description:	Not a generator, verified
Non-Notifier:	Not reported
Biennial Report Cycle:	Not reported
Accessibility:	Not reported
Active Site Indicator:	Handler Activities
State District Owner:	Not reported
State District:	Not reported
Mailing Address:	1224 W HOBSONWAY
Mailing City,State,Zip:	BLYTHE, CA 92225-1424
Owner Name:	ART BALYLES
Owner Type:	Other
Operator Name:	STEVE LINDBERGH
Operator Type:	Other
Short-Term Generator Activity:	No
Importer Activity:	No
Mixed Waste Generator:	No
Transporter Activity:	No
Transfer Facility Activity:	No
Recycler Activity with Storage:	No
Small Quantity On-Site Burner Exemption:	No
Smelting Melting and Refining Furnace Exemption:	No
Underground Injection Control:	No
Off-Site Waste Receipt:	No
Universal Waste Indicator:	Yes
Universal Waste Destination Facility:	Yes
Federal Universal Waste:	No
Active Site Fed-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site Converter Treatment storage and Disposal Facility:	Not reported
Active Site State-Reg Treatment Storage and Disposal Facility:	Not reported
Active Site State-Reg Handler:	---
Federal Facility Indicator:	Not reported
Hazardous Secondary Material Indicator:	N
Sub-Part K Indicator:	Not reported
Commercial TSD Indicator:	No
Treatment Storage and Disposal Type:	Not reported
2018 GPRA Permit Baseline:	Not on the Baseline
2018 GPRA Renewals Baseline:	Not on the Baseline
Permit Renewals Workload Universe:	Not reported

INLAND BUILDERS SUPPLY INC (Continued) **1024825516**

Permit Workload Universe:	Not reported
Permit Progress Universe:	Not reported
Post-Closure Workload Universe:	Not reported
Closure Workload Universe:	Not reported
202 GPRA Corrective Action Baseline:	No
Corrective Action Workload Universe:	No
Subject to Corrective Action Universe:	No
Non-TSDFs Where RCRA CA has Been Imposed Universe:	No
TSDFs Potentially Subject to CA Under 3004 (u)/(v) Universe:	No
TSDFs Only Subject to CA under Discretionary Auth Universe:	No
Corrective Action Priority Ranking:	No NCAPS ranking
Environmental Control Indicator:	No
Institutional Control Indicator:	No
Human Exposure Controls Indicator:	N/A
Groundwater Controls Indicator:	N/A
Operating TSDF Universe:	Not reported
Full Enforcement Universe:	Not reported
Significant Non-Complier Universe:	No
Unaddressed Significant Non-Complier Universe:	No
Addressed Significant Non-Complier Universe:	No
Significant Non-Complier With a Compliance Schedule Universe:	No
Financial Assurance Required:	Not reported
Handler Date of Last Change:	2018-09-05 20:32:07.0
Recognized Trader-Importer:	No
Recognized Trader-Exporter:	No
Importer of Spent Lead Acid Batteries:	No
Exporter of Spent Lead Acid Batteries:	No
Recycler Activity Without Storage:	No
Manifest Broker:	No
Sub-Part P Indicator:	No

Handler - Owner Operator:

Owner/Operator Indicator:	Owner
Owner/Operator Name:	ART BALYLES
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	3410 QUAIL RUN RD
Owner/Operator City,State,Zip:	BLYTHE, CA 92225-0000
Owner/Operator Telephone:	760-922-7415
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

Owner/Operator Indicator:	Operator
Owner/Operator Name:	STEVE LINDBERGH
Legal Status:	Other
Date Became Current:	Not reported
Date Ended Current:	Not reported
Owner/Operator Address:	1224 W HOBSONWAY
Owner/Operator City,State,Zip:	BLYTHE, CA 92225
Owner/Operator Telephone:	760-922-0361
Owner/Operator Telephone Ext:	Not reported
Owner/Operator Fax:	Not reported
Owner/Operator Email:	Not reported

INLAND BUILDERS SUPPLY INC (Continued) **1024825516**

Historic Generators:

Receive Date:	2010-03-30 00:00:00.0
Handler Name:	INLAND BUILDERS SUPPLY INC
Federal Waste Generator Description:	Not a generator, verified
State District Owner:	Not reported
Large Quantity Handler of Universal Waste:	No
Recognized Trader Importer:	No
Recognized Trader Exporter:	No
Spent Lead Acid Battery Importer:	No
Spent Lead Acid Battery Exporter:	No
Current Record:	Yes
Non Storage Recycler Activity:	Not reported
Electronic Manifest Broker:	Not reported

D12 **DESERT SECURITY FARMS** **LUST** **S103820974**
ENE **3116 PLANT ROAD** **Cortese** **N/A**
1/8-1/4 **BLYTHE, CA 92225** **HIST CORTESE**
0.250 mi. **CERS**
1319 ft. **Site 1 of 4 in cluster D**

Relative:
Higher

Actual:
267 ft.

LUST:

Name:	DESERT SECURITY FARMS
Address:	3116 PLANT ROAD
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500799
Global Id:	T0606500799
Latitude:	33.6099744
Longitude:	-114.6099684
Status:	Completed - Case Closed
Status Date:	08/26/1996
Case Worker:	Not reported
RB Case Number:	7T2225061
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Not reported
Local Case Number:	94426
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500799
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500799
Action Type:	Other
Date:	04/14/1994

DESERT SECURITY FARMS (Continued) **S103820974**

Action: Leak Discovery

Global Id: T0606500799
Action Type: Other
Date: 04/15/1994
Action: Leak Reported

LUST:
Global Id: T0606500799
Status: Open - Case Begin Date
Status Date: 04/14/1994

Global Id: T0606500799
Status: Completed - Case Closed
Status Date: 08/26/1996

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2225061
Substance: Gasoline - Automotive
ID: 704
Global ID: T0606500799
Lead Agency: Regional Board
Case Worker: RT

RIVERSIDE CO. LUST:
Name: DESERT SECURITY FARMS
Address: 3116 PLANT RD
City,State,Zip: BLYTHE, CA
Region: RIVERSIDE
Facility ID: 94426
Employee: Hoy
Site Closed: Referred to Water Board
Case Type: Undefined
Facility Status: 0
Casetype Decode: Undefined
Fstatus Decode: Not reported

CORTESE:
Name: DESERT SECURITY FARMS
Address: 3116 PLANT ROAD
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0606500799
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported

DESERT SECURITY FARMS (Continued) **S103820974**

Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	DESERT SECURITY FARMS
edr_fadd1:	3116 PLANT
City,State,Zip:	BLYTHE, CA 92225
Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2225061

CERS:

Name:	DESERT SECURITY FARMS
Address:	3116 PLANT ROAD
City,State,Zip:	BLYTHE, CA 92225
Site ID:	201575
CERS ID:	T0606500799
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

D13 **BILL LEWIS** **LUST** **S105022800**
ENE **6490 NORTH C & D BOULEVARD** **Cortese** **N/A**
1/4-1/2 **BLYTHE, CA 92225** **HIST CORTESE**
0.267 mi. **CERS**
1412 ft. **Site 2 of 4 in cluster D**

Relative:
Higher

Actual:
267 ft.

LUST:

Name:	BILL LEWIS
Address:	6490 NORTH C & D BOULEVARD
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500878
Global Id:	T0606500878
Latitude:	33.6098694
Longitude:	-114.6096604
Status:	Completed - Case Closed

BILL LEWIS (Continued) **S105022800**

Status Date: 09/09/1998
Case Worker: Not reported
RB Case Number: 7T2225140
Local Agency: RIVERSIDE COUNTY LOP
File Location: Not reported
Local Case Number: Not reported
Potential Media Affect: Under Investigation
Potential Contaminants of Concern: Gasoline
Site History: Not reported

LUST:
Global Id: T0606500878
Contact Type: Local Agency Caseworker
Contact Name: Riverside County LOP
Organization Name: RIVERSIDE COUNTY LOP
Address: 3880 LEMON ST SUITE 200
City: RIVERSIDE
Email: Not reported
Phone Number: 9519558980

LUST:
Global Id: T0606500878
Action Type: Other
Date: 05/15/1997
Action: Leak Discovery

Global Id: T0606500878
Action Type: Other
Date: 04/08/1997
Action: Leak Stopped

Global Id: T0606500878
Action Type: Other
Date: 05/15/1997
Action: Leak Reported

LUST:
Global Id: T0606500878
Status: Open - Case Begin Date
Status Date: 04/08/1997

Global Id: T0606500878
Status: Completed - Case Closed
Status Date: 09/09/1998

LUST REG 7:
Region: 7
Status: 9 - Case Closed
Case Num: 7T2225140
Substance: Gasoline - Automotive
ID: 451
Global ID: T0606500878
Lead Agency: Regional Board
Case Worker: EK

BILL LEWIS (Continued) **S105022800**

CORTESE:

Name:	BILL LEWIS
Address:	6490 NORTH C & D BOULEVARD
City,State,Zip:	BLYTHE, CA 92225
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0606500878
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

HIST CORTESE:

edr_fname:	BILL LEWIS
edr_fadd1:	6490 C & D
City,State,Zip:	BLYTHE, CA 92225
Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2225140

CERS:

Name:	BILL LEWIS
Address:	6490 NORTH C & D BOULEVARD
City,State,Zip:	BLYTHE, CA 92225
Site ID:	258647
CERS ID:	T0606500878
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

D14 **FORD DRY LAKES JOJOBA** **LUST** **S110654935**
ENE **CHUCKWALLA VALLEY ROAD** **Cortese** **N/A**
1/4-1/2 **BLYTHE, CA 92225** **CERS**
0.267 mi.
1412 ft. **Site 3 of 4 in cluster D**

Relative:
Higher

Actual:
267 ft.

LUST:

Name:	FORD DRY LAKES JOJOBA
Address:	CHUCKWALLA VALLEY ROAD
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500784
Global Id:	T0606500784
Latitude:	33.6098694
Longitude:	-114.6096604
Status:	Completed - Case Closed
Status Date:	10/10/1996
Case Worker:	Not reported
RB Case Number:	7T2225046
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Not reported
Local Case Number:	Not reported
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Diesel
Site History:	Not reported

LUST:

Global Id:	T0606500784
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500784
Action Type:	Other
Date:	07/15/1992
Action:	Leak Discovery
Global Id:	T0606500784
Action Type:	Other
Date:	08/04/1992
Action:	Leak Reported

LUST:

Global Id:	T0606500784
Status:	Open - Case Begin Date
Status Date:	07/15/1992
Global Id:	T0606500784
Status:	Open - Site Assessment
Status Date:	08/26/1992
Global Id:	T0606500784
Status:	Completed - Case Closed

FORD DRY LAKES JOJOBA (Continued) **S110654935**

Status Date: 10/10/1996

CORTESE:

Name:	FORD DRY LAKES JOJOBA
Address:	CHUCKWALLA VALLEY ROAD
City,State,Zip:	BLYTHE, CA 92225
Region:	CORTESE
Envirostor Id:	Not reported
Global ID:	T0606500784
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	COMPLETED - CASE CLOSED
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	FORD DRY LAKES JOJOBA
Address:	CHUCKWALLA VALLEY ROAD
City,State,Zip:	BLYTHE, CA 92225
Site ID:	211645
CERS ID:	T0606500784
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

D15 **USA SELF SERVICE/DOUGLAS STA** **LUST** **S103286350**
ENE **1147 WEST HOBSONWAY** **Cortese** **N/A**
1/4-1/2 **BLYTHE, CA 92225** **CERS**
0.271 mi.
1432 ft. **Site 4 of 4 in cluster D**

Relative:
Higher

Actual:
267 ft.

LUST:

Name:	USA SELF SERVICE/DOUGLAS STA
Address:	1147 WEST HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500889
Global Id:	T0606500889
Latitude:	33.61034882
Longitude:	-114.6096874
Status:	Open - Inactive
Status Date:	11/14/2017
Case Worker:	PL
RB Case Number:	7T2225151
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Regional Board
Local Case Number:	Not reported
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	According to December 29, 2008 report, the MPE remedial systems are complete and ready for startup activities; howver, due to reimbursement delays, as stated in the UTCF's correspondence dated October 23, 2008, and as indicated in Holguin, Fahan & Associates (HFA)'s project summary for third quarter 2008, dated November 13, 2008, the startup and operation of the MPE systems will be delayed. HFA will notify the Regional Board prior to conducting startup activities. - Per HFA's report dated January 2, 2008 (this Site is Site B) It is proposed to use MPE to remove hydrocarbon mass from the vadose and saturated zones, remove PSH, and reduce the vapor intrusion risk. RNA is proposed in conjunction with MPE to address the off-site dissolved-phase hydrocarbons and on-site dissolved-phase hydrocarbons following completion of the MPE activities. An installed MPE system with aboveground conveyance piping is proposed for both Sites A and B.

LUST:

Global Id:	T0606500889
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

Global Id:	T0606500889
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

LUST:

Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	08/09/2011
Action:	Staff Letter
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	06/29/2005
Action:	File review
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	06/21/2007
Action:	File review
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	10/12/2005
Action:	File review
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	10/13/2005
Action:	File review
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	08/18/2006
Action:	Technical Correspondence / Assistance / Other
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	08/12/2006
Action:	File review
Global Id:	T0606500889
Action Type:	ENFORCEMENT
Date:	01/14/2011
Action:	Staff Letter
Global Id:	T0606500889
Action Type:	RESPONSE
Date:	09/20/2010
Action:	Other Report / Document
Global Id:	T0606500889
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Quarterly
Global Id:	T0606500889
Action Type:	RESPONSE
Date:	10/15/2010
Action:	Monitoring Report - Quarterly
Global Id:	T0606500889

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Action Type: ENFORCEMENT
Date: 10/16/2006
Action: Site Visit / Inspection / Sampling

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 11/13/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 08/17/2006
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/04/2008
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 12/21/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 09/25/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 02/10/2006
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/04/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 12/08/2006
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/20/2010
Action: Staff Letter

Global Id: T0606500889
Action Type: Other
Date: 09/13/1994
Action: Leak Discovery

Global Id: T0606500889
Action Type: RESPONSE
Date: 02/01/2004

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Action: Other Workplan

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/21/2010
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 03/08/2011
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 03/10/2011
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/01/2011
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 02/25/2019
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 03/11/2015
Action: Monitoring Report - Semi-Annually

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 12/04/2007
Action: Staff Letter

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 08/15/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 04/21/2008
Action: File review

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/24/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 04/17/2008
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 12/19/2007
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/09/2008
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 06/02/2008
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/11/2011
Action: Staff Letter

Global Id: T0606500889
Action Type: Other
Date: 01/21/1998
Action: Leak Stopped

Global Id: T0606500889
Action Type: RESPONSE
Date: 08/12/2006
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/03/2011
Action: Corrective Action Plan / Remedial Action Plan - Addendum

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/03/2011
Action: Interim Remedial Action Plan

Global Id: T0606500889
Action Type: REMEDIATION
Date: 08/04/2009
Action: In Situ Physical/Chemical Treatment (other than SVE)

Global Id: T0606500889
Action Type: REMEDIATION

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Date: 10/31/2011
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T0606500889
Action Type: REMEDIATION
Date: 08/01/2009
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T0606500889
Action Type: REMEDIATION
Date: 03/06/2012
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 12/01/2003
Action: Staff Letter

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/08/2008
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/22/2018
Action: Email Correspondence

Global Id: T0606500889
Action Type: RESPONSE
Date: 06/15/2005
Action: Well Installation Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/01/2006
Action: Soil and Water Investigation Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/21/2007
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 02/14/2012
Action: Remedial Progress Report

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 09/18/2007
Action: Site Visit / Inspection / Sampling

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 06/17/2013
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 04/30/2013
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 02/21/2019
Action: Notice of Violation

Global Id: T0606500889
Action Type: Other
Date: 01/21/1998
Action: Leak Reported

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/04/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0606500889
Action Type: RESPONSE
Date: 05/01/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 02/01/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/09/2008
Action: Risk Assessment Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/01/2007
Action: Soil and Water Investigation Workplan

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/01/2008
Action: Other Workplan

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/31/2008
Action: Staff Letter

Global Id: T0606500889
Action Type: ENFORCEMENT

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Date: 06/07/2018
Action: Meeting

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/01/2006
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/01/2006
Action: CAP/RAP - Feasibility Study Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/23/2005
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/13/2005
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2006
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 07/16/2009
Action: Staff Letter

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 07/16/2009
Action: Staff Letter

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 07/07/2015
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/03/2018
Action: Health and Safety Code Section 25296.10(c)

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/20/2008
Action: Soil and Water Investigation Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/06/2008
Action: Well Installation Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/30/2008
Action: Remedial Progress Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/31/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/08/2006
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 09/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/02/2007
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/01/2007
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/21/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: ENFORCEMENT

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Date: 12/23/2005
Action: File review

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 10/31/2019
Action: Clean Up Fund - Case Closure Review Summary Report (RSR)

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 10/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 08/21/2008
Action: Well Installation Report

Global Id: T0606500889
Action Type: RESPONSE
Date: 08/05/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 06/02/2008
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/01/2008
Action: Final Remedial Action Report / Corrective Action Report

Global Id: T0606500889
Action Type: ENFORCEMENT
Date: 01/10/2008
Action: File review

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 09/10/2009
Action: Other Report / Document

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 12/14/2009
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 01/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 04/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 05/03/2010
Action: Other Report / Document

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500889
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Quarterly

LUST:
Global Id: T0606500889
Status: Open - Case Begin Date
Status Date: 09/13/1994

Global Id: T0606500889
Status: Open - Site Assessment
Status Date: 01/21/1998

Global Id: T0606500889
Status: Open - Site Assessment
Status Date: 03/10/1998

Global Id: T0606500889
Status: Open - Site Assessment
Status Date: 01/11/1999

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Global Id: T0606500889
Status: Open - Site Assessment
Status Date: 03/20/2000

Global Id: T0606500889
Status: Open - Verification Monitoring
Status Date: 09/24/2007

Global Id: T0606500889
Status: Open - Remediation
Status Date: 01/04/2008

Global Id: T0606500889
Status: Open - Remediation
Status Date: 01/24/2008

Global Id: T0606500889
Status: Open - Remediation
Status Date: 02/03/2009

Global Id: T0606500889
Status: Open - Assessment & Interim Remedial Action
Status Date: 06/18/2009

Global Id: T0606500889
Status: Open - Assessment & Interim Remedial Action
Status Date: 07/01/2009

Global Id: T0606500889
Status: Open - Remediation
Status Date: 11/02/2009

Global Id: T0606500889
Status: Open - Remediation
Status Date: 11/20/2015

Global Id: T0606500889
Status: Open - Inactive
Status Date: 11/14/2017

LUST REG 7:
Region: 7
Status: 5C - Pollution Characterization
Case Num: 7T2225151
Substance: Unleaded gasoline
ID: 1251
Global ID: T0606500889
Lead Agency: Regional Board
Case Worker: RSF

CORTESE:
Name: USA SELF SERVICE/DOUGLAS STA
Address: 1147 WEST HOBSONWAY
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE

USA SELF SERVICE/DOUGLAS STA (Continued) **S103286350**

Envirostor Id:	Not reported
Global ID:	T0606500889
Site/Facility Type:	LUST CLEANUP SITE
Cleanup Status:	OPEN - INACTIVE
Status Date:	Not reported
Site Code:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Owner:	Not reported
Enf Type:	Not reported
Swat R:	Not reported
Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	USA SELF SERVICE/DOUGLAS STA
Address:	1147 WEST HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Site ID:	197426
CERS ID:	T0606500889
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Phan Le - COLORADO RIVER BASIN RWQCB (REGION 7)
Entity Title:	Not reported
Affiliation Address:	73720 FRED WARING DRIVE SUITE #100
Affiliation City:	PALM DESERT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	7607768974

Affiliation Type Desc:	Local Agency Caseworker
Entity Name:	Riverside County LOP - RIVERSIDE COUNTY LOP
Entity Title:	Not reported
Affiliation Address:	3880 LEMON ST SUITE 200
Affiliation City:	RIVERSIDE
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	9519558980

16
WNW
1/4-1/2
0.320 mi.
1689 ft.

J M DEFOREST
12300 HOBSONWAY
BLYTHE, CA 92225

HIST CORTESE **S105022815**
N/A

Relative:
Higher

Actual:
268 ft.

HIST CORTESE:

edr_fname:	J M DEFOREST
edr_fadd1:	12300 HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Region:	CORTESE
Facility County Code:	33
Reg By:	LTNKA
Reg Id:	7T2225048

E17
West
1/4-1/2
0.471 mi.
2485 ft.

J M DEFOREST
12330 WEST HOBSONWAY
BLYTHE, CA 92225

Site 1 of 2 in cluster E

LUST **S117351959**
Cortese **N/A**
CERS

Relative:
Lower

Actual:
266 ft.

LUST:

Name:	J M DEFOREST
Address:	12330 WEST HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500786
Global Id:	T0606500786
Latitude:	33.6099934
Longitude:	-114.6239698
Status:	Completed - Case Closed
Status Date:	02/24/2015
Case Worker:	PL
RB Case Number:	7T2225048
Local Agency:	Not reported
File Location:	Regional Board
Local Case Number:	Not reported
Potential Media Affect:	Under Investigation
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500786
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

LUST:

Global Id:	T0606500786
Action Type:	ENFORCEMENT
Date:	07/14/2014
Action:	Staff Letter

Global Id:	T0606500786
Action Type:	ENFORCEMENT

J M DEFOREST (Continued) **S117351959**

Date: 01/16/2007
Action: File review

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 08/10/2010
Action: File review

Global Id: T0606500786
Action Type: Other
Date: 11/17/1998
Action: Leak Discovery

Global Id: T0606500786
Action Type: Other
Date: 11/17/1998
Action: Leak Stopped

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 09/18/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 12/01/2008
Action: File review

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 03/05/2008
Action: Staff Letter

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 06/03/2013
Action: File review

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 06/24/2012
Action: File review

Global Id: T0606500786
Action Type: Other
Date: 07/28/1999
Action: Leak Reported

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 07/29/2013
Action: Staff Letter

Global Id: T0606500786
Action Type: RESPONSE
Date: 08/05/2013
Action: Verbal Communication

J M DEFOREST (Continued) **S117351959**

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 02/24/2015
Action: Closure/No Further Action Letter

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 08/14/2001
Action: Staff Letter

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 01/22/2000
Action: Staff Letter

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 08/03/2009
Action: Staff Letter

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 11/13/2014
Action: Notification - Public Notice of Case Closure

Global Id: T0606500786
Action Type: ENFORCEMENT
Date: 01/14/2015
Action: Staff Letter

Global Id: T0606500786
Action Type: RESPONSE
Date: 01/16/2007
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0606500786
Action Type: RESPONSE
Date: 02/17/2015
Action: Other Report / Document

LUST:
Global Id: T0606500786
Status: Open - Case Begin Date
Status Date: 11/17/1998

Global Id: T0606500786
Status: Open - Site Assessment
Status Date: 07/28/1999

Global Id: T0606500786
Status: Open - Site Assessment
Status Date: 09/15/1999

Global Id: T0606500786
Status: Open - Site Assessment
Status Date: 03/23/2000

J M DEFOREST (Continued) **S117351959**

Global Id: T0606500786
Status: Open - Remediation
Status Date: 01/11/2007

Global Id: T0606500786
Status: Open - Remediation
Status Date: 01/16/2007

Global Id: T0606500786
Status: Open - Remediation
Status Date: 05/11/2009

Global Id: T0606500786
Status: Open - Inactive
Status Date: 06/18/2009

Global Id: T0606500786
Status: Open - Site Assessment
Status Date: 07/01/2009

Global Id: T0606500786
Status: Open - Inactive
Status Date: 07/02/2009

Global Id: T0606500786
Status: Open - Inactive
Status Date: 07/06/2010

Global Id: T0606500786
Status: Open - Eligible for Closure
Status Date: 08/05/2013

Global Id: T0606500786
Status: Open - Eligible for Closure
Status Date: 05/06/2014

Global Id: T0606500786
Status: Completed - Case Closed
Status Date: 02/24/2015

CORTESE:
Name: J M DEFOREST
Address: 12330 WEST HOBSONWAY
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0606500786
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported

J M DEFOREST (Continued) **S117351959**

Flag:	active
Order No:	Not reported
Waste Discharge System No:	Not reported
Effective Date:	Not reported
Region 2:	Not reported
WID Id:	Not reported
Solid Waste Id No:	Not reported
Waste Management Uit Name:	Not reported
File Name:	Active Open

CERS:

Name:	J M DEFOREST
Address:	12330 WEST HOBSONWAY
City,State,Zip:	BLYTHE, CA 92225
Site ID:	189857
CERS ID:	T0606500786
CERS Description:	Leaking Underground Storage Tank Cleanup Site

Affiliation:

Affiliation Type Desc:	Regional Board Caseworker
Entity Name:	Phan Le - COLORADO RIVER BASIN RWQCB (REGION 7)
Entity Title:	Not reported
Affiliation Address:	73720 FRED WARING DRIVE SUITE #100
Affiliation City:	PALM DESERT
Affiliation State:	CA
Affiliation Country:	Not reported
Affiliation Zip:	Not reported
Affiliation Phone:	7607768974

E18 **J M DEFOREST** **LUST** **S104402617**
West **12330 HOBSONWAY** **N/A**
1/4-1/2 **BLYTHE, CA**
0.471 mi.
2485 ft. **Site 2 of 2 in cluster E**

Relative: **Lower**

Actual: **266 ft.**

LUST REG 7:

Region:	7
Status:	3B - Preliminary Site Assessment Underway
Case Num:	7T2225048
Substance:	Unleaded gasoline
ID:	864
Global ID:	T0606500786
Lead Agency:	Regional Board
Case Worker:	RSF

F19 **UNOCAL STATION #5882** **LUST** **S101300346**
ESE **301 LOVEKIN BLVD S** **Cortese** **N/A**
1/4-1/2 **BLYTHE, CA 92225** **ENF**
0.490 mi. **HIST CORTESE**
2585 ft. **Site 1 of 3 in cluster F** **CERS**

Relative: **Lower**

Actual: **266 ft.**

LUST:

Name:	UNOCAL STATION #5882
Address:	301 LOVEKIN BLVD S
City,State,Zip:	BLYTHE, CA 92225

UNOCAL STATION #5882 (Continued) **S101300346**

Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500764
Global Id:	T0606500764
Latitude:	33.60637
Longitude:	-114.605795
Status:	Completed - Case Closed
Status Date:	03/20/2018
Case Worker:	PL
RB Case Number:	7T2225026
Local Agency:	Not reported
File Location:	Regional Board
Local Case Number:	89851
Potential Media Affect:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	Per HFA's report dated September 2, 2008 An installed MPE system with subsurface conveyance piping is proposed for this Site (Site A)

LUST:

Global Id:	T0606500764
Contact Type:	Regional Board Caseworker
Contact Name:	Phan Le
Organization Name:	COLORADO RIVER BASIN RWQCB (REGION 7)
Address:	73720 FRED WARING DRIVE SUITE #100
City:	PALM DESERT
Email:	phan.le@waterboards.ca.gov
Phone Number:	7607768974

LUST:

Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	04/06/2007
Action:	File review
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	09/01/2004
Action:	Site Visit / Inspection / Sampling
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	02/28/2006
Action:	Staff Letter
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	10/20/2010
Action:	Staff Letter
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	08/18/2014
Action:	Notification - Public Notice of Case Closure
Global Id:	T0606500764
Action Type:	RESPONSE
Date:	05/08/2009

UNOCAL STATION #5882 (Continued) **S101300346**

Action:	Other Report / Document
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	06/21/2007
Action:	File review
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	11/23/2005
Action:	File review
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	12/30/2005
Action:	File review
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	02/09/2006
Action:	File review
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	02/20/2008
Action:	Staff Letter
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	08/09/2011
Action:	Staff Letter
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	01/21/2011
Action:	File review
Global Id:	T0606500764
Action Type:	RESPONSE
Date:	09/20/2010
Action:	Other Report / Document
Global Id:	T0606500764
Action Type:	RESPONSE
Date:	11/01/2010
Action:	Other Report / Document
Global Id:	T0606500764
Action Type:	RESPONSE
Date:	01/15/2011
Action:	Monitoring Report - Quarterly
Global Id:	T0606500764
Action Type:	ENFORCEMENT
Date:	10/24/2007
Action:	File review

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/17/2006
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/16/2006
Action: Site Visit / Inspection / Sampling

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 01/14/2008
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 09/25/2007
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 01/18/2008
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 08/15/2007
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 04/28/2008
Action: Site Visit / Inspection / Sampling

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 09/06/2017
Action: File Review - Closure

Global Id: T0606500764
Action Type: RESPONSE
Date: 02/01/2004
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/15/2011
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 03/10/2011
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE

UNOCAL STATION #5882 (Continued) **S101300346**

Date: 02/07/2011
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2011
Action: Monitoring Report - Semi-Annually

Global Id: T0606500764
Action Type: RESPONSE
Date: 03/13/2018
Action: Well Destruction Report

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/05/2011
Action: Interim Remedial Action Plan - Regulator Responded

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/05/2011
Action: Corrective Action Plan / Remedial Action Plan - Addendum - Regulator Responded

Global Id: T0606500764
Action Type: RESPONSE
Date: 11/12/2014
Action: Well Destruction Report - Regulator Responded

Global Id: T0606500764
Action Type: RESPONSE
Date: 03/24/2014
Action: Soil Vapor Intrusion Investigation Workplan - Regulator Responded

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 03/06/2007
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 09/18/2007
Action: Site Visit / Inspection / Sampling

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/10/2007
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 01/29/2008
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 12/04/2007
Action: Technical Correspondence / Assistance / Other

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 04/17/2008
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 12/21/2007
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/13/2011
Action: Staff Letter

Global Id: T0606500764
Action Type: Other
Date: 06/07/1994
Action: Leak Stopped

Global Id: T0606500764
Action Type: RESPONSE
Date: 12/01/2005
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/01/2011
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 02/14/2012
Action: Remedial Progress Report

Global Id: T0606500764
Action Type: REMEDIATION
Date: 12/01/2011
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T0606500764
Action Type: REMEDIATION
Date: 06/06/2012
Action: Ex Situ Physical/Chemical Treatment (other than P&T, SVE, or Excavation)

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/24/2006
Action: Technical Correspondence / Assistance / Other

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 04/07/2008
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT

UNOCAL STATION #5882 (Continued) **S101300346**

Date: 06/17/2013
Action: File review

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 03/20/2018
Action: Closure/No Further Action Letter

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/01/2006
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/01/2006
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/07/2008
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 12/21/2007
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 12/04/2007
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2012
Action: Monitoring Report - Semi-Annually

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 05/01/2008
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 09/19/2008
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 07/10/2012
Action: Staff Letter

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 12/07/2017
Action: File Review - Closure

Global Id: T0606500764
Action Type: Other
Date: 06/07/1994
Action: Leak Reported

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/01/2006
Action: Other Workplan

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 09/12/2008
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 03/12/2013
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 03/20/2018
Action: Closure Summary

Global Id: T0606500764
Action Type: RESPONSE
Date: 05/01/2008
Action: CAP/RAP - Final Remediation / Design Plan

Global Id: T0606500764
Action Type: RESPONSE
Date: 12/01/2006
Action: CAP/RAP - Feasibility Study Report

Global Id: T0606500764
Action Type: RESPONSE
Date: 12/30/2005
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 11/23/2005
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 01/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE

UNOCAL STATION #5882 (Continued) **S101300346**

Date: 10/15/2007
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/17/2006
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/06/2007
Action: Soil and Water Investigation Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 01/24/2013
Action: Monitoring Report - Other

Global Id: T0606500764
Action Type: RESPONSE
Date: 06/14/2013
Action: Monitoring Report - Semi-Annually

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 12/01/2004
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 07/16/2009
Action: Staff Letter

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 09/05/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0606500764
Action Type: RESPONSE
Date: 08/05/2008
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 08/05/2008
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2007
Action: Monitoring Report - Quarterly

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 01/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 02/01/2008
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 01/31/2008
Action: Corrective Action Plan / Remedial Action Plan

Global Id: T0606500764
Action Type: RESPONSE
Date: 01/22/2014
Action: Monitoring Report - Semi-Annually

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/14/2009
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 08/31/2008
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 09/02/2008
Action: Preliminary Site Assessment Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 08/10/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 09/21/2009
Action: Well Destruction Report

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/31/2008
Action: Remedial Progress Report

Global Id: T0606500764
Action Type: RESPONSE

UNOCAL STATION #5882 (Continued) **S101300346**

Date: 01/18/2008
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 10/01/2007
Action: Other Workplan

Global Id: T0606500764
Action Type: RESPONSE
Date: 08/05/2014
Action: Correspondence

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 05/14/2009
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 10/16/2014
Action: Staff Letter

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 04/16/2014
Action: Clean Up Fund - Letter to RP

Global Id: T0606500764
Action Type: ENFORCEMENT
Date: 04/14/2014
Action: Staff Letter

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2008
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 09/10/2009
Action: Other Report / Document

Global Id: T0606500764
Action Type: RESPONSE
Date: 04/15/2009
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2010
Action: Monitoring Report - Quarterly

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2014
Action: Site Assessment Report

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Action Type: RESPONSE
Date: 07/15/2014
Action: Monitoring Report - Semi-Annually

LUST:
Global Id: T0606500764
Status: Open - Case Begin Date
Status Date: 09/13/1989

Global Id: T0606500764
Status: Open - Site Assessment
Status Date: 09/13/1989

Global Id: T0606500764
Status: Open - Remediation
Status Date: 08/08/1994

Global Id: T0606500764
Status: Open - Remediation
Status Date: 12/16/1994

Global Id: T0606500764
Status: Open - Site Assessment
Status Date: 05/10/2000

Global Id: T0606500764
Status: Open - Site Assessment
Status Date: 04/06/2007

Global Id: T0606500764
Status: Open - Site Assessment
Status Date: 10/02/2007

Global Id: T0606500764
Status: Open - Verification Monitoring
Status Date: 04/17/2008

Global Id: T0606500764
Status: Open - Verification Monitoring
Status Date: 02/13/2009

Global Id: T0606500764
Status: Open - Site Assessment
Status Date: 07/01/2009

Global Id: T0606500764
Status: Open - Remediation
Status Date: 03/17/2011

Global Id: T0606500764
Status: Open - Remediation
Status Date: 05/31/2012

Global Id: T0606500764
Status: Open - Eligible for Closure
Status Date: 07/10/2014

UNOCAL STATION #5882 (Continued) **S101300346**

Global Id: T0606500764
Status: Open - Eligible for Closure
Status Date: 11/20/2015

Global Id: T0606500764
Status: Completed - Case Closed
Status Date: 03/20/2018

LUST REG 7:
Region: 7
Status: 5C - Pollution Characterization
Case Num: 7T2225026
Substance: Gasoline - Automotive
ID: 1232
Global ID: T0606500764
Lead Agency: Regional Board
Case Worker: RSF

CORTESE:
Name: UNOCAL STATION #5882
Address: 301 LOVEKIN BLVD S
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0606500764
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

ENF:
Name: UNOCAL STATION #5882
Address: 301 SOUTH LOVEKIN
City,State,Zip: BLYTHE, CA 92225
Region: 7
Facility Id: 269295
Agency Name: Unocal Service Station 5882 Blythe
Place Type: Facility
Place Subtype: Not reported
Facility Type: All other facilities
Agency Type: Privately-Owned Business

UNOCAL STATION #5882 (Continued) **S101300346**

# Of Agencies:	1
Place Latitude:	33.606607
Place Longitude:	-114.605436
SIC Code 1:	5541
SIC Desc 1:	Gasoline Service Stations
SIC Code 2:	4959
SIC Desc 2:	Sanitary Services, NEC
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported
Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	7B334003N01
Reg Measure Id:	155462
Reg Measure Type:	Unregulated
Region:	7
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	222333

UNOCAL STATION #5882 (Continued) **S101300346**

Region:	7
Order / Resolution Number:	93-086
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	08/06/1993
Adoption/Issuance Date:	Not reported
Achieve Date:	8/20/1993
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 7B334003N01
Description:	LEAKING TANK
Program:	UST
Latest Milestone Completion Date:	8/20/1993
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

Name:	UNOCAL STATION #5882
Address:	301 SOUTH LOVEKIN
City,State,Zip:	BLYTHE, CA 92225
Region:	7
Facility Id:	269295
Agency Name:	Unocal Service Station 5882 Blythe
Place Type:	Facility
Place Subtype:	Not reported
Facility Type:	All other facilities
Agency Type:	Privately-Owned Business
# Of Agencies:	1
Place Latitude:	33.606607
Place Longitude:	-114.605436
SIC Code 1:	5541
SIC Desc 1:	Gasoline Service Stations
SIC Code 2:	4959
SIC Desc 2:	Sanitary Services, NEC
SIC Code 3:	Not reported
SIC Desc 3:	Not reported
NAICS Code 1:	Not reported
NAICS Desc 1:	Not reported
NAICS Code 2:	Not reported
NAICS Desc 2:	Not reported
NAICS Code 3:	Not reported
NAICS Desc 3:	Not reported
# Of Places:	1
Source Of Facility:	Reg Meas
Design Flow:	Not reported
Threat To Water Quality:	Not reported
Complexity:	Not reported
Pretreatment:	Not reported
Facility Waste Type:	Not reported
Facility Waste Type 2:	Not reported
Facility Waste Type 3:	Not reported

UNOCAL STATION #5882 (Continued) **S101300346**

Facility Waste Type 4:	Not reported
Program:	UST
Program Category1:	TANKS
Program Category2:	TANKS
# Of Programs:	1
WDID:	7B334003N01
Reg Measure Id:	155462
Reg Measure Type:	Unregulated
Region:	7
Order #:	Not reported
Npdes# CA#:	Not reported
Major-Minor:	Not reported
Npdes Type:	Not reported
Reclamation:	Not reported
Dredge Fill Fee:	Not reported
301H:	Not reported
Application Fee Amt Received:	Not reported
Status:	Never Active
Status Date:	02/20/2013
Effective Date:	Not reported
Expiration/Review Date:	Not reported
Termination Date:	Not reported
WDR Review - Amend:	Not reported
WDR Review - Revise/Renew:	Not reported
WDR Review - Rescind:	Not reported
WDR Review - No Action Required:	Not reported
WDR Review - Pending:	Not reported
WDR Review - Planned:	Not reported
Status Enrollee:	N
Individual/General:	I
Fee Code:	Not reported
Direction/Voice:	Passive
Enforcement Id(EID):	222239
Region:	7
Order / Resolution Number:	LT930820
Enforcement Action Type:	Clean-up and Abatement Order
Effective Date:	08/20/1993
Adoption/Issuance Date:	Not reported
Achieve Date:	Not reported
Termination Date:	Not reported
ACL Issuance Date:	Not reported
EPL Issuance Date:	Not reported
Status:	Historical
Title:	Enforcement - 7B334003N01
Description:	LEAKING TANK
Program:	UST
Latest Milestone Completion Date:	Not reported
# Of Programs1:	1
Total Assessment Amount:	0
Initial Assessed Amount:	0
Liability $ Amount:	0
Project $ Amount:	0
Liability $ Paid:	0
Project $ Completed:	0
Total $ Paid/Completed Amount:	0

UNOCAL STATION #5882 (Continued) **S101300346**

HIST CORTESE:
- edr_fname: UNOCAL STATION #5882
- edr_fadd1: 301 LOVEKIN
- City,State,Zip: BLYTHE, CA 92225
- Region: CORTESE
- Facility County Code: 33
- Reg By: LTNKA
- Reg Id: 7T2225026

CERS:
- Name: UNOCAL STATION #5882
- Address: 301 LOVEKIN BLVD S
- City,State,Zip: BLYTHE, CA 92225
- Site ID: 194601
- CERS ID: T0606500764
- CERS Description: Leaking Underground Storage Tank Cleanup Site

Affiliation:
- Affiliation Type Desc: Regional Board Caseworker
- Entity Name: Phan Le - COLORADO RIVER BASIN RWQCB (REGION 7)
- Entity Title: Not reported
- Affiliation Address: 73720 FRED WARING DRIVE SUITE #100
- Affiliation City: PALM DESERT
- Affiliation State: CA
- Affiliation Country: Not reported
- Affiliation Zip: Not reported
- Affiliation Phone: 7607768974

F20 **QUIK CHEK LOVEKIN** **LUST S104571464**
ESE **301 S LOVEKIN BLVD** **EMI N/A**
1/4-1/2 **BLYTHE, CA 92225**
0.490 mi.
2585 ft. **Site 2 of 3 in cluster F**

Relative: Lower
Actual: 266 ft.

RIVERSIDE CO. LUST:
- Name: UNOCAL #5882
- Address: 301 S LOVEKIN BLVD
- City,State,Zip: BLYTHE, CA
- Region: RIVERSIDE
- Facility ID: 89851
- Employee: Hoy
- Site Closed: Referred to Water Board
- Case Type: Ground water
- Facility Status: 0
- Casetype Decode: Groundwater is impacted
- Fstatus Decode: Not reported

EMI:
- Name: QUIK CHEK LOVEKIN
- Address: 301 S LOVEKIN BLVD
- City,State,Zip: BLYTHE, CA 92225
- Year: 2014
- County Code: 33
- Air Basin: MD
- Facility ID: 73701918
- Air District Name: MOJ

QUIK CHEK LOVEKIN (Continued) **S104571464**

SIC Code:	5541
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	B
Total Organic Hydrocarbon Gases Tons/Yr:	0.122709404
Reactive Organic Gases Tons/Yr:	0.122709404
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	QUIK CHEK LOVEKIN
Address:	301 S LOVEKIN BLVD
City,State,Zip:	BLYTHE, CA 92225
Year:	2015
County Code:	33
Air Basin:	MD
Facility ID:	73701918
Air District Name:	MOJ
SIC Code:	5541
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.115975038
Reactive Organic Gases Tons/Yr:	0.115975038
Carbon Monoxide Emissions Tons/Yr:	0
NOX - Oxides of Nitrogen Tons/Yr:	0
SOX - Oxides of Sulphur Tons/Yr:	0
Particulate Matter Tons/Yr:	0
Part. Matter 10 Micrometers and Smllr Tons/Yr:	0

Name:	QUIK CHEK LOVEKIN
Address:	301 S LOVEKIN BLVD
City,State,Zip:	BLYTHE, CA 92225
Year:	2016
County Code:	33
Air Basin:	MD
Facility ID:	73701918
Air District Name:	MOJ
SIC Code:	5541
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	0.115975038
Reactive Organic Gases Tons/Yr:	0.115975038
Carbon Monoxide Emissions Tons/Yr:	Not reported
NOX - Oxides of Nitrogen Tons/Yr:	Not reported
SOX - Oxides of Sulphur Tons/Yr:	Not reported
Particulate Matter Tons/Yr:	Not reported
Part. Matter 10 Micrometers and Smllr Tons/Yr:	Not reported

F21
ESE
1/4-1/2
0.490 mi.
2585 ft.

UNOCAL SERVICE STATION #5882
301 SOUTH LOVEKIN BOULEVA
BLYTHE, CA

Site 3 of 3 in cluster F

Notify 65 **S100210710**
N/A

Relative:
Lower

Actual:
266 ft.

NOTIFY 65:

Name:	UNOCAL SERVICE STATION #5882
Address:	301 SOUTH LOVEKIN BOULEVA
City,State,Zip:	BLYTHE, CA
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

22
East
1/2-1
0.547 mi.
2888 ft.

E-Z SERVE NO. 100885
738 WEST HOBSON WAY
BLYTHE, CA, CA

Notify 65 **S100231345**
N/A

Relative:
Higher

Actual:
268 ft.

NOTIFY 65:

Name:	E-Z SERVE NO. 100885
Address:	738 WEST HOBSON WAY
City,State,Zip:	BLYTHE, CA, CA
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

23
ENE
1/2-1
0.555 mi.
2930 ft.

E.Z. MARTE #2
295 NORTH LOVEKIN
BLYTHE, CA 92225

Notify 65 **S100178677**
N/A

Relative:
Higher

Actual:
269 ft.

NOTIFY 65:

Name:	E.Z. MARTE #2
Address:	295 NORTH LOVEKIN
City,State,Zip:	BLYTHE, CA 92225-1429
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

24
ENE
1/2-1
0.962 mi.
5082 ft.

COMMUNICATIONS
260 NORTH SPRING
BLYTHE, CA 92225

LUST
Cortese
Notify 65

S100178972
N/A

Relative:
Higher

Actual:
271 ft.

LUST:

Name:	RVSD CO SHERIFF'S COMMUNICATION
Address:	260 NORTH SPRING STREET
City,State,Zip:	BLYTHE, CA 92225
Lead Agency:	RIVERSIDE COUNTY LOP
Case Type:	LUST Cleanup Site
Geo Track:	http://geotracker.waterboards.ca.gov/profile_report.asp?global_id=T0606500755
Global Id:	T0606500755
Latitude:	33.6080785
Longitude:	-114.598009
Status:	Completed - Case Closed
Status Date:	08/28/1992
Case Worker:	RIV
RB Case Number:	7T2225017
Local Agency:	RIVERSIDE COUNTY LOP
File Location:	Local Agency Warehouse
Local Case Number:	89218
Potential Media Affect:	Soil
Potential Contaminants of Concern:	Gasoline
Site History:	Not reported

LUST:

Global Id:	T0606500755
Contact Type:	Local Agency Caseworker
Contact Name:	Riverside County LOP
Organization Name:	RIVERSIDE COUNTY LOP
Address:	3880 LEMON ST SUITE 200
City:	RIVERSIDE
Email:	Not reported
Phone Number:	9519558980

LUST:

Global Id:	T0606500755
Action Type:	ENFORCEMENT
Date:	09/07/2008
Action:	File review - #RCDEH Upload Site File 8/16/2010
Global Id:	T0606500755
Action Type:	Other
Date:	02/27/1989
Action:	Leak Discovery
Global Id:	T0606500755
Action Type:	ENFORCEMENT
Date:	09/08/2008
Action:	Closure/No Further Action Letter - #RivCo Closure
Global Id:	T0606500755
Action Type:	Other
Date:	02/27/1989
Action:	Leak Reported

COMMUNICATIONS (Continued) **S100178972**

LUST:
Global Id: T0606500755
Status: Open - Case Begin Date
Status Date: 02/27/1989

Global Id: T0606500755
Status: Completed - Case Closed
Status Date: 08/28/1992

CORTESE:
Name: RVSD CO SHERIFF'S COMMUNICATION
Address: 260 NORTH SPRING STREET
City,State,Zip: BLYTHE, CA 92225
Region: CORTESE
Envirostor Id: Not reported
Global ID: T0606500755
Site/Facility Type: LUST CLEANUP SITE
Cleanup Status: COMPLETED - CASE CLOSED
Status Date: Not reported
Site Code: Not reported
Latitude: Not reported
Longitude: Not reported
Owner: Not reported
Enf Type: Not reported
Swat R: Not reported
Flag: active
Order No: Not reported
Waste Discharge System No: Not reported
Effective Date: Not reported
Region 2: Not reported
WID Id: Not reported
Solid Waste Id No: Not reported
Waste Management Uit Name: Not reported
File Name: Active Open

NOTIFY 65:
Name: COMMUNICATIONS
Address: 260 NORTH SPRING
City,State,Zip: BLYTHE, CA 92225-1641
Date Reported: Not reported
Staff Initials: Not reported
Board File Number: Not reported
Facility Type: Not reported
Discharge Date: Not reported
Issue Date: Not reported
Incident Description: Not reported

25
ESE
1/2-1
0.991 mi.
5231 ft.

PALO VERDE IRRIGATION DISTRICT
180 14TH ST W
BLYTHE, CA 92225

LUST **U000031776**
CPS-SLIC **N/A**
HIST UST
EMI
Notify 65

Relative:
Higher

Actual:
267 ft.

LUST REG 7:

Region:	7
Status:	8 - Verification Monitoring Underway
Case Num:	7T2225041
Substance:	Gasoline - Automotive
ID:	1076
Global ID:	T0606500779
Lead Agency:	Regional Board
Case Worker:	YO

SLIC REG 7:

Region:	7
Responsible Party Name:	Palo Verde Irrigation Distrct
Facility Status:	Active
SLIC File Code:	PVID
Township / Range:	Not reported
Hydrologic Unit:	Not reported
Groundwater Levels:	8 to 12 feet bgs
Case Reference:	7SLC1300002
Consultant ID:	15
Agency ID:	Not reported

CPS-SLIC:

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180 14TH ST W
City,State,Zip:	BLYTHE, CA 92225
Region:	STATE
Facility Status:	**Open - Eligible for Closure**
Status Date:	11/21/2019
Global Id:	T0606500779
Lead Agency:	COLORADO RIVER BASIN RWQCB (REGION 7)
Lead Agency Case Number:	91656
Latitude:	33.601910156
Longitude:	-114.59908961
Case Type:	Cleanup Program Site
Case Worker:	PL
Local Agency:	RIVERSIDE COUNTY LOP
RB Case Number:	7T2225041
File Location:	Regional Board
Potential Media Affected:	Aquifer used for drinking water supply
Potential Contaminants of Concern:	Gasoline
Site History:	The site occupies an area of about 13 acres and features administrative offices, indoor and outdoor and outdoor storage facilities, vehicle maintenance facilities and vehicle fueling facilities. Historically, soil and groundwater beneath portions of the PVID yard have been impacted by releases of diesel and gasoline fuel. The impacted areas include: an area beneath the former diesel aboveground storage tanks (ASTs), the area beneath the former fueling facitlity where the former underground storage tanks (USTs) were located, and a smaller area of groundwater impacted by dissolved phase gasoline beneath the existing fueling facility.

PALO VERDE IRRIGATION DISTRICT (Continued) **U000031776**

Click here to access the California GeoTracker records for this facility:

HIST UST:

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180 WEST 14TH AVENUE
City,State,Zip:	BLYTHE, CA 92225
File Number:	0001F872
URL:	http://geotracker.waterboards.ca.gov/ustpdfs/pdf/0001F872.pdf
Region:	Not reported
Facility ID:	Not reported
Facility Type:	Not reported
Other Type:	Not reported
Contact Name:	Not reported
Telephone:	Not reported
Owner Name:	Not reported
Owner Address:	Not reported
Owner City,St,Zip:	Not reported
Total Tanks:	Not reported

Tank Num:	Not reported
Container Num:	Not reported
Year Installed:	Not reported
Tank Capacity:	Not reported
Tank Used for:	Not reported
Type of Fuel:	Not reported
Container Construction Thickness:	Not reported
Leak Detection:	Not reported

Click here for Geo Tracker PDF:

EMI:

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180TH WEST 14TH AVENUE
City,State,Zip:	BLYTHE, CA 92225
Year:	2011
County Code:	33
Air Basin:	MD
Facility ID:	75201455
Air District Name:	MOJ
SIC Code:	4971
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.3001941
Reactive Organic Gases Tons/Yr:	1.3001941
Carbon Monoxide Emissions Tons/Yr:	3.394509
NOX - Oxides of Nitrogen Tons/Yr:	15.6080855
SOX - Oxides of Sulphur Tons/Yr:	0.002595805
Particulate Matter Tons/Yr:	1.2034382
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.2034382

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180TH WEST 14TH AVENUE
City,State,Zip:	BLYTHE, CA 92225
Year:	2012

PALO VERDE IRRIGATION DISTRICT (Continued) **U000031776**

County Code:	33
Air Basin:	MD
Facility ID:	75201455
Air District Name:	MOJ
SIC Code:	4971
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.3001941
Reactive Organic Gases Tons/Yr:	1.3001941
Carbon Monoxide Emissions Tons/Yr:	3.394509
NOX - Oxides of Nitrogen Tons/Yr:	15.6080855
SOX - Oxides of Sulphur Tons/Yr:	0.002595805
Particulate Matter Tons/Yr:	1.2034382
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.2034382

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180TH WEST 14TH AVENUE
City,State,Zip:	BLYTHE, CA 92225
Year:	2013
County Code:	33
Air Basin:	MD
Facility ID:	75201455
Air District Name:	MOJ
SIC Code:	4971
Air District Name:	MOJAVE DESERT AQMD
Community Health Air Pollution Info System:	Not reported
Consolidated Emission Reporting Rule:	Not reported
Total Organic Hydrocarbon Gases Tons/Yr:	1.3001941
Reactive Organic Gases Tons/Yr:	1.3001941
Carbon Monoxide Emissions Tons/Yr:	3.394509
NOX - Oxides of Nitrogen Tons/Yr:	15.6080855
SOX - Oxides of Sulphur Tons/Yr:	0.002595805
Particulate Matter Tons/Yr:	1.2034382
Part. Matter 10 Micrometers and Smllr Tons/Yr:	1.2034382

NOTIFY 65:

Name:	PALO VERDE IRRIGATION DISTRICT
Address:	180 WEST 14TH AVENUE
City,State,Zip:	BLYTHE, CA 92225-2714
Date Reported:	Not reported
Staff Initials:	Not reported
Board File Number:	Not reported
Facility Type:	Not reported
Discharge Date:	Not reported
Issue Date:	Not reported
Incident Description:	Not reported

Count: 1 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
BLYTHE	S105418542	CALTRANS BLYTHE MAINTENANCE	BROADWAY & WELLS		LUST

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

Number of Days to Update: Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

STANDARD ENVIRONMENTAL RECORDS

Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
Telephone: 415-947-4246

EPA Region 10
Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 09/03/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991
Date Data Arrived at EDR: 02/02/1994
Date Made Active in Reports: 03/30/1994
Number of Days to Update: 56

Source: EPA
Telephone: 202-564-4267
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

Federal Delisted NPL site list

Delisted NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: N/A
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

Federal CERCLIS list

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 04/03/2019
Date Data Arrived at EDR: 04/05/2019
Date Made Active in Reports: 05/14/2019
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/03/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list the site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. The decision does not necessarily mean that there is no hazard associated with a given site; it only means that. based upon available information, the location is not judged to be potential NPL site.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Quarterly

Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 87

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

RCRA-VSQG: RCRA - Very Small Quantity Generators (Formerly Conditionally Exempt Small Quantity Generators)

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Very small quantity generators (VSQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/18/2020
Number of Days to Update: 30

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

US INST CONTROLS: Institutional Controls Sites List

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 02/13/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 05/15/2020
Number of Days to Update: 85

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 87

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

State- and tribal - equivalent NPL

RESPONSE: State Response Sites

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifes sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

State and tribal landfill and/or solid waste disposal site lists

SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inve ntory of solid waste disposal facilities or landfills. These may be active or i nactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Resources Recycling and Recovery
Telephone: 916-341-6320
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

State and tribal leaking storage tank lists

LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: California Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-622-2433
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

Date of Government Version: 05/19/2003
Date Data Arrived at EDR: 05/19/2003
Date Made Active in Reports: 06/02/2003
Number of Days to Update: 14

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-542-4786
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35

Source: California Regional Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6710
Last EDR Contact: 09/06/2011
Next Scheduled EDR Contact: 12/19/2011
Data Release Frequency: No Update Planned

LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001
Date Data Arrived at EDR: 04/23/2001
Date Made Active in Reports: 05/21/2001
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-637-5595
Last EDR Contact: 09/26/2011
Next Scheduled EDR Contact: 01/09/2012
Data Release Frequency: No Update Planned

LUST: Leaking Underground Fuel Tank Report (GEOTRACKER)

Leaking Underground Storage Tank (LUST) Sites included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: see region list
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

Date of Government Version: 07/01/2008
Date Data Arrived at EDR: 07/22/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 9

Source: California Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-4834
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

LUST REG 6V: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

Date of Government Version: 06/07/2005
Date Data Arrived at EDR: 06/07/2005
Date Made Active in Reports: 06/29/2005
Number of Days to Update: 22

Source: California Regional Water Quality Control Board Victorville Branch Office (6)
Telephone: 760-241-7365
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

LUST REG 1: Active Toxic Site Investigation
Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/01/2001
Date Data Arrived at EDR: 02/28/2001
Date Made Active in Reports: 03/29/2001
Number of Days to Update: 29

Source: California Regional Water Quality Control Board North Coast (1)
Telephone: 707-570-3769
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 8: Leaking Underground Storage Tanks
California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 02/14/2005
Date Data Arrived at EDR: 02/15/2005
Date Made Active in Reports: 03/28/2005
Number of Days to Update: 41

Source: California Regional Water Quality Control Board Santa Ana Region (8)
Telephone: 909-782-4496
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

LUST REG 7: Leaking Underground Storage Tank Case Listing
Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

Date of Government Version: 02/26/2004
Date Data Arrived at EDR: 02/26/2004
Date Made Active in Reports: 03/24/2004
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Colorado River Basin Region (7)
Telephone: 760-776-8943
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

LUST REG 6L: Leaking Underground Storage Tank Case Listing
For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 09/09/2003
Date Data Arrived at EDR: 09/10/2003
Date Made Active in Reports: 10/07/2003
Number of Days to Update: 27

Source: California Regional Water Quality Control Board Lahontan Region (6)
Telephone: 530-542-5572
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/15/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

CPS-SLIC: Statewide SLIC Cases (GEOTRACKER)
Cleanup Program Sites (CPS; also known as Site Cleanups [SC] and formerly known as Spills, Leaks, Investigations, and Cleanups [SLIC] sites) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003
Date Data Arrived at EDR: 04/07/2003
Date Made Active in Reports: 04/25/2003
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)
Telephone: 707-576-2220
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004
Date Data Arrived at EDR: 10/20/2004
Date Made Active in Reports: 11/19/2004
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)
Telephone: 510-286-0457
Last EDR Contact: 09/19/2011
Next Scheduled EDR Contact: 01/02/2012
Data Release Frequency: No Update Planned

SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006
Date Data Arrived at EDR: 05/18/2006
Date Made Active in Reports: 06/15/2006
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)
Telephone: 805-549-3147
Last EDR Contact: 07/18/2011
Next Scheduled EDR Contact: 10/31/2011
Data Release Frequency: No Update Planned

SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004
Date Data Arrived at EDR: 11/18/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)
Telephone: 213-576-6600
Last EDR Contact: 07/01/2011
Next Scheduled EDR Contact: 10/17/2011
Data Release Frequency: No Update Planned

SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005
Date Data Arrived at EDR: 04/05/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)
Telephone: 916-464-3291
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005
Date Data Arrived at EDR: 05/25/2005
Date Made Active in Reports: 06/16/2005
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch
Telephone: 619-241-6583
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 6L: SLIC Sites
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004
Date Data Arrived at EDR: 09/07/2004
Date Made Active in Reports: 10/12/2004
Number of Days to Update: 35
Source: California Regional Water Quality Control Board, Lahontan Region
Telephone: 530-542-5574
Last EDR Contact: 08/15/2011
Next Scheduled EDR Contact: 11/28/2011
Data Release Frequency: No Update Planned

SLIC REG 7: SLIC List
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004
Date Data Arrived at EDR: 11/29/2004
Date Made Active in Reports: 01/04/2005
Number of Days to Update: 36
Source: California Regional Quality Control Board, Colorado River Basin Region
Telephone: 760-346-7491
Last EDR Contact: 08/01/2011
Next Scheduled EDR Contact: 11/14/2011
Data Release Frequency: No Update Planned

SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008
Date Data Arrived at EDR: 04/03/2008
Date Made Active in Reports: 04/14/2008
Number of Days to Update: 11
Source: California Region Water Quality Control Board Santa Ana Region (8)
Telephone: 951-782-3298
Last EDR Contact: 09/12/2011
Next Scheduled EDR Contact: 12/26/2011
Data Release Frequency: No Update Planned

SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing
The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/10/2007
Date Data Arrived at EDR: 09/11/2007
Date Made Active in Reports: 09/28/2007
Number of Days to Update: 17
Source: California Regional Water Quality Control Board San Diego Region (9)
Telephone: 858-467-2980
Last EDR Contact: 08/08/2011
Next Scheduled EDR Contact: 11/21/2011
Data Release Frequency: No Update Planned

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 02/01/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

UST: Active UST Facilities
Active UST facilities gathered from the local regulatory agencies

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72
Source: SWRCB
Telephone: 916-341-5851
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Semi-Annually

MILITARY UST SITES: Military UST Sites (GEOTRACKER)
Military ust sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

UST CLOSURE: Proposed Closure of Underground Storage Tank (UST) Cases
UST cases that are being considered for closure by either the State Water Resources Control Board or the Executive Director have been posted for a 60-day public comment period. UST Case Closures being proposed for consideration by the State Water Resources Control Board. These are primarily UST cases that meet closure criteria under the decisional framework in State Water Board Resolution No. 92-49 and other Board orders. UST Case Closures proposed for consideration by the Executive Director pursuant to State Water Board Resolution No. 2012-0061. These are cases that meet the criteria of the Low-Threat UST Case Closure Policy. UST Case Closure Review Denials and Approved Orders.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-327-7844
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

AST: Aboveground Petroleum Storage Tank Facilities
A listing of aboveground storage tank petroleum storage tank locations.

Date of Government Version: 07/06/2016
Date Data Arrived at EDR: 07/12/2016
Date Made Active in Reports: 09/19/2016
Number of Days to Update: 69

Source: California Environmental Protection Agency
Telephone: 916-327-5092
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Varies

INDIAN UST R4: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/26/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 78

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R7: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R10: Underground Storage Tanks on Indian Land
The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 07/23/2020
Next Scheduled EDR Contact: 11/01/2020
Data Release Frequency: Varies

INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 84

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 04/14/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 85

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

State and tribal voluntary cleanup sites

VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng
A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing
A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Considered Brownfieds Sites Listing
A listing of sites the SWRCB considers to be Brownfields since these are sites have come to them through the MOA Process.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74

Source: State Water Resources Control Board
Telephone: 916-323-7905
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites
Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 7

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

WMUDS/SWAT: Waste Management Unit Database
Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 04/10/2000
Date Made Active in Reports: 05/10/2000
Number of Days to Update: 30

Source: State Water Resources Control Board
Telephone: 916-227-4448
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: No Update Planned

SWRCY: Recycler Database
A listing of recycling facilities in California.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

HAULERS: Registered Waste Tire Haulers Listing
A listing of registered waste tire haulers.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Integrated Waste Management Board
Telephone: 916-341-6422
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands
Location of open dumps on Indian land.

Date of Government Version: 12/31/1998
Date Data Arrived at EDR: 12/03/2007
Date Made Active in Reports: 01/24/2008
Number of Days to Update: 52

Source: Environmental Protection Agency
Telephone: 703-308-8245
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ODI: Open Dump Inventory
An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985
Date Data Arrived at EDR: 08/09/2004
Date Made Active in Reports: 09/17/2004
Number of Days to Update: 39

Source: Environmental Protection Agency
Telephone: 800-424-9346
Last EDR Contact: 06/09/2004
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations
A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009
Date Data Arrived at EDR: 05/07/2009
Date Made Active in Reports: 09/21/2009
Number of Days to Update: 137

Source: EPA, Region 9
Telephone: 415-947-4219
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176

Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005
Date Data Arrived at EDR: 08/03/2006
Date Made Active in Reports: 08/24/2006
Number of Days to Update: 21

Source: Department of Toxic Substance Control
Telephone: 916-323-3400
Last EDR Contact: 02/23/2009
Next Scheduled EDR Contact: 05/25/2009
Data Release Frequency: No Update Planned

SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 06/30/2019
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-255-6504
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

CERS HAZ WASTE: CERS HAZ WASTE

List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Hazardous Chemical Management, Hazardous Waste Onsite Treatment, Household Hazardous Waste Collection, Hazardous Waste Generator, and RCRA LQ HW Generator programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: CalEPA
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995
Date Data Arrived at EDR: 08/30/1995
Date Made Active in Reports: 09/26/1995
Number of Days to Update: 27

Source: State Water Resources Control Board
Telephone: 916-227-4364
Last EDR Contact: 01/26/2009
Next Scheduled EDR Contact: 04/27/2009
Data Release Frequency: No Update Planned

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 03/18/2020
Date Data Arrived at EDR: 03/19/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 82

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Quarterly

PFAS: PFAS Contamination Site Location Listing

A listing of PFAS contaminated sites included in the GeoTracker database.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

Local Lists of Registered Storage Tanks

SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

Date of Government Version: 06/01/1994
Date Data Arrived at EDR: 07/07/2005
Date Made Active in Reports: 08/11/2005
Number of Days to Update: 35

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/03/2005
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

Date of Government Version: 05/20/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 08/06/2020
Number of Days to Update: 78

Source: Department of Public Health
Telephone: 707-463-4466
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Annually

HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

Date of Government Version: 10/15/1990
Date Data Arrived at EDR: 01/25/1991
Date Made Active in Reports: 02/12/1991
Number of Days to Update: 18

Source: State Water Resources Control Board
Telephone: 916-341-5851
Last EDR Contact: 07/26/2001
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

SAN FRANCISCO AST: Aboveground Storage Tank Site Listing
Aboveground storage tank sites

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: San Francisco County Department of Public Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

CERS TANKS: California Environmental Reporting System (CERS) Tanks
List of sites in the California Environmental Protection Agency (CalEPA) Regulated Site Portal which fall under the Aboveground Petroleum Storage and Underground Storage Tank regulatory programs.

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

CA FID UST: Facility Inventory Database
The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

Date of Government Version: 10/31/1994
Date Data Arrived at EDR: 09/05/1995
Date Made Active in Reports: 09/29/1995
Number of Days to Update: 24

Source: California Environmental Protection Agency
Telephone: 916-341-5851
Last EDR Contact: 12/28/1998
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Local Land Records

LIENS: Environmental Liens Listing
A listing of property locations with environmental liens for California where DTSC is a lien holder.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

LIENS 2: CERCLA Lien Information
A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Semi-Annually

DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73
Source: DTSC and SWRCB
Telephone: 916-323-3400
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

Records of Emergency Release Reports

HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/23/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 86
Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/31/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 79
Source: Office of Emergency Services
Telephone: 916-845-8400
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

LDS: Land Disposal Sites Listing (GEOTRACKER)

Land Disposal sites (Landfills) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Qualilty Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

MCS: Military Cleanup Sites Listing (GEOTRACKER)

Military sites (consisting of: Military UST sites; Military Privatized sites; and Military Cleanup sites [formerly known as DoD non UST]) included in GeoTracker. GeoTracker is the Water Boards data management system for sites that impact, or have the potential to impact, water quality in California, with emphasis on groundwater.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 06/06/2012
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

Source: FirstSearch
Telephone: N/A
Last EDR Contact: 01/03/2013
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

Other Ascertainable Records

RCRA NonGen / NLR: RCRA - Non Generators / No Longer Regulated

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/18/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: (415) 495-8895
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 05/13/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 86

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/11/2018
Date Made Active in Reports: 11/06/2019
Number of Days to Update: 574

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: N/A

SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/05/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 06/15/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 80

Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2016
Date Data Arrived at EDR: 06/17/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/18/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Every 4 Years

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 79

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 03/01/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/15/2020
Number of Days to Update: 85

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Annually

ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Annually

RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 01/31/2020
Date Data Arrived at EDR: 05/13/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 82

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 07/15/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995
Date Data Arrived at EDR: 07/03/1995
Date Made Active in Reports: 08/07/1995
Number of Days to Update: 35

Source: EPA
Telephone: 202-564-4104
Last EDR Contact: 06/02/2008
Next Scheduled EDR Contact: 09/01/2008
Data Release Frequency: No Update Planned

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 06/09/2020
Number of Days to Update: 34

Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 10/09/2019
Date Data Arrived at EDR: 10/11/2019
Date Made Active in Reports: 12/20/2019
Number of Days to Update: 70

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICIS: Integrated Compliance Information System
The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25

Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: No Update Planned

MLTS: Material Licensing Tracking System
MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 10/25/2019
Date Data Arrived at EDR: 10/25/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 82

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

COAL ASH DOE: Steam-Electric Plant Operation Data
A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 12/04/2019
Date Made Active in Reports: 01/15/2020
Number of Days to Update: 42
Source: Department of Energy
Telephone: 202-586-8719
Last EDR Contact: 09/04/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List
A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 01/12/2017
Date Data Arrived at EDR: 03/05/2019
Date Made Active in Reports: 11/11/2019
Number of Days to Update: 251
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

PCB TRANSFORMER: PCB Transformer Registration Database
The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 09/13/2019
Date Data Arrived at EDR: 11/06/2019
Date Made Active in Reports: 02/10/2020
Number of Days to Update: 96
Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

RADINFO: Radiation Information Database
The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 07/01/2019
Date Data Arrived at EDR: 07/01/2019
Date Made Active in Reports: 09/23/2019
Number of Days to Update: 84
Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 09/24/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing
A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2007
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing
A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006
Date Data Arrived at EDR: 03/01/2007
Date Made Active in Reports: 04/10/2007
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 12/17/2008
Next Scheduled EDR Contact: 03/17/2008
Data Release Frequency: No Update Planned

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 01/02/2020
Date Data Arrived at EDR: 01/28/2020
Date Made Active in Reports: 04/17/2020
Number of Days to Update: 80

Source: Department of Transporation, Office of Pipeline Safety
Telephone: 202-366-4595
Last EDR Contact: 07/27/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/21/2020
Number of Days to Update: 6

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 09/22/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Biennially

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 08/30/2019
Date Data Arrived at EDR: 11/15/2019
Date Made Active in Reports: 01/28/2020
Number of Days to Update: 74

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/29/2020
Date Data Arrived at EDR: 08/03/2020
Date Made Active in Reports: 08/25/2020
Number of Days to Update: 22

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Varies

LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001
Date Data Arrived at EDR: 10/27/2010
Date Made Active in Reports: 12/02/2010
Number of Days to Update: 36

Source: American Journal of Public Health
Telephone: 703-305-6451
Last EDR Contact: 12/02/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/21/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 84

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Semi-Annually

MINES VIOLATIONS: MSHA Violation Assessment Data

Mines violation and assessment information. Department of Labor, Mine Safety & Health Administration.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77

Source: DOL, Mine Safety & Health Admi
Telephone: 202-693-9424
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/27/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 78

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/10/2020
Number of Days to Update: 80

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 02/03/2020
Date Data Arrived at EDR: 03/03/2020
Date Made Active in Reports: 05/28/2020
Number of Days to Update: 86

Source: EPA
Telephone: (415) 947-8000
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

ECHO: Enforcement & Compliance History Information

ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 06/27/2020
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/28/2020
Number of Days to Update: 88

Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

DOCKET HWC: Hazardous Waste Compliance Docket Listing
A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71
Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

UXO: Unexploded Ordnance Sites
A listing of unexploded ordnance site locations

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77
Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 76
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

CA BOND EXP. PLAN: Bond Expenditure Plan
Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989
Date Data Arrived at EDR: 07/27/1994
Date Made Active in Reports: 08/02/1994
Number of Days to Update: 6
Source: Department of Health Services
Telephone: 916-255-2118
Last EDR Contact: 05/31/1994
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CORTESE: "Cortese" Hazardous Waste & Substances Sites List
The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

Date of Government Version: 06/22/2020
Date Data Arrived at EDR: 06/22/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 74
Source: CAL EPA/Office of Emergency Information
Telephone: 916-323-3400
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

CUPA SAN FRANCISCO CO: CUPA Facility Listing
Cupa facilities

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72
Source: San Francisco County Department of Environmental Health
Telephone: 415-252-3896
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

CUPA LIVERMORE-PLEASANTON: CUPA Facility Listing
list of facilities associated with the various CUPA programs in Livermore-Pleasanton

Date of Government Version: 05/01/2019
Date Data Arrived at EDR: 05/14/2019
Date Made Active in Reports: 07/17/2019
Number of Days to Update: 64

Source: Livermore-Pleasanton Fire Department
Telephone: 925-454-2361
Last EDR Contact: 08/14/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

Date of Government Version: 06/04/2020
Date Data Arrived at EDR: 06/05/2020
Date Made Active in Reports: 08/17/2020
Number of Days to Update: 73

Source: Department of Toxic Substance Control
Telephone: 916-327-4498
Last EDR Contact: 08/24/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Annually

DRYCLEAN SOUTH COAST: South Coast Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the South Coast Air Quality Management District

Date of Government Version: 08/19/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 09/04/2020
Number of Days to Update: 14

Source: South Coast Air Quality Management District
Telephone: 909-396-3211
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

DRYCLEAN AVAQMD: Antelope Valley Air Quality Management District Drycleaner Listing

A listing of dry cleaners in the Antelope Valley Air Quality Management District.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 05/29/2020
Date Made Active in Reports: 08/12/2020
Number of Days to Update: 75

Source: Antelope Valley Air Quality Management District
Telephone: 661-723-8070
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 06/16/2020
Date Made Active in Reports: 08/28/2020
Number of Days to Update: 73

Source: California Air Resources Board
Telephone: 916-322-2990
Last EDR Contact: 09/18/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Varies

ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

Date of Government Version: 04/03/2020
Date Data Arrived at EDR: 04/07/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 8

Source: State Water Resoruces Control Board
Telephone: 916-445-9379
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial Assurance information

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 916-255-3628
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: California Integrated Waste Management Board
Telephone: 916-341-6066
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Varies

HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method. This database begins with calendar year 1993.

Date of Government Version: 12/31/2019
Date Data Arrived at EDR: 04/15/2020
Date Made Active in Reports: 07/02/2020
Number of Days to Update: 78

Source: California Environmental Protection Agency
Telephone: 916-255-1136
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

ICE: ICE

Contains data pertaining to the Permitted Facilities with Inspections / Enforcements sites tracked in Envirostor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Department of Toxic Subsances Control
Telephone: 877-786-9427
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CALSITES]. This listing is no longer updated by the state agency.

Date of Government Version: 04/01/2001
Date Data Arrived at EDR: 01/22/2009
Date Made Active in Reports: 04/08/2009
Number of Days to Update: 76

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 01/22/2009
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/18/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 74

Source: Department of Toxic Substances Control
Telephone: 916-323-3400
Last EDR Contact: 08/17/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Quarterly

HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/06/2020
Date Data Arrived at EDR: 07/07/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 72

Source: Department of Toxic Substances Control
Telephone: 916-440-7145
Last EDR Contact: 07/07/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Quarterly

MINES: Mines Site Location Listing
A listing of mine site locations from the Office of Mine Reclamation.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-322-1080
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

MWMP: Medical Waste Management Program Listing
The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/28/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73
Source: Department of Public Health
Telephone: 916-558-1784
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

NPDES: NPDES Permits Listing
A listing of NPDES permits, including stormwater.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/28/2020
Number of Days to Update: 77
Source: State Water Resources Control Board
Telephone: 916-445-9379
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: Quarterly

PEST LIC: Pesticide Regulation Licenses Listing
A listing of licenses and certificates issued by the Department of Pesticide Regulation. The DPR issues licenses and/or certificates to: Persons and businesses that apply or sell pesticides; Pest control dealers and brokers; Persons who advise on agricultural pesticide applications.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73
Source: Department of Pesticide Regulation
Telephone: 916-445-4038
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

PROC: Certified Processors Database
A listing of certified processors.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: Department of Conservation
Telephone: 916-323-3836
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

NOTIFY 65: Proposition 65 Records
Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

Date of Government Version: 08/21/2020
Date Data Arrived at EDR: 08/21/2020
Date Made Active in Reports: 08/27/2020
Number of Days to Update: 6
Source: State Water Resources Control Board
Telephone: 916-445-3846
Last EDR Contact: 08/20/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: No Update Planned

UIC: UIC Listing
A listing of wells identified as underground injection wells, in the California Oil and Gas Wells database.

Date of Government Version: 06/06/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72
Source: Deaprtment of Conservation
Telephone: 916-445-2408
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

UIC GEO: Underground Injection Control Sites (GEOTRACKER)
Underground control injection sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resource Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WASTEWATER PITS: Oil Wastewater Pits Listing
Water officials discovered that oil producers have been dumping chemical-laden wastewater into hundreds of unlined pits that are operating without proper permits. Inspections completed by the Central Valley Regional Water Quality Control Board revealed the existence of previously unidentified waste sites. The water boards review found that more than one-third of the region's active disposal pits are operating without permission.

Date of Government Version: 11/19/2019
Date Data Arrived at EDR: 01/07/2020
Date Made Active in Reports: 03/09/2020
Number of Days to Update: 62
Source: RWQCB, Central Valley Region
Telephone: 559-445-5577
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

WDS: Waste Discharge System
Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007
Date Data Arrived at EDR: 06/20/2007
Date Made Active in Reports: 06/29/2007
Number of Days to Update: 9
Source: State Water Resources Control Board
Telephone: 916-341-5227
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

WIP: Well Investigation Program Case List
Well Investigation Program case in the San Gabriel and San Fernando Valley area.

Date of Government Version: 07/03/2009
Date Data Arrived at EDR: 07/21/2009
Date Made Active in Reports: 08/03/2009
Number of Days to Update: 13
Source: Los Angeles Water Quality Control Board
Telephone: 213-576-6726
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: No Update Planned

MILITARY PRIV SITES: Military Privatized Sites (GEOTRACKER)
Military privatized sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71
Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

PROJECT: Project Sites (GEOTRACKER)
Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WDR: Waste Discharge Requirements Listing

In general, the Waste Discharge Requirements (WDRs) Program (sometimes also referred to as the "Non Chapter 15 (Non 15) Program") regulates point discharges that are exempt pursuant to Subsection 20090 of Title 27 and not subject to the Federal Water Pollution Control Act. Exemptions from Title 27 may be granted for nine categories of discharges (e.g., sewage, wastewater, etc.) that meet, and continue to meet, the preconditions listed for each specific exemption. The scope of the WDRs Program also includes the discharge of wastes classified as inert, pursuant to section 20230 of Title 27.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: State Water Resources Control Board
Telephone: 916-341-5810
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

CIWQS: California Integrated Water Quality System

The California Integrated Water Quality System (CIWQS) is a computer system used by the State and Regional Water Quality Control Boards to track information about places of environmental interest, manage permits and other orders, track inspections, and manage violations and enforcement activities.

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: State Water Resources Control Board
Telephone: 866-794-4977
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Varies

CERS: CalEPA Regulated Site Portal Data

The CalEPA Regulated Site Portal database combines data about environmentally regulated sites and facilities in California into a single database. It combines data from a variety of state and federal databases, and provides an overview of regulated activities across the spectrum of environmental programs for any given location in California. These activities include hazardous materials and waste, state and federal cleanups, impacted ground and surface waters, and toxic materials

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/21/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 83

Source: California Environmental Protection Agency
Telephone: 916-323-2514
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

NON-CASE INFO: Non-Case Information Sites (GEOTRACKER)

Non-Case Information sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

OTHER OIL GAS: Other Oil & Gas Projects Sites (GEOTRACKER)

Other Oil & Gas Projects sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

PROD WATER PONDS: Produced Water Ponds Sites (GEOTRACKER)
Produced water ponds sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

SAMPLING POINT: Sampling Point ? Public Sites (GEOTRACKER)
Sampling point - public sites

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

WELL STIM PROJ: Well Stimulation Project (GEOTRACKER)
Includes areas of groundwater monitoring plans, a depiction of the monitoring network, and the facilities, boundaries, and subsurface characteristics of the oilfield and the features (oil and gas wells, produced water ponds, UIC wells, water supply wells, etc?) being monitored

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/19/2020
Number of Days to Update: 71

Source: State Water Resources Control Board
Telephone: 866-480-1028
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Varies

MINES MRDS: Mineral Resources Data System
Mineral Resources Data System

Date of Government Version: 04/06/2018
Date Data Arrived at EDR: 10/21/2019
Date Made Active in Reports: 10/24/2019
Number of Days to Update: 3

Source: USGS
Telephone: 703-648-6533
Last EDR Contact: 08/28/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

PCS ENF: Enforcement data
No description is available for this data

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/06/2015
Number of Days to Update: 29

Source: EPA
Telephone: 202-564-2497
Last EDR Contact: 07/01/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Varies

PCS INACTIVE: Listing of Inactive PCS Permits
An inactive permit is a facility that has shut down or is no longer discharging.

Date of Government Version: 11/05/2014
Date Data Arrived at EDR: 01/06/2015
Date Made Active in Reports: 05/06/2015
Number of Days to Update: 120

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Semi-Annually

PCS: Permit Compliance System
PCS is a computerized management information system that contains data on National Pollutant Discharge Elimination System (NPDES) permit holding facilities. PCS tracks the permit, compliance, and enforcement status of NPDES facilities.

Date of Government Version: 07/14/2011
Date Data Arrived at EDR: 08/05/2011
Date Made Active in Reports: 09/29/2011
Number of Days to Update: 55

Source: EPA, Office of Water
Telephone: 202-564-2496
Last EDR Contact: 09/11/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Semi-Annually

HWTS: Hazardous Waste Tracking System

DTSC maintains the Hazardous Waste Tracking System that stores ID number information since the early 1980s and manifest data since 1993. The system collects both manifest copies from the generator and destination facility.

Date of Government Version: 04/08/2020
Date Data Arrived at EDR: 04/09/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 83

Source: Department of Toxic Substances Control
Telephone: 916-324-2444
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Varies

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

EDR Hist Auto: EDR Exclusive Historical Auto Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR Hist Cleaner: EDR Exclusive Historical Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Resources Recycling and Recovery in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Resources Recycling and Recovery
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the State Water Resources Control Board in California.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/30/2013
Number of Days to Update: 182

Source: State Water Resources Control Board
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

COUNTY RECORDS

ALAMEDA COUNTY:

CS ALAMEDA: Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 01/09/2019
Date Data Arrived at EDR: 01/11/2019
Date Made Active in Reports: 03/05/2019
Number of Days to Update: 53

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

UST ALAMEDA: Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 16

Source: Alameda County Environmental Health Services
Telephone: 510-567-6700
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

AMADOR COUNTY:

CUPA AMADOR: CUPA Facility List
Cupa Facility List

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 06/01/2020
Number of Days to Update: 13

Source: Amador County Environmental Health
Telephone: 209-223-6439
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

BUTTE COUNTY:

CUPA BUTTE: CUPA Facility Listing
Cupa facility list.

Date of Government Version: 04/21/2017
Date Data Arrived at EDR: 04/25/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 106

Source: Public Health Department
Telephone: 530-538-7149
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: No Update Planned

CALVERAS COUNTY:

CUPA CALVERAS: CUPA Facility Listing
Cupa Facility Listing

Date of Government Version: 06/17/2020
Date Data Arrived at EDR: 06/18/2020
Date Made Active in Reports: 09/02/2020
Number of Days to Update: 76

Source: Calveras County Environmental Health
Telephone: 209-754-6399
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

COLUSA COUNTY:

CUPA COLUSA: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/06/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 78

Source: Health & Human Services
Telephone: 530-458-0396
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Semi-Annually

CONTRA COSTA COUNTY:

SL CONTRA COSTA: Site List
List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 04/01/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/06/2020
Number of Days to Update: 77

Source: Contra Costa Health Services Department
Telephone: 925-646-2286
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Semi-Annually

DEL NORTE COUNTY:

CUPA DEL NORTE: CUPA Facility List
Cupa Facility list

Date of Government Version: 04/16/2020
Date Data Arrived at EDR: 04/20/2020
Date Made Active in Reports: 07/08/2020
Number of Days to Update: 79

Source: Del Norte County Environmental Health Division
Telephone: 707-465-0426
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

EL DORADO COUNTY:

CUPA EL DORADO: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/07/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/23/2020
Number of Days to Update: 77

Source: El Dorado County Environmental Management Department
Telephone: 530-621-6623
Last EDR Contact: 08/13/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

FRESNO COUNTY:

CUPA FRESNO: CUPA Resources List
Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/30/2020
Date Data Arrived at EDR: 07/01/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 78

Source: Dept. of Community Health
Telephone: 559-445-3271
Last EDR Contact: 06/30/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Semi-Annually

GLENN COUNTY:

CUPA GLENN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/22/2018
Date Data Arrived at EDR: 01/24/2018
Date Made Active in Reports: 03/14/2018
Number of Days to Update: 49

Source: Glenn County Air Pollution Control District
Telephone: 830-934-6500
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: No Update Planned

HUMBOLDT COUNTY:

CUPA HUMBOLDT: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/19/2020
Date Data Arrived at EDR: 05/20/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 26

Source: Humboldt County Environmental Health
Telephone: N/A
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Semi-Annually

IMPERIAL COUNTY:

CUPA IMPERIAL: CUPA Facility List
Cupa facility list.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: San Diego Border Field Office
Telephone: 760-339-2777
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

INYO COUNTY:

CUPA INYO: CUPA Facility List
Cupa facility list.

Date of Government Version: 04/02/2018
Date Data Arrived at EDR: 04/03/2018
Date Made Active in Reports: 06/14/2018
Number of Days to Update: 72

Source: Inyo County Environmental Health Services
Telephone: 760-878-0238
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

KERN COUNTY:

CUPA KERN: CUPA Facility List
A listing of sites included in the Kern County Hazardous Material Business Plan.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 08/26/2020
Number of Days to Update: 113

Source: Kern County Public Health
Telephone: 661-321-3000
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

UST KERN: Underground Storage Tank Sites & Tank Listing
Kern County Sites and Tanks Listing.

Date of Government Version: 04/29/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Kern County Environment Health Services Department
Telephone: 661-862-8700
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

KINGS COUNTY:

CUPA KINGS: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 05/11/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Kings County Department of Public Health
Telephone: 559-584-1411
Last EDR Contact: 08/21/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

LAKE COUNTY:

CUPA LAKE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/20/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/14/2020
Number of Days to Update: 77

Source: Lake County Environmental Health
Telephone: 707-263-1164
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LASSEN COUNTY:

CUPA LASSEN: CUPA Facility List
Cupa facility list

Date of Government Version: 01/30/2020
Date Data Arrived at EDR: 01/31/2020
Date Made Active in Reports: 04/09/2020
Number of Days to Update: 69

Source: Lassen County Environmental Health
Telephone: 530-251-8528
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

LOS ANGELES COUNTY:

AOCONCERN: Key Areas of Concerns in Los Angeles County
San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office. Date of Government Version: 3/30/2009 Exide Site area is a cleanup plan of lead-impacted soil surrounding the former Exide Facility as designated by the DTSC. Date of Government Version: 7/17/2017

Date of Government Version: 03/30/2009
Date Data Arrived at EDR: 03/31/2009
Date Made Active in Reports: 10/23/2009
Number of Days to Update: 206

Source: N/A
Telephone: N/A
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: No Update Planned

HMS LOS ANGELES: HMS: Street Number List
Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 07/06/2020
Date Data Arrived at EDR: 07/10/2020
Date Made Active in Reports: 09/28/2020
Number of Days to Update: 80

Source: Department of Public Works
Telephone: 626-458-3517
Last EDR Contact: 10/01/2020
Next Scheduled EDR Contact: 01/18/2021
Data Release Frequency: Semi-Annually

LF LOS ANGELES: List of Solid Waste Facilities
Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/13/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 78

Source: La County Department of Public Works
Telephone: 818-458-5185
Last EDR Contact: 07/13/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LF LOS ANGELES CITY: City of Los Angeles Landfills
Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 01/15/2019
Date Made Active in Reports: 03/07/2019
Number of Days to Update: 51

Source: Engineering & Construction Division
Telephone: 213-473-7869
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

LOS ANGELES AST: Active & Inactive AST Inventory
A listing of active & inactive above ground petroleum storage tank site locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LOS ANGELES CO LF METHANE: Methane Producing Landfills
This data was created on April 30, 2012 to represent known disposal sites in Los Angeles County that may produce and emanate methane gas. The shapefile contains disposal sites within Los Angeles County that once accepted degradable refuse material. Information used to create this data was extracted from a landfill survey performed by County Engineers (Major Waste System Map, 1973) as well as historical records from CalRecycle, Regional Water Quality Control Board, and Los Angeles County Department of Public Health

Date of Government Version: 04/30/2012
Date Data Arrived at EDR: 04/17/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 42
Source: Los Angeles County Department of Public Works
Telephone: 626-458-6973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

LOS ANGELES HM: Active & Inactive Hazardous Materials Inventory
A listing of active & inactive hazardous materials facility locations, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LOS ANGELES UST: Active & Inactive UST Inventory
A listing of active & inactive underground storage tank site locations and underground storage tank historical sites, located in the City of Los Angeles.

Date of Government Version: 06/01/2019
Date Data Arrived at EDR: 06/25/2019
Date Made Active in Reports: 08/22/2019
Number of Days to Update: 58
Source: Los Angeles Fire Department
Telephone: 213-978-3800
Last EDR Contact: 09/25/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

SITE MIT LOS ANGELES: Site Mitigation List
Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 03/25/2020
Date Data Arrived at EDR: 04/14/2020
Date Made Active in Reports: 07/01/2020
Number of Days to Update: 78
Source: Community Health Services
Telephone: 323-890-7806
Last EDR Contact: 07/17/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

UST EL SEGUNDO: City of El Segundo Underground Storage Tank
Underground storage tank sites located in El Segundo city.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 04/19/2017
Date Made Active in Reports: 05/10/2017
Number of Days to Update: 21
Source: City of El Segundo Fire Department
Telephone: 310-524-2236
Last EDR Contact: 07/08/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: No Update Planned

UST LONG BEACH: City of Long Beach Underground Storage Tank
Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 04/22/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/27/2019
Number of Days to Update: 65

Source: City of Long Beach Fire Department
Telephone: 562-570-2563
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

UST TORRANCE: City of Torrance Underground Storage Tank
Underground storage tank sites located in the city of Torrance.

Date of Government Version: 06/27/2019
Date Data Arrived at EDR: 07/30/2019
Date Made Active in Reports: 10/02/2019
Number of Days to Update: 64

Source: City of Torrance Fire Department
Telephone: 310-618-2973
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Semi-Annually

MADERA COUNTY:

CUPA MADERA: CUPA Facility List
A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 02/25/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 72

Source: Madera County Environmental Health
Telephone: 559-675-7823
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MARIN COUNTY:

UST MARIN: Underground Storage Tank Sites
Currently permitted USTs in Marin County.

Date of Government Version: 09/26/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 11/02/2018
Number of Days to Update: 29

Source: Public Works Department Waste Management
Telephone: 415-473-6647
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Semi-Annually

MERCED COUNTY:

CUPA MERCED: CUPA Facility List
CUPA facility list.

Date of Government Version: 07/28/2020
Date Data Arrived at EDR: 07/30/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 1

Source: Merced County Environmental Health
Telephone: 209-381-1094
Last EDR Contact: 07/24/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

MONO COUNTY:

CUPA MONO: CUPA Facility List
CUPA Facility List

Date of Government Version: 05/15/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Mono County Health Department
Telephone: 760-932-5580
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: Varies

MONTEREY COUNTY:

CUPA MONTEREY: CUPA Facility Listing
CUPA Program listing from the Environmental Health Division.

Date of Government Version: 07/13/2020
Date Data Arrived at EDR: 07/15/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 16

Source: Monterey County Health Department
Telephone: 831-796-1297
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Varies

NAPA COUNTY:

LUST NAPA: Sites With Reported Contamination
A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 01/09/2017
Date Data Arrived at EDR: 01/11/2017
Date Made Active in Reports: 03/02/2017
Number of Days to Update: 50

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

UST NAPA: Closed and Operating Underground Storage Tank Sites
Underground storage tank sites located in Napa county.

Date of Government Version: 09/05/2019
Date Data Arrived at EDR: 09/09/2019
Date Made Active in Reports: 10/31/2019
Number of Days to Update: 52

Source: Napa County Department of Environmental Management
Telephone: 707-253-4269
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

NEVADA COUNTY:

CUPA NEVADA: CUPA Facility List
CUPA facility list.

Date of Government Version: 05/06/2020
Date Data Arrived at EDR: 05/07/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 78

Source: Community Development Agency
Telephone: 530-265-1467
Last EDR Contact: 07/21/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

ORANGE COUNTY:

IND_SITE ORANGE: List of Industrial Site Cleanups
Petroleum and non-petroleum spills.

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

LUST ORANGE: List of Underground Storage Tank Cleanups
Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 07/24/2020
Number of Days to Update: 77

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

UST ORANGE: List of Underground Storage Tank Facilities
Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2020
Date Data Arrived at EDR: 05/05/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 73

Source: Health Care Agency
Telephone: 714-834-3446
Last EDR Contact: 08/03/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

PLACER COUNTY:

MS PLACER: Master List of Facilities
List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 06/08/2020
Date Data Arrived at EDR: 06/10/2020
Date Made Active in Reports: 08/24/2020
Number of Days to Update: 75

Source: Placer County Health and Human Services
Telephone: 530-745-2363
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

PLUMAS COUNTY:

CUPA PLUMAS: CUPA Facility List
Plumas County CUPA Program facilities.

Date of Government Version: 03/31/2019
Date Data Arrived at EDR: 04/23/2019
Date Made Active in Reports: 06/26/2019
Number of Days to Update: 64

Source: Plumas County Environmental Health
Telephone: 530-283-6355
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

RIVERSIDE COUNTY:

LUST RIVERSIDE: Listing of Underground Tank Cleanup Sites
Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70

Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/15/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Quarterly

UST RIVERSIDE: Underground Storage Tank Tank List
Underground storage tank sites located in Riverside county.

Date of Government Version: 03/10/2020
Date Data Arrived at EDR: 03/11/2020
Date Made Active in Reports: 05/20/2020
Number of Days to Update: 70
Source: Department of Environmental Health
Telephone: 951-358-5055
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Quarterly

SACRAMENTO COUNTY:

CS SACRAMENTO: Toxic Site Clean-Up List
List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 02/18/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/15/2020
Number of Days to Update: 76
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

ML SACRAMENTO: Master Hazardous Materials Facility List
Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 02/24/2020
Date Data Arrived at EDR: 03/31/2020
Date Made Active in Reports: 06/17/2020
Number of Days to Update: 78
Source: Sacramento County Environmental Management
Telephone: 916-875-8406
Last EDR Contact: 07/02/2020
Next Scheduled EDR Contact: 10/12/2020
Data Release Frequency: Quarterly

SAN BENITO COUNTY:

CUPA SAN BENITO: CUPA Facility List
Cupa facility list

Date of Government Version: 04/24/2020
Date Data Arrived at EDR: 04/28/2020
Date Made Active in Reports: 07/13/2020
Number of Days to Update: 76
Source: San Benito County Environmental Health
Telephone: N/A
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

SAN BERNARDINO COUNTY:

PERMITS SAN BERNARDINO: Hazardous Material Permits
This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 02/25/2020
Date Data Arrived at EDR: 02/26/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 71
Source: San Bernardino County Fire Department Hazardous Materials Division
Telephone: 909-387-3041
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN DIEGO COUNTY:

HMMD SAN DIEGO: Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 06/01/2020
Date Data Arrived at EDR: 06/02/2020
Date Made Active in Reports: 08/14/2020
Number of Days to Update: 73

Source: Hazardous Materials Management Division
Telephone: 619-338-2268
Last EDR Contact: 08/31/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

LF SAN DIEGO: Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 04/18/2018
Date Data Arrived at EDR: 04/24/2018
Date Made Active in Reports: 06/19/2018
Number of Days to Update: 56

Source: Department of Health Services
Telephone: 619-338-2209
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO LOP: Local Oversight Program Listing

A listing of all LOP release sites that are or were under the County of San Diego's jurisdiction. Included are closed or transferred cases, open cases, and cases that did not have a case type indicated. The cases without a case type are mostly complaints; however, some of them could be LOP cases.

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Environmental Health
Telephone: 858-505-6874
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

SAN DIEGO CO SAM: Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

Date of Government Version: 03/23/2010
Date Data Arrived at EDR: 06/15/2010
Date Made Active in Reports: 07/09/2010
Number of Days to Update: 24

Source: San Diego County Department of Environmental Health
Telephone: 619-338-2371
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: No Update Planned

SAN FRANCISCO COUNTY:

LUST SAN FRANCISCO: Local Oversite Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

Date of Government Version: 09/19/2008
Date Data Arrived at EDR: 09/19/2008
Date Made Active in Reports: 09/29/2008
Number of Days to Update: 10

Source: Department Of Public Health San Francisco County
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: No Update Planned

UST SAN FRANCISCO: Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

Date of Government Version: 05/04/2020
Date Data Arrived at EDR: 05/06/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 72

Source: Department of Public Health
Telephone: 415-252-3920
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Quarterly

SAN JOAQUIN COUNTY:

UST SAN JOAQUIN: San Joaquin Co. UST
A listing of underground storage tank locations in San Joaquin county.

Date of Government Version: 06/22/2018
Date Data Arrived at EDR: 06/26/2018
Date Made Active in Reports: 07/11/2018
Number of Days to Update: 15

Source: Environmental Health Department
Telephone: N/A
Last EDR Contact: 09/10/2020
Next Scheduled EDR Contact: 12/28/2020
Data Release Frequency: Semi-Annually

SAN LUIS OBISPO COUNTY:

CUPA SAN LUIS OBISPO: CUPA Facility List
Cupa Facility List.

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/08/2020
Date Made Active in Reports: 08/03/2020
Number of Days to Update: 87

Source: San Luis Obispo County Public Health Department
Telephone: 805-781-5596
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SAN MATEO COUNTY:

BI SAN MATEO: Business Inventory
List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

Date of Government Version: 02/20/2020
Date Data Arrived at EDR: 02/20/2020
Date Made Active in Reports: 04/24/2020
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/11/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Annually

LUST SAN MATEO: Fuel Leak List
A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 03/29/2019
Date Data Arrived at EDR: 03/29/2019
Date Made Active in Reports: 05/29/2019
Number of Days to Update: 61

Source: San Mateo County Environmental Health Services Division
Telephone: 650-363-1921
Last EDR Contact: 09/01/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Semi-Annually

SANTA BARBARA COUNTY:

CUPA SANTA BARBARA: CUPA Facility Listing
CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011
Date Data Arrived at EDR: 09/09/2011
Date Made Active in Reports: 10/07/2011
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department
Telephone: 805-686-8167
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: No Update Planned

SANTA CLARA COUNTY:

CUPA SANTA CLARA: Cupa Facility List
Cupa facility list

Date of Government Version: 05/08/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Environmental Health
Telephone: 408-918-1973
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

HIST LUST SANTA CLARA: HIST LUST - Fuel Leak Site Activity Report
A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005
Date Data Arrived at EDR: 03/30/2005
Date Made Active in Reports: 04/21/2005
Number of Days to Update: 22

Source: Santa Clara Valley Water District
Telephone: 408-265-2600
Last EDR Contact: 03/23/2009
Next Scheduled EDR Contact: 06/22/2009
Data Release Frequency: No Update Planned

LUST SANTA CLARA: LOP Listing
A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 03/03/2014
Date Data Arrived at EDR: 03/05/2014
Date Made Active in Reports: 03/18/2014
Number of Days to Update: 13

Source: Department of Environmental Health
Telephone: 408-918-3417
Last EDR Contact: 08/19/2020
Next Scheduled EDR Contact: 12/07/2020
Data Release Frequency: No Update Planned

SAN JOSE HAZMAT: Hazardous Material Facilities
Hazardous material facilities, including underground storage tank sites.

Date of Government Version: 04/22/2020
Date Data Arrived at EDR: 04/24/2020
Date Made Active in Reports: 05/07/2020
Number of Days to Update: 13

Source: City of San Jose Fire Department
Telephone: 408-535-7694
Last EDR Contact: 07/28/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Annually

SANTA CRUZ COUNTY:

CUPA SANTA CRUZ: CUPA Facility List
CUPA facility listing.

Date of Government Version: 01/21/2017
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 05/23/2017
Number of Days to Update: 90

Source: Santa Cruz County Environmental Health
Telephone: 831-464-2761
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SHASTA COUNTY:

CUPA SHASTA: CUPA Facility List
Cupa Facility List.

Date of Government Version: 06/15/2017
Date Data Arrived at EDR: 06/19/2017
Date Made Active in Reports: 08/09/2017
Number of Days to Update: 51

Source: Shasta County Department of Resource Management
Telephone: 530-225-5789
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Varies

SOLANO COUNTY:

LUST SOLANO: Leaking Underground Storage Tanks
A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/04/2019
Date Data Arrived at EDR: 06/06/2019
Date Made Active in Reports: 08/13/2019
Number of Days to Update: 68

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

UST SOLANO: Underground Storage Tanks
Underground storage tank sites located in Solano county.

Date of Government Version: 08/25/2020
Date Data Arrived at EDR: 08/26/2020
Date Made Active in Reports: 09/16/2020
Number of Days to Update: 21

Source: Solano County Department of Environmental Management
Telephone: 707-784-6770
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Quarterly

SONOMA COUNTY:

CUPA SONOMA: Cupa Facility List
Cupa Facility list

Date of Government Version: 07/07/2020
Date Data Arrived at EDR: 07/08/2020
Date Made Active in Reports: 09/25/2020
Number of Days to Update: 79

Source: County of Sonoma Fire & Emergency Services Department
Telephone: 707-565-1174
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Varies

LUST SONOMA: Leaking Underground Storage Tank Sites
A listing of leaking underground storage tank sites located in Sonoma county.

Date of Government Version: 07/01/2020
Date Data Arrived at EDR: 07/02/2020
Date Made Active in Reports: 09/17/2020
Number of Days to Update: 77

Source: Department of Health Services
Telephone: 707-565-6565
Last EDR Contact: 09/16/2020
Next Scheduled EDR Contact: 01/04/2021
Data Release Frequency: Quarterly

STANISLAUS COUNTY:

CUPA STANISLAUS: CUPA Facility List
Cupa facility list

Date of Government Version: 02/04/2020
Date Data Arrived at EDR: 02/05/2020
Date Made Active in Reports: 04/15/2020
Number of Days to Update: 70

Source: Stanislaus County Department of Ennvironmental Protection
Telephone: 209-525-6751
Last EDR Contact: 07/06/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Varies

SUTTER COUNTY:

UST SUTTER: Underground Storage Tanks
Underground storage tank sites located in Sutter county.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 05/28/2020
Date Made Active in Reports: 08/13/2020
Number of Days to Update: 77

Source: Sutter County Environmental Health Services
Telephone: 530-822-7500
Last EDR Contact: 08/25/2020
Next Scheduled EDR Contact: 12/14/2020
Data Release Frequency: Semi-Annually

TEHAMA COUNTY:

CUPA TEHAMA: CUPA Facility List
Cupa facilities

Date of Government Version: 05/18/2020
Date Data Arrived at EDR: 05/19/2020
Date Made Active in Reports: 07/31/2020
Number of Days to Update: 73

Source: Tehama County Department of Environmental Health
Telephone: 530-527-8020
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TRINITY COUNTY:

CUPA TRINITY: CUPA Facility List
Cupa facility list

Date of Government Version: 07/14/2020
Date Data Arrived at EDR: 07/16/2020
Date Made Active in Reports: 09/29/2020
Number of Days to Update: 75

Source: Department of Toxic Substances Control
Telephone: 760-352-0381
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

TULARE COUNTY:

CUPA TULARE: CUPA Facility List
Cupa program facilities

Date of Government Version: 05/14/2020
Date Data Arrived at EDR: 05/15/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 73

Source: Tulare County Environmental Health Services Division
Telephone: 559-624-7400
Last EDR Contact: 08/06/2020
Next Scheduled EDR Contact: 11/16/2020
Data Release Frequency: Varies

TUOLUMNE COUNTY:

CUPA TUOLUMNE: CUPA Facility List
Cupa facility list

Date of Government Version: 04/23/2018
Date Data Arrived at EDR: 04/25/2018
Date Made Active in Reports: 06/25/2018
Number of Days to Update: 61

Source: Divison of Environmental Health
Telephone: 209-533-5633
Last EDR Contact: 07/14/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Varies

VENTURA COUNTY:

BWT VENTURA: Business Plan, Hazardous Waste Producers, and Operating Underground Tanks
The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77

Source: Ventura County Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

LF VENTURA: Inventory of Illegal Abandoned and Inactive Sites
Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

Date of Government Version: 12/01/2011
Date Data Arrived at EDR: 12/01/2011
Date Made Active in Reports: 01/19/2012
Number of Days to Update: 49

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: No Update Planned

LUST VENTURA: Listing of Underground Tank Cleanup Sites
Ventura County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 05/29/2008
Date Data Arrived at EDR: 06/24/2008
Date Made Active in Reports: 07/31/2008
Number of Days to Update: 37

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

MED WASTE VENTURA: Medical Waste Program List
To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

Date of Government Version: 03/26/2020
Date Data Arrived at EDR: 04/23/2020
Date Made Active in Reports: 07/09/2020
Number of Days to Update: 77

Source: Ventura County Resource Management Agency
Telephone: 805-654-2813
Last EDR Contact: 07/20/2020
Next Scheduled EDR Contact: 11/02/2020
Data Release Frequency: Quarterly

UST VENTURA: Underground Tank Closed Sites List
Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

Date of Government Version: 05/26/2020
Date Data Arrived at EDR: 06/09/2020
Date Made Active in Reports: 08/20/2020
Number of Days to Update: 72

Source: Environmental Health Division
Telephone: 805-654-2813
Last EDR Contact: 09/08/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Quarterly

YOLO COUNTY:

UST YOLO: Underground Storage Tank Comprehensive Facility Report
Underground storage tank sites located in Yolo county.

Date of Government Version: 06/23/2020
Date Data Arrived at EDR: 06/29/2020
Date Made Active in Reports: 09/15/2020
Number of Days to Update: 78

Source: Yolo County Department of Health
Telephone: 530-666-8646
Last EDR Contact: 09/23/2020
Next Scheduled EDR Contact: 01/11/2021
Data Release Frequency: Annually

YUBA COUNTY:

CUPA YUBA: CUPA Facility List
CUPA facility listing for Yuba County.

Date of Government Version: 04/27/2020
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/17/2020
Number of Days to Update: 79

Source: Yuba County Environmental Health Department
Telephone: 530-749-7523
Last EDR Contact: 08/04/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Varies

OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 05/12/2020
Date Data Arrived at EDR: 05/12/2020
Date Made Active in Reports: 07/27/2020
Number of Days to Update: 76

Source: Department of Energy & Environmental Protection
Telephone: 860-424-3375
Last EDR Contact: 08/10/2020
Next Scheduled EDR Contact: 11/23/2020
Data Release Frequency: No Update Planned

NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 04/10/2019
Date Made Active in Reports: 05/16/2019
Number of Days to Update: 36

Source: Department of Environmental Protection
Telephone: N/A
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/19/2020
Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 01/01/2019
Date Data Arrived at EDR: 04/29/2020
Date Made Active in Reports: 07/10/2020
Number of Days to Update: 72

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 07/31/2020
Next Scheduled EDR Contact: 11/09/2020
Data Release Frequency: Quarterly

PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/19/2019
Date Made Active in Reports: 09/10/2019
Number of Days to Update: 53

Source: Department of Environmental Protection
Telephone: 717-783-8990
Last EDR Contact: 07/09/2020
Next Scheduled EDR Contact: 10/26/2020
Data Release Frequency: Annually

RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2018
Date Data Arrived at EDR: 10/02/2019
Date Made Active in Reports: 12/10/2019
Number of Days to Update: 69

Source: Department of Environmental Management
Telephone: 401-222-2797
Last EDR Contact: 08/11/2020
Next Scheduled EDR Contact: 11/30/2020
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/19/2019
Date Made Active in Reports: 09/03/2019
Number of Days to Update: 76

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/02/2020
Next Scheduled EDR Contact: 12/21/2020
Data Release Frequency: Annually

Oil/Gas Pipelines
Source: Endeavor Business Media
Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by Endeavor Business Media. This information is provided on a best effort basis and Endeavor Business Media does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of Endeavor Business Media.

Electric Power Transmission Line Data
Source: Endeavor Business Media
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Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

AHA Hospitals:
Source: American Hospital Association, Inc.
Telephone: 312-280-5991
The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing
Source: Centers for Medicare & Medicaid Services
Telephone: 410-786-3000
A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

Nursing Homes
Source: National Institutes of Health
Telephone: 301-594-6248
Information on Medicare and Medicaid certified nursing homes in the United States.

Public Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools
Source: National Center for Education Statistics
Telephone: 202-502-7300
The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Licensed Facilities
Source: Department of Social Services
Telephone: 916-657-4041

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

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GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

11625 W. HIGHWAY 60
11625 W. HIGHWAY 60
BLYTHE, CA 92225

TARGET PROPERTY COORDINATES

Latitude (North):	33.608456 - 33° 36' 30.44''
Longitude (West):	114.616435 - 114° 36' 59.17''
Universal Tranverse Mercator:	Zone 11
UTM X (Meters):	721151.7
UTM Y (Meters):	3721097.8
Elevation:	267 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	5620020 BLYTHE, CA
Version Date:	2012
Northeast Map:	5619982 BLYTHE NE, CA
Version Date:	2012
Southwest Map:	5620024 RIPLEY, CA
Version Date:	2012
Northwest Map:	5619998 MCCOY WASH, CA
Version Date:	2012

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principle investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

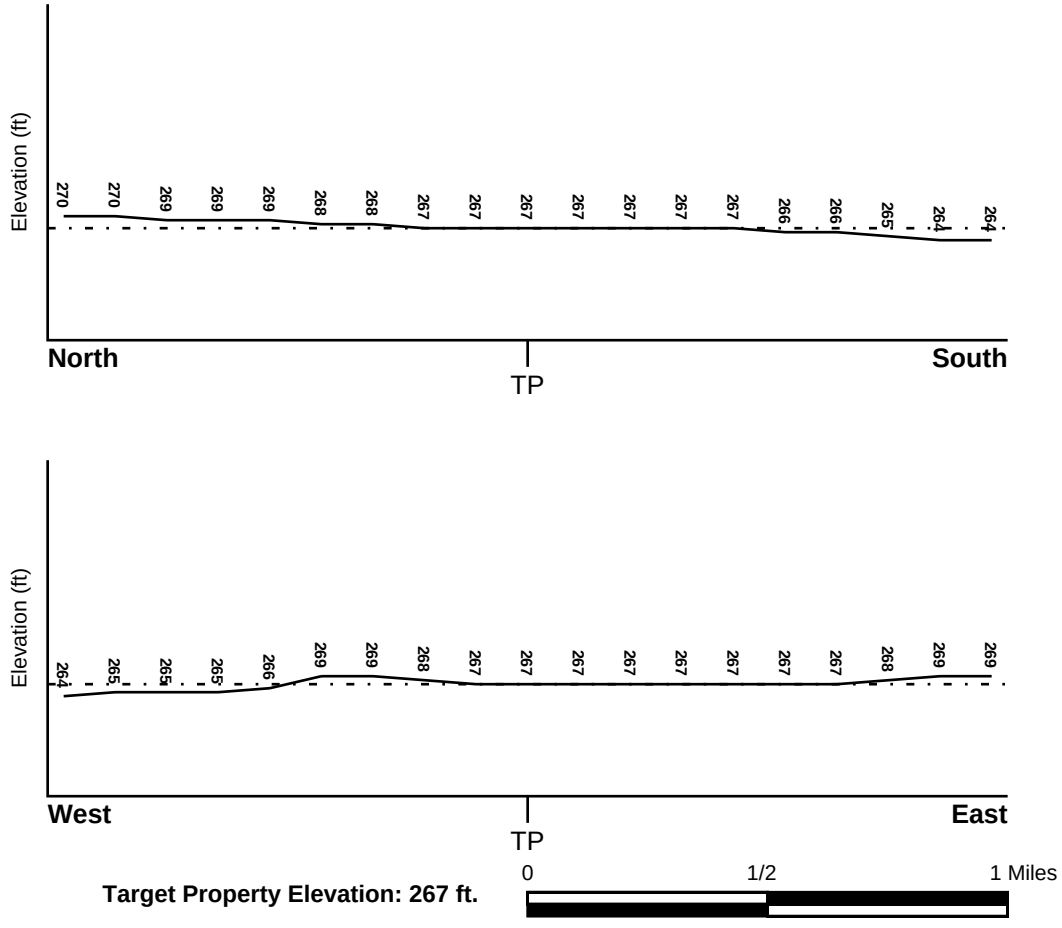
TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General SE

SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

FEMA FLOOD ZONE

Flood Plain Panel at Target Property	FEMA Source Type
0602453275A	FEMA Q3 Flood data

Additional Panels in search area:	FEMA Source Type
0602453250A	FEMA Q3 Flood data
0602480000A	FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
NOT AVAILABLE	YES - refer to the Overview Map and Detail Map

HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Site-Specific Hydrogeological Data*:

Search Radius:	1.25 miles
Status:	Not found

AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

* ©1996 Site−specific hydrogeological data gathered by CERCLIS Alerts, Inc., Bainbridge Island, WA. All rights reserved. All of the information and opinions presented are those of the cited EPA report(s), which were completed under a Comprehensive Environmental Response Compensation and Liability Information System (CERCLIS) investigation.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

ROCK STRATIGRAPHIC UNIT

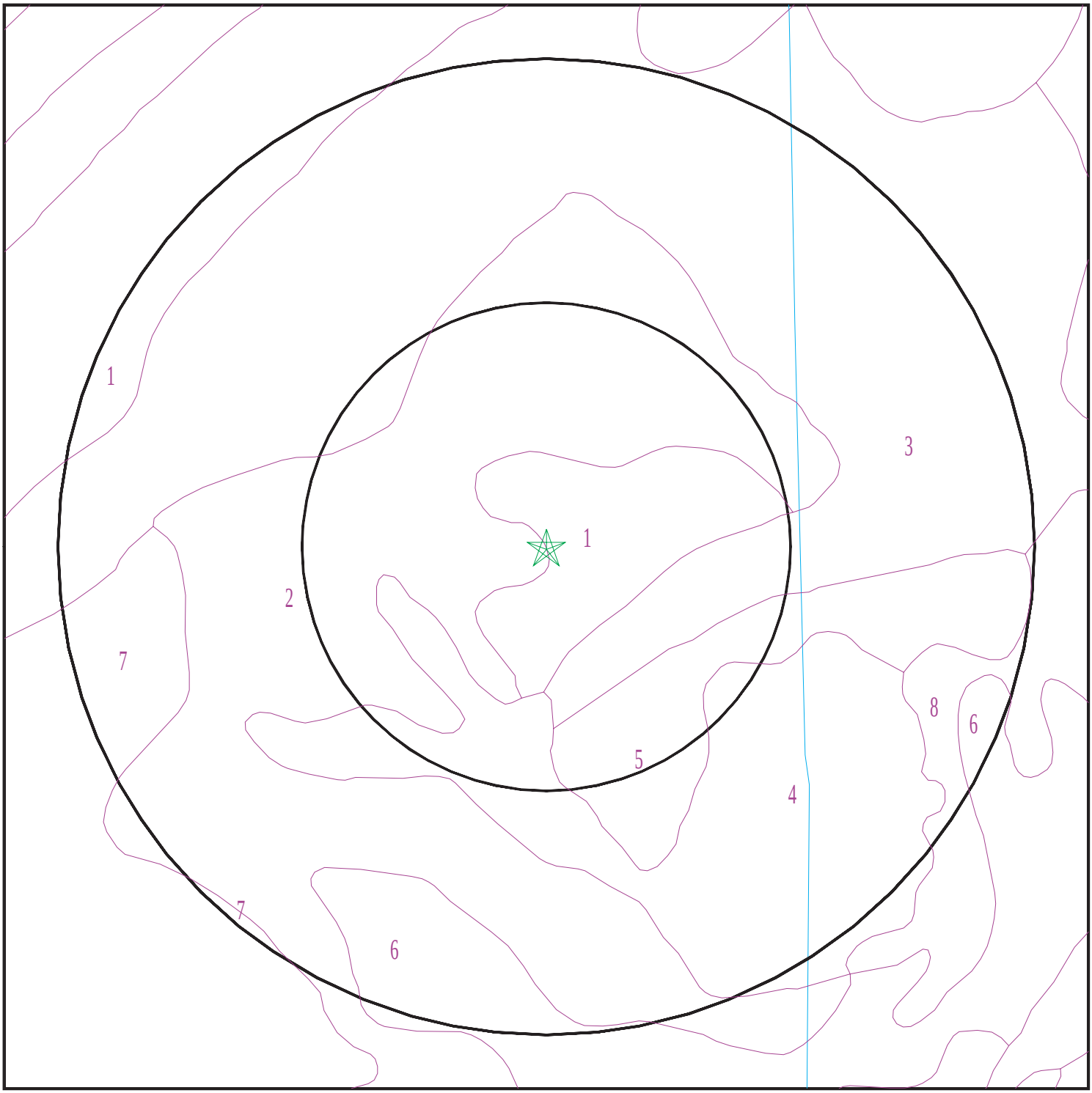
Era:	Cenozoic
System:	Quaternary
Series:	Quaternary
Code:	Q *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Stratifed Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

SSURGO SOIL MAP - 6213158.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	11625 W. Highway 60	CLIENT:	MSA Consulting, Inc.
ADDRESS:	11625 W. Highway 60 Blythe CA 92225	CONTACT:	Asia Lee
LAT/LONG:	33.608456 / 114.616435	INQUIRY #:	6213158.2s
		DATE:	October 02, 2020 9:53 am

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GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Cibola

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	29 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
3	29 inches	59 inches	fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 2

Soil Component Name: Holtville

Soil Surface Texture: silty clay

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	16 inches	25 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
3	25 inches	59 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 3

Soil Component Name: Meloland

Soil Surface Texture: fine sandy loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Well drained

Hydric Status: Partially hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	24 inches	fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	24 inches	48 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
3	48 inches	59 inches	fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 4

Soil Component Name: Gilman

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	12 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	12 inches	20 inches	loamy very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
3	20 inches	27 inches	very fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
4	27 inches	33 inches	loamy fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
5	33 inches	59 inches	fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Clean Sands, Well-graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 5

Soil Component Name: Ripley

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 423 Min: 14	Max: 8.4 Min: 7.9
2	11 inches	20 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 423 Min: 14	Max: 8.4 Min: 7.9
3	20 inches	31 inches	very fine sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 423 Min: 14	Max: 8.4 Min: 7.9
4	31 inches	59 inches	fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 423 Min: 14	Max: 8.4 Min: 7.9

Soil Map ID: 6

Soil Component Name: Rositas

Soil Surface Texture: silty clay loam

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9
2	9 inches	72 inches	fine sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

Soil Map ID: 7

Soil Component Name: Imperial

Soil Surface Texture: silty clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 9 Min: 7.9
2	9 inches	59 inches	silty clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 9 Min: 7.9

Soil Map ID: 8

Soil Component Name: Rositas

Soil Surface Texture: loamy fine sand

Hydrologic Group: Class A - High infiltration rates. Soils are deep, well drained to excessively drained sands and gravels.

Soil Drainage Class: Somewhat excessively drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	3 inches	loamy fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	3 inches	59 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 8.4 Min: 7.9

LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

WELL SEARCH DISTANCE INFORMATION

DATABASE	SEARCH DISTANCE (miles)
Federal USGS	1.000
Federal FRDS PWS	Nearest PWS within 1 mile
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40000127840	1/8 - 1/4 Mile SE
A2	USGS40000127859	1/8 - 1/4 Mile WNW
A3	USGS40000127858	1/8 - 1/4 Mile WNW
B4	USGS40000135992	1/4 - 1/2 Mile ENE
B5	USGS40000135991	1/4 - 1/2 Mile ENE
6	USGS40000127818	1/4 - 1/2 Mile SSW
C7	USGS40000128003	1/4 - 1/2 Mile NNE
C8	USGS40000128002	1/4 - 1/2 Mile NNE
D9	USGS40000127799	1/4 - 1/2 Mile SSE
E10	USGS40000127830	1/4 - 1/2 Mile SW
F11	USGS40000127800	1/4 - 1/2 Mile SSW
G12	USGS40000127817	1/4 - 1/2 Mile SW
F13	USGS40000127816	1/4 - 1/2 Mile SW
D14	USGS40000127796	1/4 - 1/2 Mile SSE
D15	USGS40000127798	1/4 - 1/2 Mile SSE
D16	USGS40000127797	1/4 - 1/2 Mile SSE

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
E17	USGS40000127823	1/4 - 1/2 Mile SW
18	USGS40000127867	1/4 - 1/2 Mile East
19	USGS40000127795	1/4 - 1/2 Mile SSE
20	USGS40000136183	1/4 - 1/2 Mile WNW
G21	USGS40000127805	1/2 - 1 Mile SW
E22	USGS40000127819	1/2 - 1 Mile SW
E23	USGS40000127820	1/2 - 1 Mile SW
H24	USGS40000127806	1/2 - 1 Mile SW
H25	USGS40000127807	1/2 - 1 Mile SW
H26	USGS40000135847	1/2 - 1 Mile SW
I27	USGS40000127779	1/2 - 1 Mile SE
I28	USGS40000127778	1/2 - 1 Mile SE
J29	USGS40000127824	1/2 - 1 Mile WSW
30	USGS40000136062	1/2 - 1 Mile North
K31	USGS40000128013	1/2 - 1 Mile North
K32	USGS40000128014	1/2 - 1 Mile North
K35	USGS40000128021	1/2 - 1 Mile North
K36	USGS40000128019	1/2 - 1 Mile North
K37	USGS40000128020	1/2 - 1 Mile North
L38	USGS40000128012	1/2 - 1 Mile NNE
M39	USGS40000127879	1/2 - 1 Mile WNW
M41	USGS40000127894	1/2 - 1 Mile WNW
O42	USGS40000127928	1/2 - 1 Mile WNW
P43	USGS40000136078	1/2 - 1 Mile NNW
N44	USGS40000135846	1/2 - 1 Mile ESE
Q45	USGS40000127987	1/2 - 1 Mile WNW
Q46	USGS40000127988	1/2 - 1 Mile WNW
O47	USGS40000127945	1/2 - 1 Mile WNW
O48	USGS40000127947	1/2 - 1 Mile WNW
O49	USGS40000127946	1/2 - 1 Mile WNW
M50	USGS40000127881	1/2 - 1 Mile West
M51	USGS40000127880	1/2 - 1 Mile West
R52	USGS40000127787	1/2 - 1 Mile SW
O53	USGS40000127899	1/2 - 1 Mile WNW
R54	USGS40000127780	1/2 - 1 Mile SW
O55	USGS40000127918	1/2 - 1 Mile WNW
O56	USGS40000127924	1/2 - 1 Mile WNW
57	USGS40000135915	1/2 - 1 Mile East
O59	USGS40000127948	1/2 - 1 Mile WNW
60	USGS40000127841	1/2 - 1 Mile WSW
S61	USGS40000127882	1/2 - 1 Mile West
S62	USGS40000127900	1/2 - 1 Mile WNW
Q63	USGS40000127989	1/2 - 1 Mile WNW
T64	USGS40000127929	1/2 - 1 Mile WNW
S65	USGS40000127902	1/2 - 1 Mile WNW
S66	USGS40000127901	1/2 - 1 Mile WNW
67	USGS40000127966	1/2 - 1 Mile ENE
S68	USGS40000127903	1/2 - 1 Mile WNW
V70	USGS40000127835	1/2 - 1 Mile WSW
V71	USGS40000127834	1/2 - 1 Mile WSW
T72	USGS40000127990	1/2 - 1 Mile WNW
S73	USGS40000127885	1/2 - 1 Mile WNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
T74	USGS40000127949	1/2 - 1 Mile WNW
75	USGS40000127871	1/2 - 1 Mile East
T76	USGS40000127930	1/2 - 1 Mile WNW
S77	USGS40000127895	1/2 - 1 Mile WNW
U78	USGS40000136067	1/2 - 1 Mile NE
S79	USGS40000127883	1/2 - 1 Mile West
80	USGS40000135966	1/2 - 1 Mile West
W81	USGS40000127781	1/2 - 1 Mile WSW
X82	USGS40000127991	1/2 - 1 Mile WNW
W83	USGS40000127782	1/2 - 1 Mile WSW
T84	USGS40000127950	1/2 - 1 Mile WNW
Y85	USGS40000127896	1/2 - 1 Mile WNW
Y86	USGS40000127884	1/2 - 1 Mile West
87	USGS40000128018	1/2 - 1 Mile NE
X88	USGS40000127972	1/2 - 1 Mile WNW
89	USGS40000127821	1/2 - 1 Mile WSW
X90	USGS40000127993	1/2 - 1 Mile WNW
Y91	USGS40000127904	1/2 - 1 Mile WNW
X92	USGS40000127973	1/2 - 1 Mile WNW
Y93	USGS40000127905	1/2 - 1 Mile WNW
Y94	USGS40000127906	1/2 - 1 Mile WNW
Y95	USGS40000127907	1/2 - 1 Mile WNW
Z96	USGS40000127952	1/2 - 1 Mile WNW
Z97	USGS40000127953	1/2 - 1 Mile WNW
Z98	USGS40000127951	1/2 - 1 Mile WNW
AA99	USGS40000127873	1/2 - 1 Mile East
X100	USGS40000127994	1/2 - 1 Mile WNW
Y101	USGS40000127908	1/2 - 1 Mile WNW
Y103	USGS40000127909	1/2 - 1 Mile WNW
104	USGS40000135900	1/2 - 1 Mile ESE
Z106	USGS40000127995	1/2 - 1 Mile WNW
108	USGS40000127965	1/2 - 1 Mile ENE
Z109	USGS40000127996	1/2 - 1 Mile WNW
Z110	USGS40000127925	1/2 - 1 Mile WNW
Z111	USGS40000127997	1/2 - 1 Mile WNW
AC112	USGS40000136119	1/2 - 1 Mile NNE
Z113	USGS40000127954	1/2 - 1 Mile WNW
AD115	USGS40000127897	1/2 - 1 Mile West
AD116	USGS40000127910	1/2 - 1 Mile WNW
Z117	USGS40000127976	1/2 - 1 Mile WNW
Z118	USGS40000127975	1/2 - 1 Mile WNW
Z119	USGS40000127956	1/2 - 1 Mile WNW
Z120	USGS40000127958	1/2 - 1 Mile WNW
Z121	USGS40000127974	1/2 - 1 Mile WNW
Z122	USGS40000127955	1/2 - 1 Mile WNW
Z123	USGS40000127931	1/2 - 1 Mile WNW
AD124	USGS40000127886	1/2 - 1 Mile West
AD125	USGS40000127888	1/2 - 1 Mile West
AD126	USGS40000127887	1/2 - 1 Mile West
Z127	USGS40000127957	1/2 - 1 Mile WNW

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

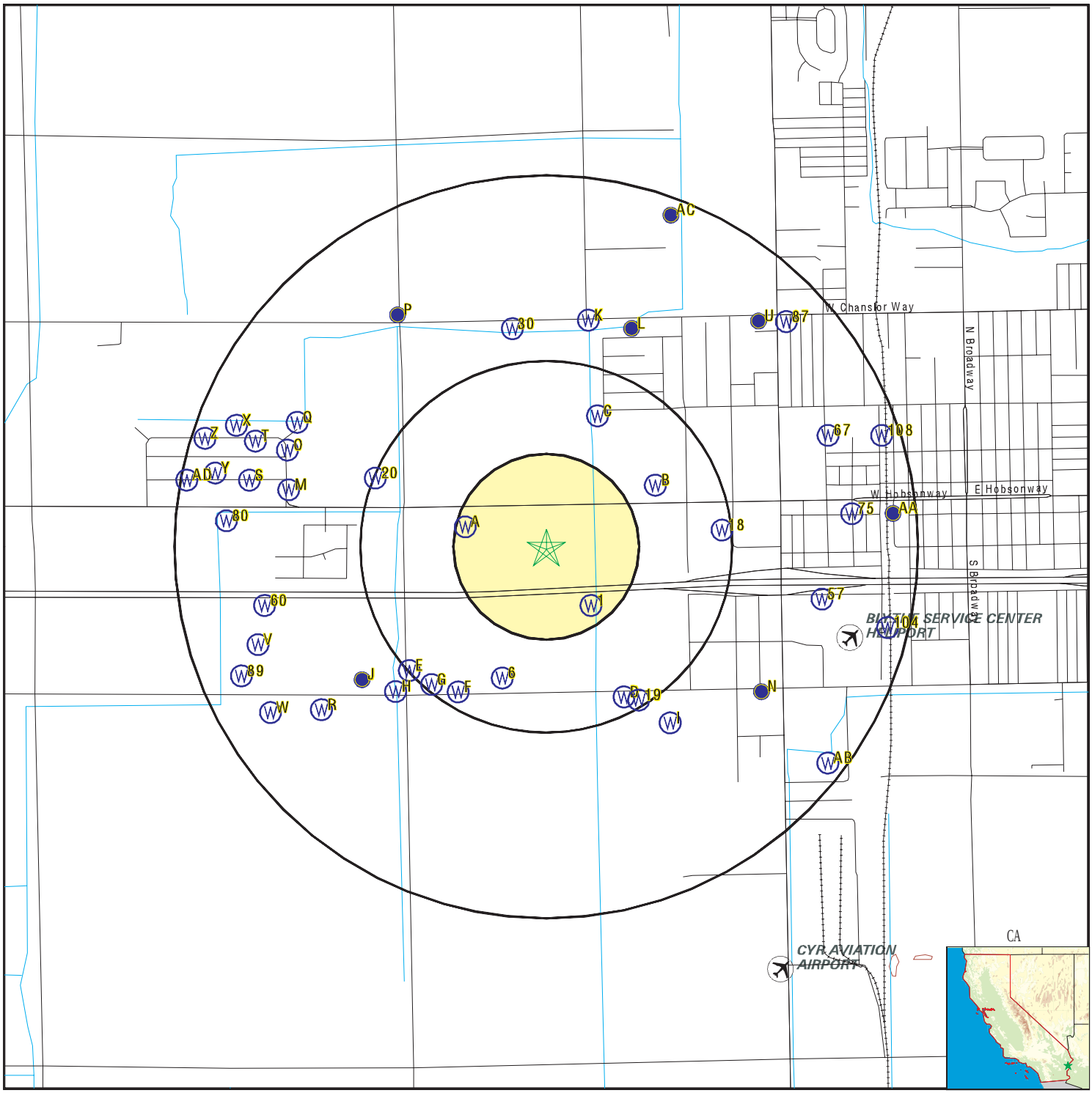
MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
L33	CADWR8000004514	1/2 - 1 Mile NNE
J34	CADWR8000004399	1/2 - 1 Mile SW
N40	CADWR8000004398	1/2 - 1 Mile SE
P58	CADWR8000004519	1/2 - 1 Mile NW
U69	CADWR8000004517	1/2 - 1 Mile NE
AB102	7157	1/2 - 1 Mile SE
AC105	CADWR8000004550	1/2 - 1 Mile NNE
AA107	CADWR8000004459	1/2 - 1 Mile East
AB114	CADWR8000004367	1/2 - 1 Mile SE

PHYSICAL SETTING SOURCE MAP - 6213158.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location
- HD Closest Hydrogeological Data
- Oil, gas or related wells

SITE NAME:	11625 W. Highway 60	CLIENT:	MSA Consulting, Inc.
ADDRESS:	11625 W. Highway 60 Blythe CA 92225	CONTACT:	Asia Lee
		INQUIRY #:	6213158.2s
LAT/LONG:	33.608456 / 114.616435	DATE:	October 02, 2020 9:53 am

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GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

1
SE
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000127840**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31P001S	Type:	Well
Description:	11621 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

A2
WNW
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000127859**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31M002S	Type:	Well
Description:	1900 WEST HOBSONWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

A3
WNW
1/8 - 1/4 Mile
Higher

FED USGS **USGS40000127858**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31M001S	Type:	Well
Description:	1900 WEST HOBSONWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

B4
ENE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000135992**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E31G002S	Type:	Well
Description:	Not Reported	HUC:	15030104

Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19480101	Well Depth:	135
Well Depth Units:	ft	Well Hole Depth:	150
Well Hole Depth Units:	ft		

B5
ENE **FED USGS** **USGS40000135991**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E31G001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19480101	Well Depth:	143
Well Depth Units:	ft	Well Hole Depth:	153
Well Hole Depth Units:	ft		

6
SSW **FED USGS** **USGS40000127818**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N002S	Type:	Well
Description:	11798 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

C7
NNE **FED USGS** **USGS40000128003**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31G004S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

C8
NNE **FED USGS** **USGS40000128002**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31G003S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

D9
SSE **FED USGS** **USGS40000127799**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B004S	Type:	Well
Description:	11947 WEST 14TH AVENEUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

E10
SW **FED USGS** **USGS40000127830**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N007S	Type:	Well
Description:	13830 DEFRAIN BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

F11
SSW **FED USGS** **USGS40000127800**
1/4 - 1/2 Mile
Lower

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N001S	Type:	Well
Description:	11850 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

G12
SW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000127817**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N006S	Type:	Well
Description:	11950 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	2004-05-19
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

F13
SW
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000127816**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N005S	Type:	Well
Description:	11940 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

D14
SSE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000127796**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B001S	Type:	Well
Description:	11443 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	200405
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

D15
SSE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000127798**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B003S	Type:	Well
Description:	11443 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

D16
SSE
1/4 - 1/2 Mile
Lower

FED USGS **USGS40000127797**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B002S	Type:	Well
Description:	11443 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

E17
SW
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000127823**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N003S	Type:	Well
Description:	13900 DEFRAIN BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

18
East
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000127867**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31J001S	Type:	Well
Description:	1020 HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	19570706
Well Depth:	390	Well Depth Units:	ft
Well Hole Depth:	390	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	2	Level reading date:	1972-07-20
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

Level reading date:	1962-02-06	Feet below surface:	4.5
Feet to sea level:	Not Reported	Note:	Not Reported

19
SSE **FED USGS** **USGS40000127795**
1/4 - 1/2 Mile
Lower

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B007S	Type:	Well
Description:	11431 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

20
WNW **FED USGS** **USGS40000136183**
1/4 - 1/2 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S022E36H001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Unconfined single aquifer
Construction Date:	1916	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-10-14
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The well was destroyed (no water level is recorded).		

G21
SW **FED USGS** **USGS40000127805**
1/2 - 1 Mile
Higher

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31N004S	Type:	Well

Description:	11990 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	2004-05-19
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

E22
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127819**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36R002S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	198410
Well Depth:	102	Well Depth Units:	ft
Well Hole Depth:	102	Well Hole Depth Units:	ft

E23
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127820**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36R003S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	198410
Well Depth:	32	Well Depth Units:	ft
Well Hole Depth:	32	Well Hole Depth Units:	ft

H24
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127806**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36R004S	Type:	Well
Description:	12000 W 14TH AVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

H25
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127807**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36R006S	Type:	Well: Collector or Ranney type well
Description:	12000 W 14TH AVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

H26
SW
1/2 - 1 Mile
Higher

FED USGS **USGS40000135847**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S022E36R001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Unconfined single aquifer
Construction Date:	19470422	Well Depth:	9
Well Depth Units:	ft	Well Hole Depth:	9
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-07-20
Feet below surface:	5.66	Feet to sea level:	Not Reported
Note:	Not Reported		

I27
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000127779**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B006S	Type:	Well
Description:	11301 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

I28
SE
1/2 - 1 Mile
Lower

FED USGS **USGS40000127778**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S023E06B005S	Type:	Well
Description:	11301 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	200	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

J29
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127824**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36R005S	Type:	Well
Description:	12190 W 14TH AVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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30
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000136062**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E31C001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19480101	Well Depth:	123
Well Depth Units:	ft	Well Hole Depth:	123
Well Hole Depth Units:	ft		

K31
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000128013**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31F001S	Type:	Well

Description:	11520 RIVERSIDE DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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K32
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000128014**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31F002S	Type:	Well
Description:	11520 RIVERSIDE DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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L33
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000004514**

State Well #:	06S23E31B001S	Station ID:	7362
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

---

J34
SW
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000004399**

State Well #:	06S22E36R001S	Station ID:	6652
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

---

K35
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000128021**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E30Q003S	Type:	Well
Description:	11330 RIVERSIDE DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium

Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

K36
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000128019**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E30Q001S	Type:	Well
Description:	11330 RIVERSIDE DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

K37
North
1/2 - 1 Mile
Higher

FED USGS **USGS40000128020**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E30Q002S	Type:	Well
Description:	11330 RIVERSIDE DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

L38
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000128012**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E31B001S	Type:	Well
Description:	1324 W CHANSLORWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19720822
Well Depth:	554	Well Depth Units:	ft
Well Hole Depth:	554	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	3	Level reading date:	1999-11-18
Feet below surface:	11.85	Feet to sea level:	Not Reported
Note:	The site had been pumped recently.		

Level reading date:	1999-09-02	Feet below surface:	12.2
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1972-10-11	Feet below surface:	6
Feet to sea level:	Not Reported	Note:	Not Reported

M39
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127879**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G037S	Type:	Well
Description:	12260 WEST HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

N40
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000004398**

State Well #:	07S23E06A001S	Station ID:	9571
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

---

M41
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127894**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G007S	Type:	Well
Description:	12190 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

O42
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127928**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G013S	Type:	Well
Description:	12234 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported

Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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P43
NNW **FED USGS** **USGS40000136078**
1/2 - 1 Mile
Higher

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E30N001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	7
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-07-01
Feet below surface:	7.00	Feet to sea level:	Not Reported
Note:	Not Reported		

N44
ESE **FED USGS** **USGS40000135846**
1/2 - 1 Mile
Lower

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	007S023E06A001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	11
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-07-01
Feet below surface:	8.00	Feet to sea level:	Not Reported
Note:	Not Reported		

Q45
WNW **FED USGS** **USGS40000127987**
1/2 - 1 Mile
Lower

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G011S	Type:	Well
Description:	12280 THOMAS ROAD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium

Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Q46
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127988**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E26G012S	Type:	Well
Description:	12280 THOMAS ROAD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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O47
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127945**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G001S	Type:	Well
Description:	12266 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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O48
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127947**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G039S	Type:	Well
Description:	12266 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O49
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127946**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G038S	Type:	Well
Description:	12266 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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M50
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127881**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G034S	Type:	Well
Description:	12330 WEST HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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M51
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127880**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G030S	Type:	Well
Description:	12330 WEST HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

R52
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127787**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S022E01A001S	Type:	Well
Description:	12201 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

O53
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127899**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G003S	Type:	Well
Description:	12320 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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R54
SW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127780**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S022E01A002S	Type:	Well
Description:	12201 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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O55
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127918**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G006S	Type:	Well
Description:	12191 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

O56
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127924**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G019S	Type:	Well
Description:	12181 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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57
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000135915**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E32N001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19560101	Well Depth:	335
Well Depth Units:	ft	Well Hole Depth:	350
Well Hole Depth Units:	ft		

P58
NW
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000004519**

State Well #:	06S23E30N001S	Station ID:	7360
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

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O59
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127948**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G018S	Type:	Well
Description:	12241 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported

Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels,Number of Measurements:	2	Level reading date:	2004-03-23
Feet below surface:	10.69	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2004-03-23	Feet below surface:	10.69
Feet to sea level:	Not Reported	Note:	Not Reported

60
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127841**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36Q003S	Type:	Well
Description:	136 NORTH ASH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S61
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127882**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G031S	Type:	Well
Description:	12340 WEST HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S62
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127900**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G028S	Type:	Well
Description:	12348 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Q63
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127989**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G027S	Type:	Well
Description:	12274 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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T64
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127929**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G016S	Type:	Well
Description:	12311 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S65
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127902**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G025S	Type:	Well
Description:	12410 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S66
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127901**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G036S	Type:	Well
Description:	12410 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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67
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000127966**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E32E001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Not Reported	Construction Date:	19650800
Well Depth:	660	Well Depth Units:	ft
Well Hole Depth:	725	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	1	Level reading date:	1966-02-01
Feet below surface:	7	Feet to sea level:	Not Reported
Note:	Not Reported		

S68
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127903**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G026S	Type:	Well
Description:	12410 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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U69
NE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000004517**

State Well #:	06S23E31A001S	Station ID:	7361
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

V70
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127835**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36Q002S	Type:	Well
Description:	136 NORTH ASH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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V71
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127834**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36Q001S	Type:	Well
Description:	136 NORTH ASH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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T72
WNW
1/2 - 1 Mile
Higher

FED USGS **USGS40000127990**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G010S	Type:	Well
Description:	12320 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S73
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127885**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G032S	Type:	Well
Description:	12400 WEST HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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T74
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127949**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G017S	Type:	Well
Description:	12361 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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75
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000127871**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E32M001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Not Reported	Construction Date:	194808
Well Depth:	300	Well Depth Units:	ft
Well Hole Depth:	300	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	3	Level reading date:	1971-08-02
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The well was destroyed (no water level is recorded).		

Level reading date:	1971-08-02	Feet below surface:	Not Reported
Feet to sea level:	Not Reported		
Note:	The well was destroyed (no water level is recorded).		

Level reading date:	1961-02-07	Feet below surface:	7.3
Feet to sea level:	Not Reported	Note:	Not Reported

T76
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127930**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G014S	Type:	Well
Description:	12397 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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S77
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127895**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G023S	Type:	Well
Description:	12425 MICKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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U78
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000136067**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E31A001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	8
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-07-01
Feet below surface:	8.00	Feet to sea level:	Not Reported
Note:	Not Reported		

S79
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127883**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G040S	Type:	Well
Description:	12444 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

80
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000135966**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S022E36K001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Unconfined single aquifer
Construction Date:	1919	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

Ground water levels,Number of Measurements:	1	Level reading date:	1971-10-14
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The well was destroyed (no water level is recorded).		

W81
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127781**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S022E01B002S	Type:	Well
Description:	12491 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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X82
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127991**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G033S	Type:	Well
Description:	12370 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

W83
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127782**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	007S022E01B001S	Type:	Well
Description:	12491 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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T84
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127950**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G015S	Type:	Well
Description:	12421 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Y85
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127896**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G002S	Type:	Well
Description:	12548 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Y86
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127884**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G029S	Type:	Well
Description:	12470 HOBSON WAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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87
NE
1/2 - 1 Mile
Higher

FED USGS **USGS40000128018**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E32D001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Not Reported	Construction Date:	19530615
Well Depth:	316	Well Depth Units:	ft
Well Hole Depth:	316	Well Hole Depth Units:	ft

Ground water levels,Number of Measurements:	3	Level reading date:	1961-02-07
Feet below surface:	9	Feet to sea level:	Not Reported
Note:	Not Reported		

Level reading date:	1953-07-30	Feet below surface:	5
Feet to sea level:	Not Reported	Note:	Not Reported

Level reading date:	1953-07-30	Feet below surface:	5
Feet to sea level:	Not Reported	Note:	Not Reported

X88
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127972**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G009S	Type:	Well
Description:	12372 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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89
WSW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127821**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36Q004S	Type:	Well
Description:	12400 WEST 14TH AVENUE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported

Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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X90
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127993**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G008S	Type:	Well
Description:	12386 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Y91
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127904**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G024S	Type:	Well
Description:	12468 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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X92
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127973**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G005S	Type:	Well
Description:	12448 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Y93
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127905**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F037S	Type:	Well
Description:	12398 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Y94
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127906**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F047S	Type:	Well
Description:	12398 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Y95
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127907**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F048S	Type:	Well
Description:	12398 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Z96
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127952**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G021S	Type:	Well
Description:	12495 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Z97
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127953**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G022S	Type:	Well
Description:	12497 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Z98
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127951**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G020S	Type:	Well
Description:	12495 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AA99
East
1/2 - 1 Mile
Higher

FED USGS **USGS40000127873**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E32L005S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1950
Well Depth:	194	Well Depth Units:	ft
Well Hole Depth:	194	Well Hole Depth Units:	ft

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

X100
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127994**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36G004S	Type:	Well
Description:	12486 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Y101
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127908**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F036S	Type:	Well
Description:	12488 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

AB102
SE
1/2 - 1 Mile
Lower

CA WELLS **7157**

Seq:	7157	Prim sta c:	06S/23E-31K01 S
Frds no:	3310003007	County:	33
District:	14	User id:	WAT
System no:	3310003	Water type:	G
Source nam:	WELL 12	Station ty:	WELL/AMBNT/MUN/INTAKE
Latitude:	333600.0	Longitude:	1143610.0
Precision:	4	Status:	AR
Comment 1:	Not Reported	Comment 2:	Not Reported
Comment 3:	Not Reported	Comment 4:	Not Reported
Comment 5:	Not Reported	Comment 6:	Not Reported
Comment 7:	Not Reported		

System no:	3310003	System nam:	Blythe, City Of
Hqname:	Not Reported	Address:	440 S. Main Street
City:	Blythe	State:	CA
Zip:	92225	Zip ext:	Not Reported
Pop serv:	8500	Connection:	2533
Area serve:	BLYTHE		

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Y103
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127909**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F026S	Type:	Well
Description:	12550 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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104
ESE
1/2 - 1 Mile
Higher

FED USGS **USGS40000135900**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E32P002S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	Not Reported	Well Depth:	Not Reported
Well Depth Units:	Not Reported	Well Hole Depth:	Not Reported
Well Hole Depth Units:	Not Reported		

AC105
NNE
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000004550**

State Well #:	06S23E30K001S	Station ID:	7359
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

---

Z106
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127995**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F038S	Type:	Well
Description:	12528 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported

Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported
Ground water levels,Number of Measurements:	1	Level reading date:	2004-04-13
Feet below surface:	Not Reported	Feet to sea level:	Not Reported
Note:	The site was being pumped.		

AA107
East
1/2 - 1 Mile
Higher

CA WELLS **CADWR8000004459**

State Well #:	06S23E32L003S	Station ID:	7365
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

---

108
ENE
1/2 - 1 Mile
Higher

FED USGS **USGS40000127965**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S023E32F002S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	1937
Well Depth:	252	Well Depth Units:	ft
Well Hole Depth:	263	Well Hole Depth Units:	ft
Ground water levels,Number of Measurements:	2	Level reading date:	1971-08-03
Feet below surface:	21.15	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1937	Feet below surface:	12
Feet to sea level:	Not Reported	Note:	Not Reported

Z109
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127996**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F039S	Type:	Well
Description:	12528 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Z110
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127925**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F027S	Type:	Well
Description:	12545 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z111
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127997**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F040S	Type:	Well
Description:	12528 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AC112
NNE
1/2 - 1 Mile
Higher

FED USGS **USGS40000136119**

Organization ID:	USGS-CA		
Organization Name:	USGS California Water Science Center		
Monitor Location:	006S023E30K001S	Type:	Well
Description:	Not Reported	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Basin and Range basin-fill aquifers		
Formation Type:	Not Reported	Aquifer Type:	Not Reported
Construction Date:	19771004	Well Depth:	690
Well Depth Units:	ft	Well Hole Depth:	712
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	12	Level reading date:	1985-06-12
Feet below surface:	10.75	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	1985-02-27	Feet below surface:	10.78
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1984-09-18	Feet below surface:	9.92

Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1983-09-20	Feet below surface:	9.77
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-12-09	Feet below surface:	9.81
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1982-02-03	Feet below surface:	10.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-09-23	Feet below surface:	9.37
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1981-01-23	Feet below surface:	10.62
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1980-07-23	Feet below surface:	9.53
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-07-26	Feet below surface:	9.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1979-06-27	Feet below surface:	9.45
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1977-10-04	Feet below surface:	10
Feet to sea level:	Not Reported	Note:	Not Reported

Z113
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127954**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F065S	Type:	Well
Description:	12535 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AB114
SE
1/2 - 1 Mile
Lower

CA WELLS **CADWR8000004367**

State Well #:	07S23E05D001S	Station ID:	9570
Well Name:	Not Reported	Well Use:	Unknown
Well Type:	Unknown	Well Depth:	0
Basin Name:	Palo Verde Mesa	Well Completion Rpt #:	Not Reported

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

AD115
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127897**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F019S	Type:	Well
Description:	12590 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AD116
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127910**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F028S	Type:	Well
Description:	12570 MCKINLEY DRIVE	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Z117
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127976**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F030S	Type:	Well
Description:	12540 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z118
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127975**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F029S	Type:	Well
Description:	12540 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z119
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127956**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F032S	Type:	Well
Description:	12583 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z120
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127958**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F034S	Type:	Well
Description:	12583 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z121
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127974**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F004S	Type:	Well
Description:	12556 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

Z122
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127955**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F015S	Type:	Well
Description:	12555 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

---

Z123
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127931**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F035S	Type:	Well
Description:	12583 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AD124
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127886**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F001S	Type:	Well
Description:	12630 WEST HOBSONWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AD125
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127888**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F003S	Type:	Well
Description:	12630 WEST HOBSONWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported

Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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AD126
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000127887**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F002S	Type:	Well
Description:	12630 WEST HOBSONWAY	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

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Z127
WNW
1/2 - 1 Mile
Lower

FED USGS **USGS40000127957**

Organization ID:	USGS-AZ	Organization Name:	USGS Arizona Water Science Center
Monitor Location:	006S022E36F033S	Type:	Well
Description:	12583 FLORENCE BLVD	HUC:	15030104
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Holocene Alluvium
Aquifer Type:	Unconfined single aquifer	Construction Date:	Not Reported
Well Depth:	Not Reported	Well Depth Units:	Not Reported
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: CA Radon

Radon Test Results

Zipcode	Num Tests	> 4 pCi/L
92225	1	0

Federal EPA Radon Zone for RIVERSIDE County: 2

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for RIVERSIDE COUNTY, CA

Number of sites tested: 12

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.117 pCi/L	100%	0%	0%
Living Area - 2nd Floor	0.450 pCi/L	100%	0%	0%
Basement	1.700 pCi/L	100%	0%	0%

PHYSICAL SETTING SOURCE RECORDS SEARCHED

TOPOGRAPHIC INFORMATION

USGS 7.5' Digital Elevation Model (DEM)
Source: United States Geologic Survey
EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetland Inventory
Source: Department of Fish and Wildlife
Telephone: 916-445-0411

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} Information System
Source: EDR proprietary database of groundwater flow information
EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

GEOLOGIC INFORMATION

Geologic Age and Rock Stratigraphic Unit
Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database
Source: Department of Agriculture, Natural Resources Conservation Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

LOCAL / REGIONAL WATER AGENCY RECORDS

FEDERAL WATER WELLS

PWS: Public Water Systems
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data
Source: EPA/Office of Drinking Water
Telephone: 202-564-3750
Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)
This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

STATE RECORDS

Water Well Database
Source: Department of Water Resources
Telephone: 916-651-9648

California Drinking Water Quality Database
Source: Department of Public Health
Telephone: 916-324-2319
The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

OTHER STATE DATABASE INFORMATION

California Oil and Gas Well Locations
Source: Dept of Conservation, Geologic Energy Management Division
Telephone: 916-323-1779
Oil and Gas well locations in the state.

California Earthquake Fault Lines
Source: California Division of Mines and Geology
The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

RADON

State Database: CA Radon
Source: Department of Public Health
Telephone: 916-210-8558
Radon Database for California

Area Radon Information
Source: USGS
Telephone: 703-356-4020
The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

PHYSICAL SETTING SOURCE RECORDS SEARCHED

EPA Radon Zones
Source: EPA
Telephone: 703-356-4020
Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

OTHER

Airport Landing Facilities: Private and public use landing facilities
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

STREET AND ADDRESS INFORMATION

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Appendix H

EDR Sanborn Map Report

11625 W. Highway 60

11625 W. Highway 60

Blythe, CA 92225

Inquiry Number: 6213158.3

October 02, 2020

Certified Sanborn® Map Report

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

10/02/20

Site Name:

11625 W. Highway 60
11625 W. Highway 60
Blythe, CA 92225
EDR Inquiry # 6213158.3

Client Name:

MSA Consulting, Inc.
34200 Bob Hope Drive
Rancho Mirage, CA 92270
Contact: Asia Lee

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by MSA Consulting, Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Certification # 7C23-452E-85F9

PO # NA

Project 2626.001

UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

Sanborn® Library search results

Certification #: 7C23-452E-85F9

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- ☑ Library of Congress
- ☑ University Publications of America
- ☑ EDR Private Collection

The Sanborn Library LLC Since 1866™

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Appendix I

Owner's Statement and
User Questionnaire

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MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

OWNER'S STATEMENT

Privileged and Confidential Record of Communication

Subject Property: 11625 W. Highway 60, Blythe, CA (APN 836-100-007)

☐ Past Owner/Occupant ☒ Present Owner/Occupant

Owner's Name: Red River Land Company LLC

Company Name: Red River Land Company LLC

Date: 10/15/20 Number of Years Property Owned (If Applicable): 5 years

***Question*:**	***Yes/No***	***Explanation if Yes:***
1. Are you aware of any past uses or conditions on the property that differ from the present uses or conditions?	☐ Yes ☒ No	
2. Are you aware of any uses or conditions, past or present, within or adjacent to the property that pertain to hazardous materials? This includes knowledge of past release, existing release or material threat of release of hazardous substances or petroleum products.	☐ Yes ☒ No	

Signature: Robert P. Mullion

Printed Name: Robert P. Mullion

DocuSign Envelope ID: F289CB86-9388-4E94-B2E8-2ACCE390C396

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING

"ALL APPROPRIATE INQUIRES" USER QUESTIONNAIRE

Property Description/Address: 11625 W. Highway 60, Blythe, CA (APN 836-100-007)

This questionnaire must be completed by the person or entity for whose benefit the investigation is being conducted (the "User" of the report) and given to the environmental consultant. No Investigation is required to complete this questionnaire; it should be completed with whatever information the User has at this time.

***Question*:**	***Yes/No***	***Explanation if Yes:***
1. **Environmental cleanup liens:** Are you aware of any environmental cleanup lines on the property that are filed or recorded under federal, tribal, state or local law?	☐ Yes ☒ No	
2. **Activity and land use limitations (AULs)**. Are you aware of any AULs, such as engineering controls (e.g., vapor controls, asphalt caps, etc.), that are in place at the site and/or have been files or recorded in a registry under federal, tribal, state or local law?	☐ Yes ☒ No	
3. **Specialized knowledge or experience**. Do you have any specialized knowledge or experience related to the property or nearby properties that might indicate the presence of actual or potential contamination of the property? For example, are you involved in the same line of business as the current former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?	☐ Yes ☒ No	
4. **Relationship of the purchase price to fair market value.** (a) Does the purchase price being paid for this property reasonably reflect the fair market value of the property? *Note: An appraisal is not required. Also, while the User must make this determination, the User is not required to disclose it.*	☒ Yes ☐ No ☐ Price has not been determined ☐ We have made or will make a determination, but do not wish to disclose it.	

DocuSign Envelope ID: F289CB86-9388-4E94-B2E8-2ACCE390C396

(b) If you conclude that there is a difference between the purchase price and fair market value, could the lower purchase price be attributable to contamination that is known or believed to be present at the property? *Note: Whether or not disclosed to the consultant, if the purchase price is less than fair market value, the User should document the explanation for the difference, in writing and retain the explanation.*	☐ Yes ☐ No ☐ We have made or will make this determination, but do not wish to disclose it.	
5. **Commonly known or reasonably ascertainable information.** Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional identify conditions indicative of releases or threatened releases? Examples: Do you know of any past uses of the property that could have resulted in contamination? Do you know of any spills or other chemical releases that have taken place at the property? Do you know of any environmental cleanups that have taken place at the property?	☐ Yes ☒ No	
6. **Obvious presence of likely presence of contamination.** Based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence or likely presence of contamination at the property?	☐ Yes ☒ No	

Questionnaire completed by:

Signature: _____

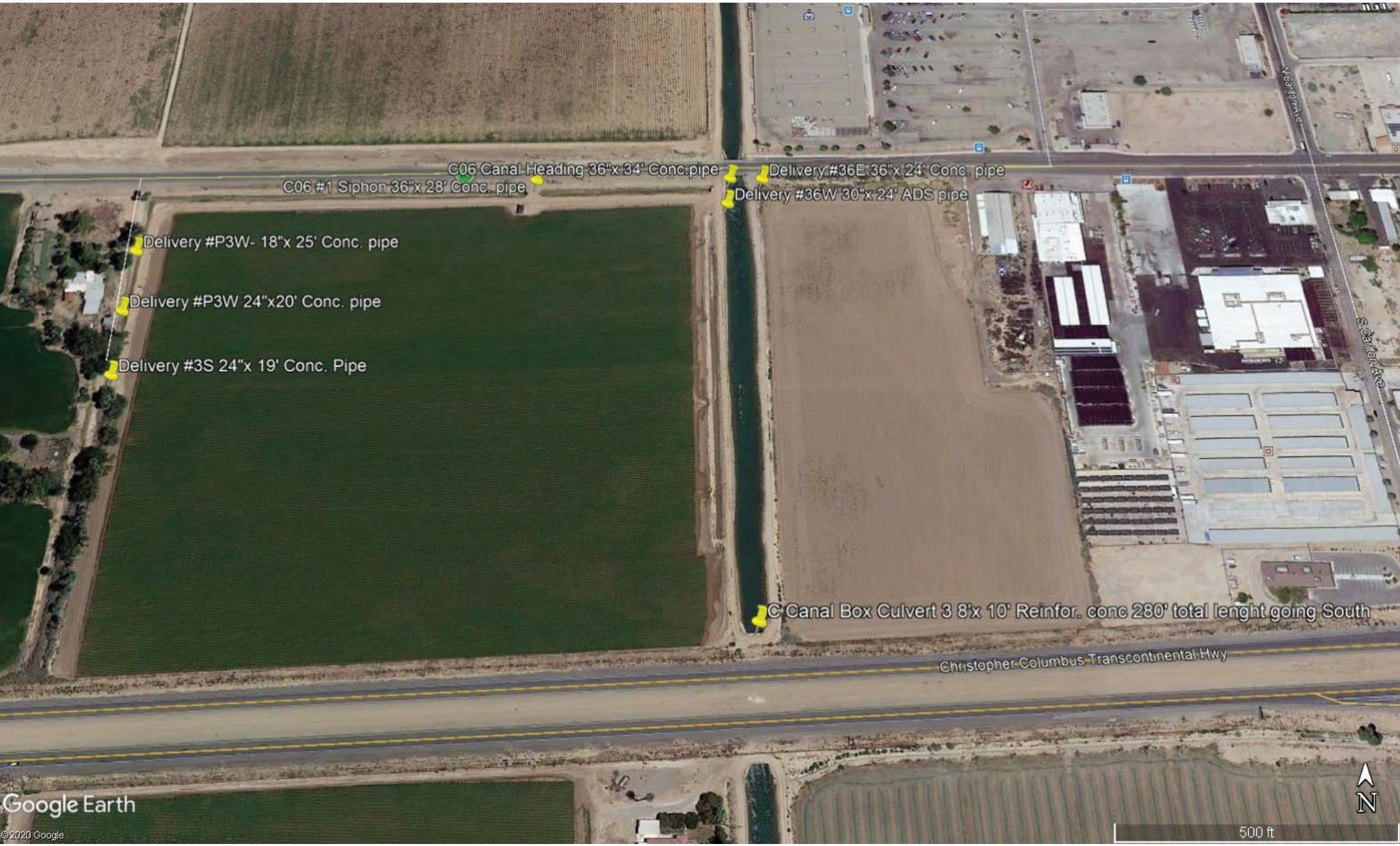
Name: Thomas Iller

Title: Director

Date: 16.10.2020

Appendix J

Additional Records


C06 Canal Heading 36"x 34' Conc.pipe
C06 #1 Siphon 36"x 28' Conc. pipe
Delivery #36E 36"x 24' Conc. pipe
Delivery #36W 30"x 24' ADS pipe
Delivery #P3W- 18"x 25' Conc. pipe
Delivery #P3W 24"x20' Conc. pipe
Delivery #3S 24"x 19' Conc. Pipe
C Canal Box Culvert 3 8'x 10' Reinfor. conc 280' total lenght going South
Christopher Columbus Transcontinental Hwy
S Carter Ave
Google Earth
©2020 Google
N
500 ft

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix K

Preliminary Hydrology Report

May 2022

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PRELIMINARY HYDROLOGY REPORT

For Property Located In
A Portion of the Northeast ¼ of the Southwest ¼ of Section 31,
Township 6 South, Range 23 East, S.B.M.
Blythe, California

EDELWEISS SUSTAINABLE FARMS

March 24, 2022

Prepared for:

Edelweiss Sustainable Farms, L.L.C.

6086 Yucca Mesa Road
Yucca Valley, California 92284



JN: 2626

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING
34200 Bob Hope Drive, Rancho Mirage, CA 92270
760.320.9811 **msaconsultinginc.com**

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G. RIVERSIDE COUNTY WHITEWATER RIVER REGION WQMP WORKSHEETS
H. HYDROLOGY EXHIBITS

PROJECT DESCRIPTION & LOCATION

The project site comprises approximately 32 acres and is located along the south side of Hobsonway between DeFrain Blvd. and Lovekin Blvd., in the City of Blythe. It is situated in a portion of the northeast ¼ of the southwest ¼ of Sections 31, Township 6 South, Range 23 East, SBM. A vicinity map obtained from the Riverside TLMA website is included as Appendix A.

EXISTING SITE CONDITIONS

Flood Rate Map

The proposed area is covered by FIRM Panel Number 06065C3230G, effective date of August 28, 2008, which indicates the subject property lies within Zone D, defined *as "Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.*" Refer to the attached NFIP Flood Insurance Rate Map in Appendix B.

Existing Topography

The property is presently vacant and vegetated with seasonal crops from time to time due to agricultural/farming activities. The site is bounded on the west by an existing local canal and farm residence, to the north by Hobsonway and another Local Canal, to the south by the I-10 Freeway and a Regional Irrigation Canal along the east property line. Site drainage appears to be through a ponding condition, from the years of lazar leveling farming activities utilizing flood irrigation techniques, with surface infiltration.

PROPOSED FLOOD CONTROL REQUIREMENTS

The purpose of this report is to provide preliminary basin analyses for the subject property. The drainage requirements for this project fall under the jurisdiction of the City of Blythe. Storm flows are conveyed through the site via street flow to the retention basin system.

HYDROLOGY ANALYSIS DESIGN CRITERIA

Storm runoff volumes for the 100-year event were obtained utilizing the Synthetic Unit Hydrograph as described in the *RCFC&WCD Hydrology Manual*. The hydrologic data used for the calculations are as follows:

Hydrologic Soil Group

The existing soil is categorized as hydrologic soil group "C" (82%) and "D" (18%) for the subject property as shown per the attached National Cooperative Soil Survey exhibits in Appendix C.

Soil Group 'C' is defined by RCFCD as – "soils having slow infiltration rates when thoroughly wetted and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine texture. These soils have a slow rate of water transmission".

Soil Group 'D' is defined by RCFCD as – "High runoff potential. Soils having very slow infiltration rates when thoroughly wetted and consisting chiefly of clay soils with a high swelling potential, soils with a permanent high water table, soils with a claypan or clay layer at or near the surface, and shallow soils over nearly impervious material. These soils have a very slow rate of water transmission".

Antecedent Moisture Condition

AMC II – Moderate runoff potential, an intermediate condition. Per RCFC & WCD Hydrology Manual (Dated: April 1978): "For the purposes of design hydrology using District methods, AMC II should normally be assumed for both the 10-year and 100-year frequency storm".

Land Use Classifications and Runoff Index Numbers

Runoff Index Numbers were obtained from RCFCD Plates E6.1, E6.2 and E6.3 are summarized below:

	Soil Group "C"	Soils Group "D"
Commercial Development	69	75
Existing Open Brush – Fair	77	83

Percent of Impervious Cover (RCFCD Plate E-6.3):

Existing Open Brush – Fair Condition	5%
Commercial Areas	90%
Open Space (Landscaping & Retention Basins)	10%

Low Loss Rates: 85%

Precipitation Frequency Estimates

Precipitation depths were obtained from NOAA Atlas 14:

2 Year - 1 Hour Precipitation:	0.492	inches
100 Year – 1 Hour Precipitation:	1.58	inches
100 Year – 3 Hour Precipitation:	2.18	inches
100 Year - 6 Hour Precipitation	2.56	inches
100 Year – 24 Hour Precipitation	3.90	inches

Slope of Intensity Duration Curve: 0.54

See Appendix D for the NOAA Atlas 14 Point Precipitation Frequency Estimates and respective RCFCD Plates.

Site Infiltration

Percolation/Infiltration tests were performed on the subject property, indicating percolation rates of 8.75 to 9.00 (in/hour), and infiltration rates of 0.88 to 0.91 (in/hour). For the purposes of this report a basin infiltration rate of 0.9 (in/hour) was used in the calculations. See excerpts Sladden Engineering. Percolation/Infiltration Testing for Infiltration Test Rates in Appendix E.

SUMMARY of SYNTHETIC UNIT (SHORTCUT METHOD) ANALYSES

The proposed retention basins for the associated drainage areas were sized to retain the 100-year controlling storm event flood volumes and were analyzed utilizing the RCFCD Synthetic Unit (Shortcut Method). Per the manual, for areas of less than 100 – 200 acres, and lag times less than 7 – 8 minutes, the shortcut method is applicable. This method assumes that in a small watershed, response time to effective rainfall is very short. Therefore, runoff rates for a given period of time can be assumed to be directly proportional to effective rain. This method yields only approximate results (on the conservative side) and should be used only for watersheds meeting the criteria noted above.

It should be noted that the peak flow for the 1-hour storm is not necessarily representative for peak flow. Per RCFCD, peak discharges from the 3-hour storm should normally compare well with rational peaks.

The synthetic unit worksheets are included in Appendix F and are summarized on the hydrology exhibit in Appendix H.

PRELIMINARY WQMP ANALYSES

Preliminary design volume and flow for BMP measures were based on Worksheets 1 and 2 from the Riverside County – Whitewater River Region Water Quality Management Plan. Impervious area for the drainage sub-areas are derived from the RCFCD S.U.H. Worksheets. A summary of the BMP results is presented on the Hydrology Exhibit in Appendix H with the worksheets being included as Appendix G.

RESULTS AND CONCLUSIONS

As the above narrative and appendices confirm, the proposed retention basins are sufficiently sized to contain the incremental increase flood volume from the controlling 100-year storm. The on-site retention basins (2 basins, each basin is approximately 80 feet wide by 410 feet long, and 3 feet deep) will store the 100-yr-24 hour storm (210,348 c.f.) and provide volume for the WQMP Design Storage (First Flush) of 33,792 c.f., within the bottom 1 foot of the 3 foot deep basin(s). During the final design process, a more detailed hydrologic report will be submitted to the City for review and approval.

Appendix A

Riverside County TLMA Vicinity Map

Vicinity Map



Legend

- Blueline Streams
- City Areas

0 1,505 3,009 Feet

IMPORTANT Maps and data are to be used for reference purposes only. Map features are approximate, and are not necessarily accurate to surveying or engineering standards. The County of Riverside makes no warranty or guarantee as to the content (the source is often third party), accuracy, timeliness, or completeness of any of the data provided, and assumes no legal responsibility for the information contained on this map. Any use of this product with respect to accuracy and precision shall be the sole responsibility of the user.

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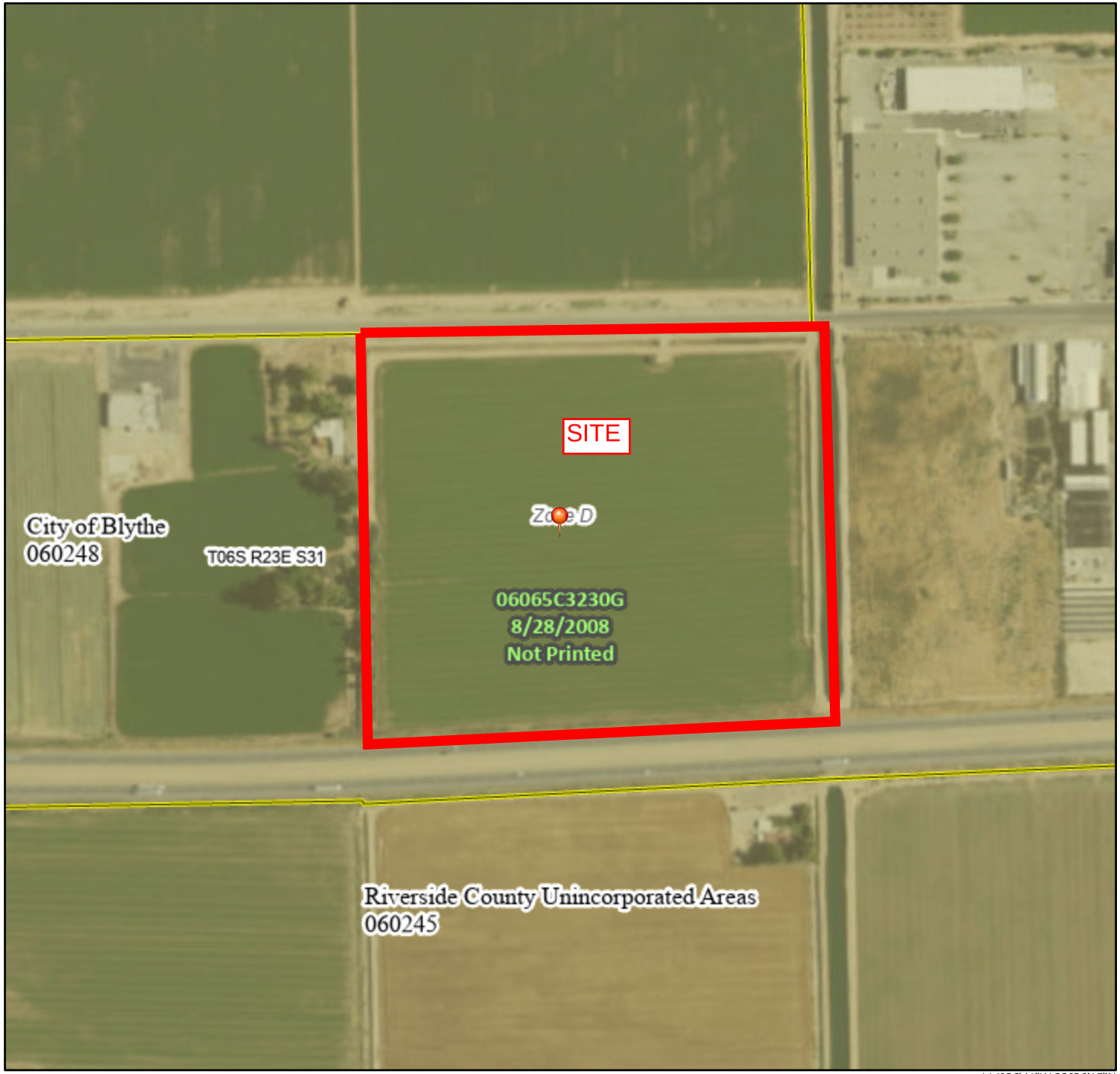
Notes

Appendix B
NFIP Flood Insurance Rate Map

National Flood Hazard Layer FIRMette

FEMA

114°37'19"W 33°36'45"N



114°36'41"W 33°36'15"N

0 250 500 1,000 1,500 2,000 Feet

1:6,000

Basemap: USGS National Map: Orthoimagery: Data refreshed October, 2020

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- 513 Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 3/17/2022 at 6:32 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

DEFINITIONS OF FEMA FLOOD ZONE DESIGNATIONS

Moderate to Low Risk Areas

In communities that participate in the NFIP, flood insurance is available to all property owners and renters in these zones:

ZONE	DESCRIPTION
X (Shaded)	Areas of 0.2% annual chance flood; areas of 1% annual chance flood with average depths of less than 1 foot or with drainage areas less than 1 square mile; and areas protected by levees from 1% annual chance flood. Insurance purchase is not required in these zones.
X	Areas determined to be outside the 0.2% annual chance floodplain.

High Risk Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

ZONE	DESCRIPTION
A	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. Because detailed analyses are not performed for such areas; no depths or base flood elevations are shown within these zones.
AE	Areas with a 1% annual chance of flooding and a 26% chance of flooding over the life of a 30-year mortgage. In most instances, base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AH	Areas with a 1% annual chance of shallow flooding, usually in the form of a pond, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.
AO	River or stream flood hazard areas, and areas with a 1% or greater chance of shallow flooding each year, usually in the form of sheet flow, with an average depth ranging from 1 to 3 feet. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Average flood depths derived from detailed analyses are shown within these zones. For areas of alluvial fan flooding, velocities are also determined.
AR	Areas with a temporarily increased flood risk due to the building or restoration of a flood control system (such as a levee or a dam). Mandatory flood insurance purchase requirements will apply, but rates will not exceed the rates for unnumbered A zones if the structure is built or restored in compliance with Zone AR floodplain management regulations.
A99	Areas with a 1% annual chance of flooding that will be protected by a Federal flood control system where construction has reached specified legal requirements. No depths or base flood elevations are shown within these zones.

High Risk – Coastal Areas

In communities that participate in the NFIP, mandatory flood insurance purchase requirements apply to all of these zones:

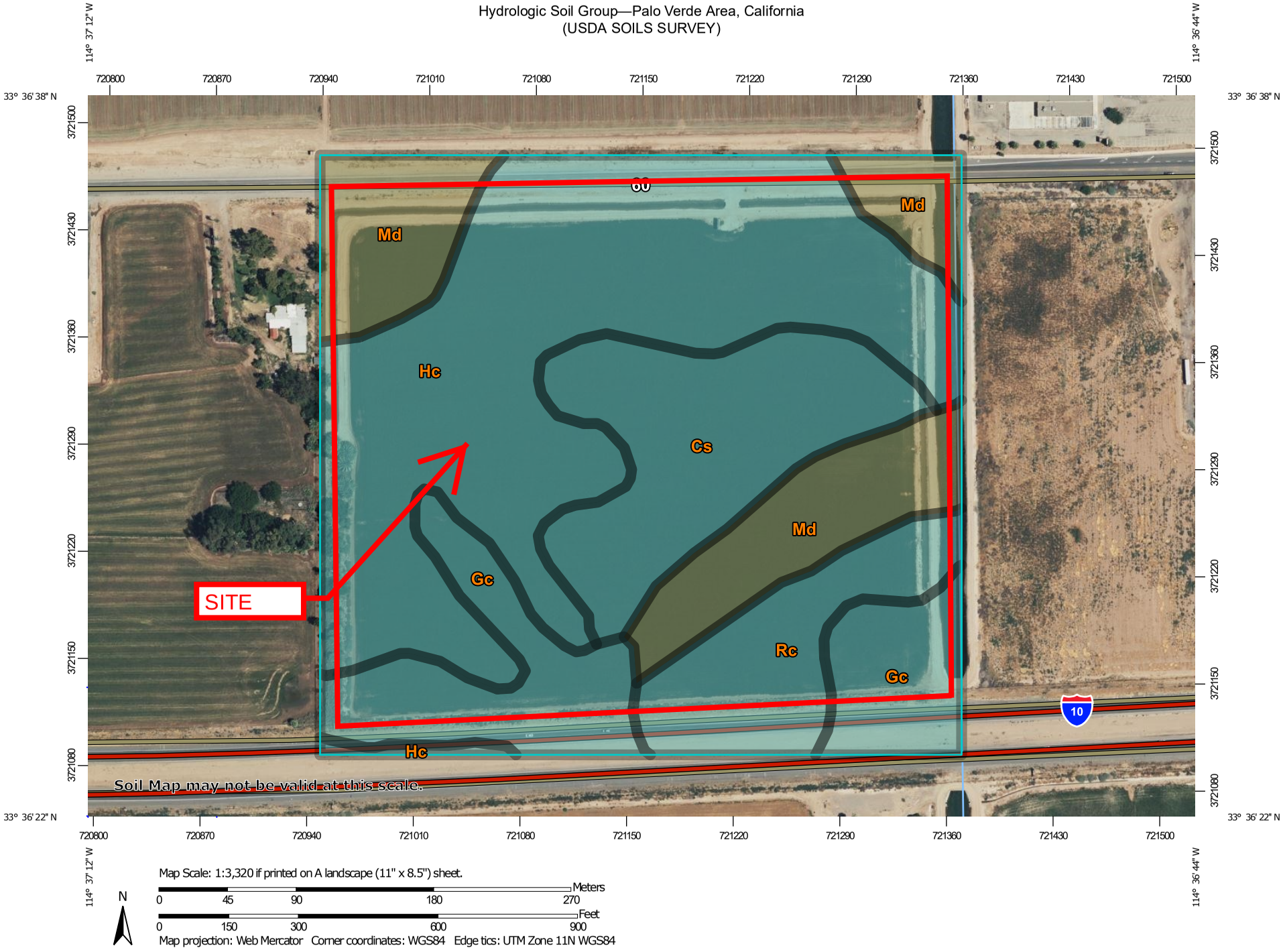
ZONE	DESCRIPTION
V	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. No base flood elevations are shown within these zones.
VE	Coastal areas with a 1% or greater chance of flooding and an additional hazard associated with storm waves. These areas have a 26% chance of flooding over the life of a 30-year mortgage. Base flood elevations derived from detailed analyses are shown at selected intervals within these zones.

Undetermined Risk Areas

ZONE	DESCRIPTION
D	Areas with possible but undetermined flood hazards. No flood hazard analysis has been conducted. Flood insurance rates are commensurate with the uncertainty of the flood risk.

Appendix C
USDA NCSS Hydrologic Soils Map

Hydrologic Soil Group—Palo Verde Area, California
(USDA SOILS SURVEY)



Map Scale: 1:3,320 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 45 90 180 270

Feet
0 150 300 600 900

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 11N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils

Soil Rating Polygons
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Lines
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Soil Rating Points
- A
- A/D
- B
- B/D
- C
- C/D
- D
- Not rated or not available

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Palo Verde Area, California
Survey Area Data: Version 12, Sep 15, 2021

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jun 4, 2020—Jun 7, 2020

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
Cs	Cibola silty clay loam	C	6.5	16.0%
Gc	Gilman silty clay loam	C	6.1	14.9%
Hc	Holtville silty clay	C	17.4	42.6%
Md	Meloland fine sandy loam	C/D	7.1	17.3%
Rc	Ripley silty clay loam	C	3.8	9.2%
Totals for Area of Interest			**40.9**	**100.0%**

Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher

Appendix D

NOAA Atlas 14

RCFCD Reference Plates

NOAA Atlas 14, Volume 6, Version 2
Location name: Blythe, California, USA*
Latitude: 33.6084°, Longitude: -114.6167°
Elevation: 267.3 ft**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

Sanja Perica, Sarah Dietz, Sarah Heim, Lillian Hiner, Kazungu Maitaria, Deborah Martin, Sandra Pavlovic, Ishani Roy, Carl Trypaluk, Dale Unruh, Fenglin Yan, Michael Yekta, Tan Zhao, Geoffrey Bonnin, Daniel Brewer, Li-Chuan Chen, Tye Parzybok, John Yarchoan

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

PDS-based point precipitation frequency estimates with 90% confidence intervals (in inches)[1]

Duration	Average recurrence interval (years)									
	1	2	5	10	25	50	100	200	500	1000
5-min	**0.089** (0.075-0.107)	**0.147** (0.123-0.177)	**0.220** (0.184-0.266)	**0.278** (0.231-0.339)	**0.355** (0.284-0.448)	**0.413** (0.323-0.532)	**0.470** (0.359-0.622)	**0.529** (0.392-0.720)	**0.606** (0.431-0.862)	**0.666** (0.456-0.982)
10-min	**0.128** (0.107-0.154)	**0.210** (0.176-0.253)	**0.315** (0.263-0.381)	**0.399** (0.330-0.486)	**0.509** (0.407-0.642)	**0.592** (0.464-0.763)	**0.674** (0.515-0.892)	**0.758** (0.562-1.03)	**0.869** (0.617-1.24)	**0.955** (0.654-1.41)
15-min	**0.154** (0.130-0.186)	**0.254** (0.213-0.306)	**0.381** (0.319-0.460)	**0.482** (0.400-0.587)	**0.615** (0.493-0.776)	**0.716** (0.561-0.923)	**0.815** (0.623-1.08)	**0.917** (0.680-1.25)	**1.05** (0.747-1.50)	**1.15** (0.791-1.70)
30-min	**0.216** (0.181-0.259)	**0.355** (0.298-0.427)	**0.532** (0.445-0.643)	**0.673** (0.558-0.820)	**0.859** (0.688-1.08)	**0.999** (0.783-1.29)	**1.14** (0.870-1.51)	**1.28** (0.949-1.74)	**1.47** (1.04-2.09)	**1.61** (1.11-2.38)
60-min	**0.299** (0.251-0.360)	**0.492** (0.413-0.593)	**0.738** (0.617-0.892)	**0.933** (0.774-1.14)	**1.19** (0.954-1.50)	**1.39** (1.09-1.79)	**1.58** (1.21-2.09)	**1.78** (1.32-2.42)	**2.04** (1.45-2.90)	**2.24** (1.53-3.30)
2-hr	**0.416** (0.350-0.501)	**0.647** (0.543-0.779)	**0.942** (0.788-1.14)	**1.18** (0.977-1.44)	**1.49** (1.20-1.88)	**1.73** (1.35-2.23)	**1.97** (1.50-2.60)	**2.21** (1.64-3.01)	**2.53** (1.80-3.60)	**2.78** (1.90-4.09)
3-hr	**0.481** (0.404-0.579)	**0.731** (0.613-0.880)	**1.05** (0.880-1.27)	**1.31** (1.09-1.60)	**1.66** (1.33-2.09)	**1.92** (1.50-2.47)	**2.18** (1.67-2.88)	**2.45** (1.82-3.33)	**2.81** (1.99-3.99)	**3.08** (2.11-4.55)
6-hr	**0.581** (0.488-0.699)	**0.864** (0.724-1.04)	**1.23** (1.03-1.49)	**1.53** (1.27-1.87)	**1.94** (1.55-2.44)	**2.25** (1.76-2.89)	**2.56** (1.95-3.38)	**2.88** (2.14-3.92)	**3.32** (2.36-4.72)	**3.66** (2.51-5.39)
12-hr	**0.651** (0.547-0.784)	**0.965** (0.810-1.16)	**1.38** (1.16-1.67)	**1.73** (1.43-2.10)	**2.20** (1.76-2.78)	**2.57** (2.02-3.32)	**2.96** (2.26-3.91)	**3.36** (2.49-4.57)	**3.91** (2.78-5.56)	**4.34** (2.98-6.40)
24-hr	**0.823** (0.726-0.951)	**1.22** (1.08-1.42)	**1.77** (1.55-2.05)	**2.22** (1.94-2.60)	**2.86** (2.43-3.45)	**3.37** (2.81-4.14)	**3.90** (3.18-4.89)	**4.47** (3.55-5.74)	**5.26** (4.02-7.02)	**5.90** (4.37-8.11)
2-day	**0.916** (0.808-1.06)	**1.36** (1.20-1.58)	**1.97** (1.73-2.29)	**2.48** (2.17-2.90)	**3.21** (2.72-3.87)	**3.80** (3.16-4.66)	**4.41** (3.59-5.53)	**5.06** (4.02-6.51)	**5.99** (4.58-7.99)	**6.74** (5.00-9.27)
3-day	**0.957** (0.844-1.11)	**1.43** (1.26-1.65)	**2.06** (1.82-2.40)	**2.60** (2.27-3.04)	**3.37** (2.86-4.06)	**3.98** (3.32-4.89)	**4.63** (3.77-5.80)	**5.32** (4.22-6.84)	**6.30** (4.82-8.40)	**7.09** (5.26-9.75)
4-day	**1.01** (0.888-1.16)	**1.50** (1.32-1.74)	**2.17** (1.91-2.52)	**2.75** (2.40-3.21)	**3.55** (3.01-4.27)	**4.20** (3.49-5.15)	**4.87** (3.97-6.11)	**5.60** (4.44-7.19)	**6.61** (5.06-8.82)	**7.44** (5.52-10.2)
7-day	**1.05** (0.924-1.21)	**1.57** (1.39-1.82)	**2.28** (2.00-2.64)	**2.87** (2.51-3.35)	**3.70** (3.13-4.45)	**4.35** (3.62-5.34)	**5.04** (4.10-6.32)	**5.77** (4.58-7.41)	**6.79** (5.19-9.05)	**7.60** (5.64-10.5)
10-day	**1.08** (0.949-1.24)	**1.61** (1.42-1.87)	**2.34** (2.05-2.71)	**2.94** (2.56-3.43)	**3.78** (3.20-4.54)	**4.44** (3.69-5.44)	**5.13** (4.17-6.43)	**5.86** (4.65-7.53)	**6.87** (5.26-9.16)	**7.69** (5.70-10.6)
20-day	**1.19** (1.05-1.38)	**1.76** (1.55-2.04)	**2.52** (2.21-2.92)	**3.15** (2.75-3.68)	**4.03** (3.41-4.85)	**4.72** (3.93-5.79)	**5.45** (4.44-6.83)	**6.22** (4.94-7.99)	**7.30** (5.59-9.74)	**8.18** (6.07-11.3)
30-day	**1.27** (1.12-1.47)	**1.85** (1.63-2.14)	**2.64** (2.32-3.06)	**3.30** (2.88-3.85)	**4.22** (3.58-5.08)	**4.96** (4.12-6.08)	**5.73** (4.66-7.18)	**6.55** (5.20-8.41)	**7.70** (5.89-10.3)	**8.64** (6.41-11.9)
45-day	**1.39** (1.23-1.61)	**2.01** (1.77-2.32)	**2.84** (2.50-3.30)	**3.55** (3.10-4.15)	**4.56** (3.86-5.49)	**5.37** (4.47-6.58)	**6.22** (5.06-7.80)	**7.13** (5.67-9.17)	**8.43** (6.45-11.2)	**9.48** (7.03-13.0)
60-day	**1.54** (1.36-1.79)	**2.19** (1.93-2.53)	**3.07** (2.70-3.56)	**3.83** (3.34-4.47)	**4.91** (4.16-5.91)	**5.79** (4.82-7.10)	**6.73** (5.48-8.43)	**7.74** (6.14-9.94)	**9.19** (7.03-12.3)	**10.4** (7.70-14.3)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of partial duration series (PDS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and average recurrence interval) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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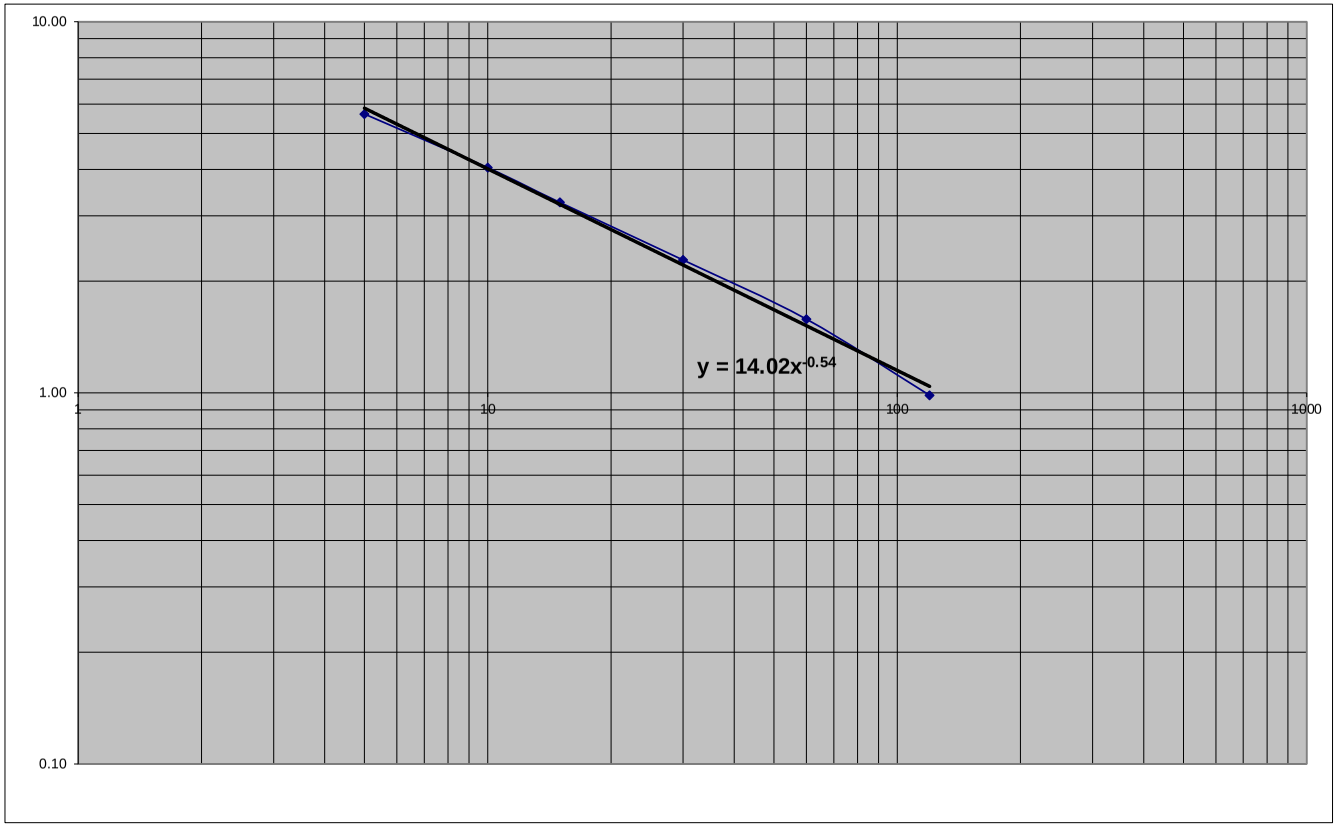
PF graphical

NOAA ATLAS 14 INTENSITY - DURATION WORKSHEET

PROJECT NAME	Edelweiss Substainable Farms, L.L.C.
PROJECT NUMBER	2626
STORM EVENT	100 yr
DATE:	March 25, 2022

DATA FROM NOAA ATLAS 14

MINUTES	RAINFALL INTENSITY (in/hr)	RAINFALL DEPTH (in)
5	5.64	0.47
10	4.04	0.67
15	3.26	0.82
30	2.28	1.14
60	1.58	1.58
120	0.99	1.97



INTENSITY VALUES FROM GRAPH

CONSTANT FROM GRAPH	14.02
EXPONENT FROM GRAPH	-0.54

MINUTES	RAINFALL INTENSITY (in/hr)	RAINFALL DEPTH (in)
5	5.88	0.49
10	4.04	0.67
15	3.25	0.81
20	2.78	0.93
25	2.47	1.03
30	2.23	1.12
35	2.06	1.20
40	1.91	1.28
45	1.79	1.35
50	1.70	1.41
55	1.61	1.48
60	1.54	1.54
65	1.47	1.59
70	1.41	1.65
75	1.36	1.70
80	1.32	1.75
85	1.27	1.80
90	1.23	1.85
95	1.20	1.90
100	1.17	1.94
105	1.14	1.99
110	1.11	2.03
115	1.08	2.07
120	1.06	2.11

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
NATURAL COVERS -					
Barren (Rockland, eroded and graded land)		78	86	91	93
Chaparrel, Broadleaf (Manzonita, ceanothus and scrub oak)	Poor	53	70	80	85
	Fair	40	63	75	81
	Good	31	57	71	78
Chaparrel, Narrowleaf (Chamise and redshank)	Poor	71	82	88	91
	Fair	55	72	81	86
Grass, Annual or Perennial	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Meadows or Cienegas (Areas with seasonally high water table, principal vegetation is sod forming grass)	Poor	63	77	85	88
	Fair	51	70	80	84
	Good	30	58	72	78
Open Brush (Soft wood shrubs - buckwheat, sage, etc.)	Poor	62	76	84	88
	Fair	46	66	77	83
	Good	41	63	75	81
Woodland (Coniferous or broadleaf trees predominate. Canopy density is at least 50 percent)	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	28	55	70	77
Woodland, Grass (Coniferous or broadleaf trees with canopy density from 20 to 50 percent)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
URBAN COVERS -					
Residential or Commercial Landscaping (Lawn, shrubs, etc.)	Good	32	56	69	75
Turf (Irrigated and mowed grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
AGRICULTURAL COVERS -					
Fallow (Land plowed but not tilled or seeded)		76	85	90	92

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RUNOFF INDEX NUMBERS FOR PERVIOUS AREAS

RUNOFF INDEX NUMBERS OF HYDROLOGIC SOIL-COVER COMPLEXES FOR PERVIOUS AREAS-AMC II

Cover Type (3)	Quality of Cover (2)	Soil Group A	B	C	D
AGRICULTURAL COVERS (cont.) -					
Legumes, Close Seeded (Alfalfa, sweetclover, timothy, etc.)	Poor	66	77	85	89
	Good	58	72	81	85
Orchards, Deciduous (Apples, apricots, pears, walnuts, etc.)		See Note 4			
Orchards, Evergreen (Citrus, avocados, etc.)	Poor	57	73	82	86
	Fair	44	65	77	82
	Good	33	58	72	79
Pasture, Dryland (Annual grasses)	Poor	67	78	86	89
	Fair	50	69	79	84
	Good	38	61	74	80
Pasture, Irrigated (Legumes and perennial grass)	Poor	58	74	83	87
	Fair	44	65	77	82
	Good	33	58	72	79
Row Crops (Field crops - tomatoes, sugar beets, etc.)	Poor	72	81	88	91
	Good	67	78	85	89
Small Grain (Wheat, oats, barley, etc.)	Poor	65	76	84	88
	Good	63	75	83	87
Vineyard		See Note 4			

Notes:

1. All runoff index (RI) numbers are for Antecedent Moisture Condition (AMC) II.

2. Quality of cover definitions:
   Poor-Heavily grazed or regularly burned areas. Less than 50 percent of the ground surface is protected by plant cover or brush and tree canopy.
   Fair-Moderate cover with 50 percent to 75 percent of the ground surface protected.
   Good-Heavy or dense cover with more than 75 percent of the ground surface protected.

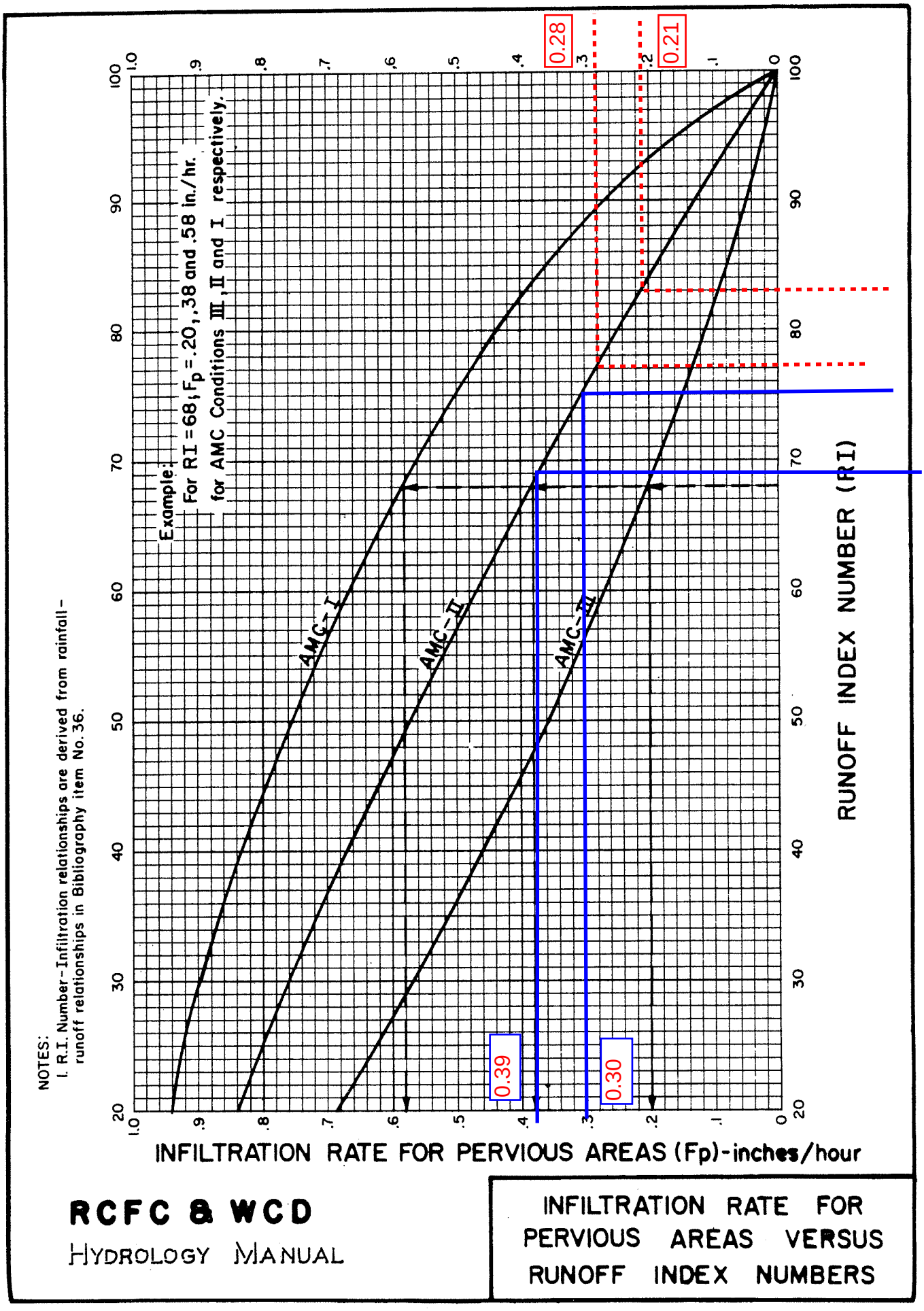
3. See Plate C-2 for a detailed description of cover types.

4. Use runoff index numbers based on ground cover type. See discussion under "Cover Type Descriptions" on Plate C-2.

5. Reference Bibliography item 17.

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RUNOFF INDEX NUMBERS FOR PERVIOUS AREAS



NOTES:
1. R.I. Number-Infiltration relationships are derived from rainfall-runoff relationships in Bibliography item No. 36.

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HYDROLOGY MANUAL

INFILTRATION RATE FOR PERVIOUS AREAS VERSUS RUNOFF INDEX NUMBERS

PLATE E-6.2

ACTUAL IMPERVIOUS COVER

Land Use (1)	Range-Percent	Recommended Value For Average Conditions-Percent(2)
Natural or Agriculture	0 - 10	0
Single Family Residential: (3)		
40,000 S. F. (1 Acre) Lots	10 - 25	20
20,000 S. F. (½ Acre) Lots	30 - 45	40
7,200 - 10,000 S. F. Lots	45 - 55	50
Multiple Family Residential:		
Condominiums	45 - 70	65
Apartments	65 - 90	80
Mobile Home Park	60 - 85	75
Commercial, Downtown Business or Industrial	80 -100	90

Notes:

1. Land use should be based on ultimate development of the watershed. Long range master plans for the County and incorporated cities should be reviewed to insure reasonable land use assumptions.

2. Recommended values are based on average conditions which may not apply to a particular study area. The percentage impervious may vary greatly even on comparable sized lots due to differences in dwelling size, improvements, etc. Landscape practices should also be considered as it is common in some areas to use ornamental gravels underlain by impervious plastic materials in place of lawns and shrubs. A field investigation of a study area should always be made, and a review of aerial photos, where available may assist in estimating the percentage of impervious cover in developed areas.

3. For typical horse ranch subdivisions increase impervious area 5 percent over the values recommended in the table above.

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HYDROLOGY MANUAL

IMPERVIOUS COVER FOR DEVELOPED AREAS

PLATE E-6.3

Appendix E

Sladden Engineering Percolation/Infiltration testing Report

Sladden Engineering

45090 Golf Center Parkway, Suite F, Indio, CA. 92201 (760) 863-0713 Fax (760) 863-0847
6782 Stanton Avenue, Suite C, Buena Park, CA. 90621 (714) 523-0952 Fax (714) 523-1369
450 Egan Avenue, Beaumont, CA. 92223 (951) 845-7743 Fax (951) 845-8863

June 22, 2021

Project No. 544-21066
21-06-376

Edelweiss Sustainable Farm, LLC
c/o Mr. Jim Shaffer
56540 Chipmunk Trail
Yucca Valley, California 92284

Project: Proposed Cultivation Facility
11625 West Hobsonway
Blythe, California

Subject: Percolation/Infiltration Testing for On-Site Storm Water Management

In accordance with your request, we have performed percolation testing on the subject site to evaluate the infiltration potential of the near surface soil to assist in storm water management system design. It is our understanding that on-site storm water retention including infiltration is proposed for the project.

Percolation testing was performed on May 20, 2021 within two (2) shallow tests bore excavated on the site. Testing was performed at depths of approximately 3.50 and 3.00 feet below existing grade for BH-5/SW-1 and BH-6/SW-2, respectively. The approximate locations of the test holes are presented on the attached Exploration Location Photograph (Figure 3). Testing was performed by placing water within the test bores and recording the drop in the water surface with time. Testing was performed in general accordance with the *United States Bureau of Reclamation (BOR) Procedure 7300-89 (1999)*. Test results are summarized in the following table.

PERCOLATION TEST RESULTS

Test No.	Depth (Ft)	USCS	Percolation Rate (in/hr)	Infiltration Rate (in/hr)
BH-5 (SW-1)	3.50	SC/CL	9.00	0.91
BH-6 (SW-2)	3.00	SC/CL	8.75	0.88

The percolation rates determined represent the ultimate field rates that do not include a safety factor. The corresponding infiltration rates were calculated using the Porchet Method. The rates determined should be considered representative of the low permeability clayey surface soil and the underlying high permeability sandy soil.

Groundwater was encountered at a depth of approximately 7.5 feet below existing grade during our field investigation and historical groundwater depths[1] have been recorded at a depth of 6.0 feet bgs in the project vicinity.

[1] California Department of Water Resources (CDWR), 2021, Water Data Library (WDL) Station Map available at: https://wdl.water.ca.gov/waterdatalibrary/

If you have any questions regarding this memo, please contact the undersigned.

Respectfully submitted,
SLADDEN ENGINEERING

James W. Minor III
Senior Geologist

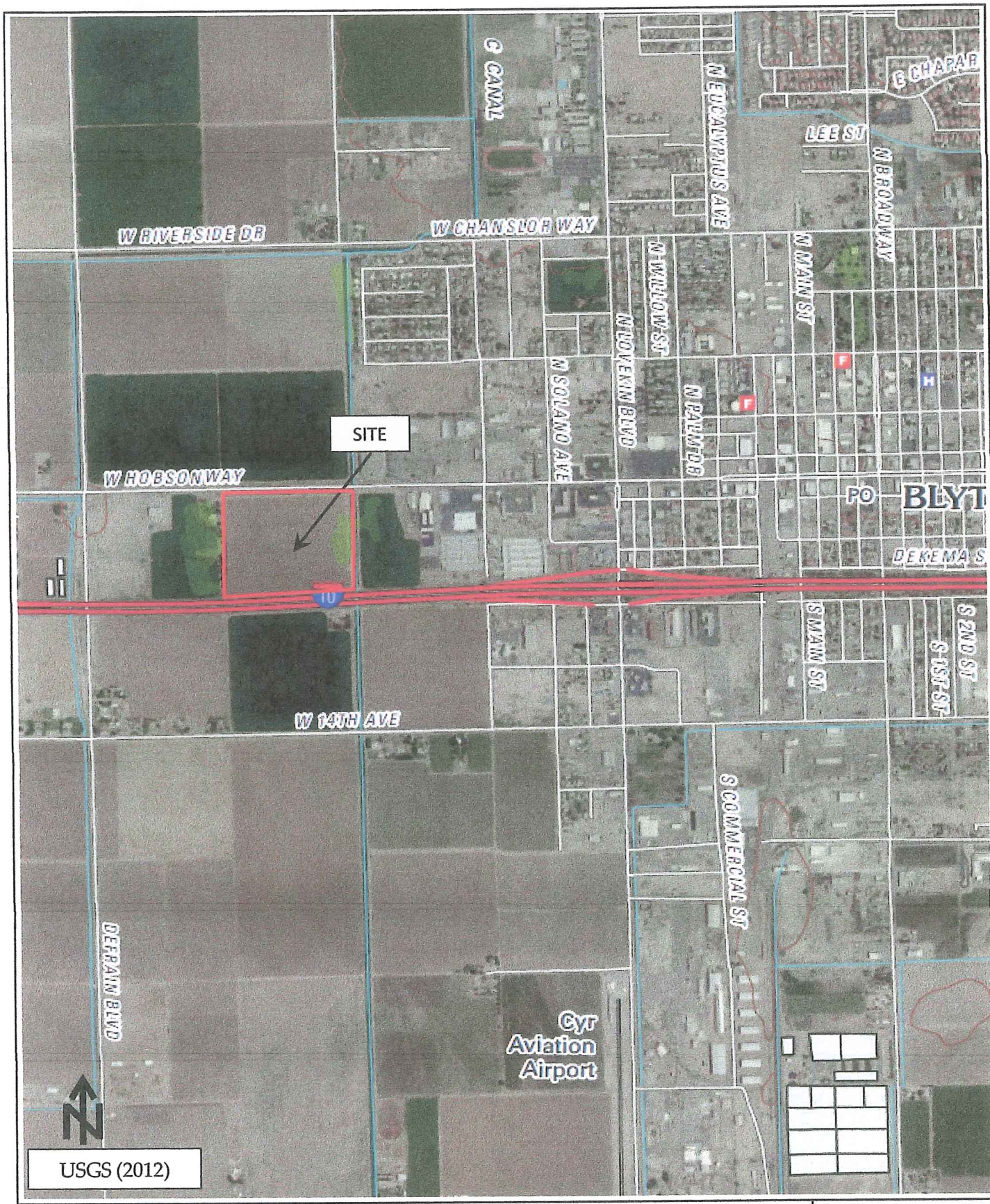
PROFESSIONAL GEOLOGIST
JAMES W. MINOR III
No. 9735
STATE OF CALIFORNIA

REGISTERED PROFESSIONAL ENGINEER
BRETT L. ANDERSON
No. C45389
CIVIL ENGINEERING
STATE OF CALIFORNIA

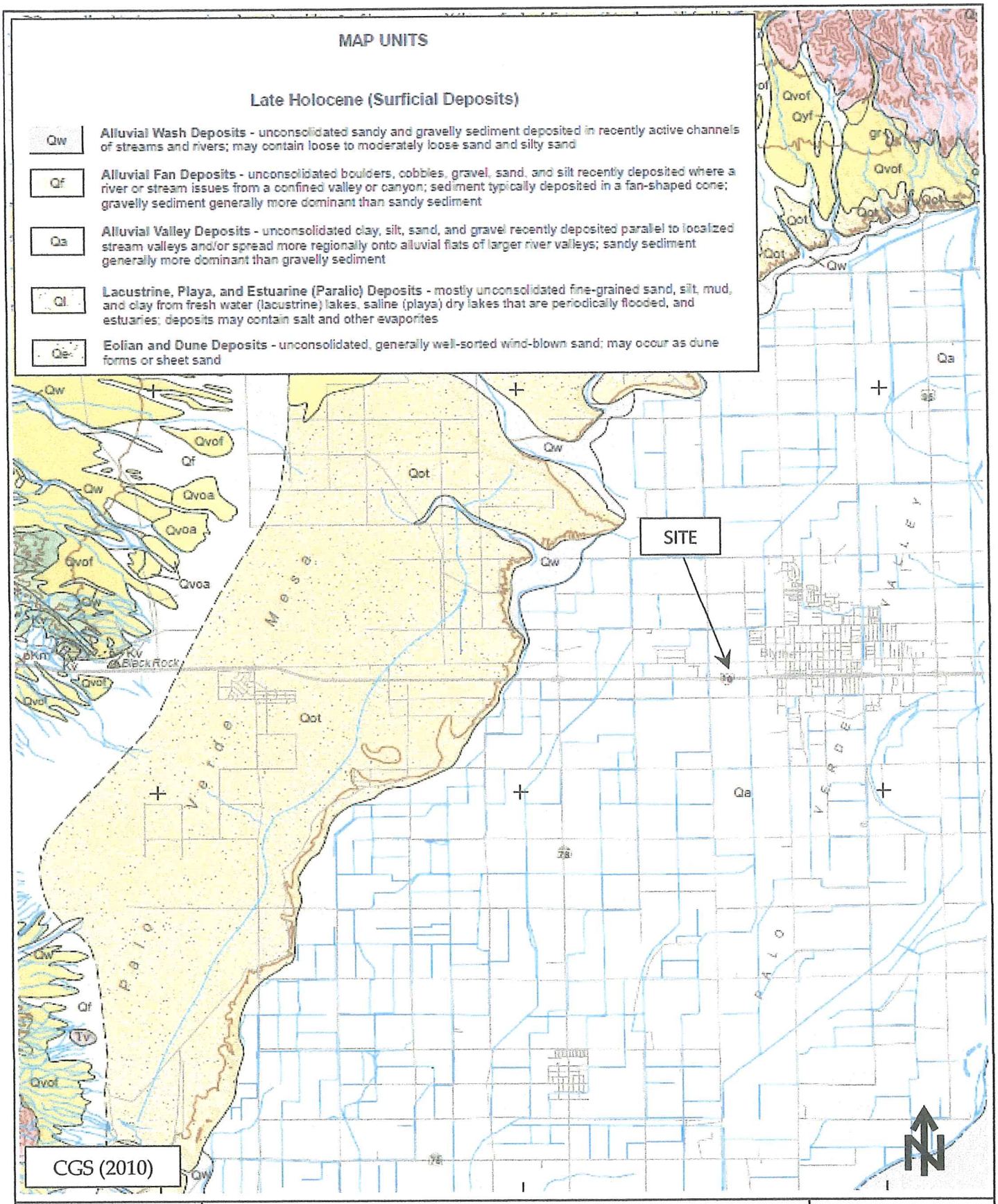
Brett L. Anderson
Principal Engineer

Copies: 4/Addressee

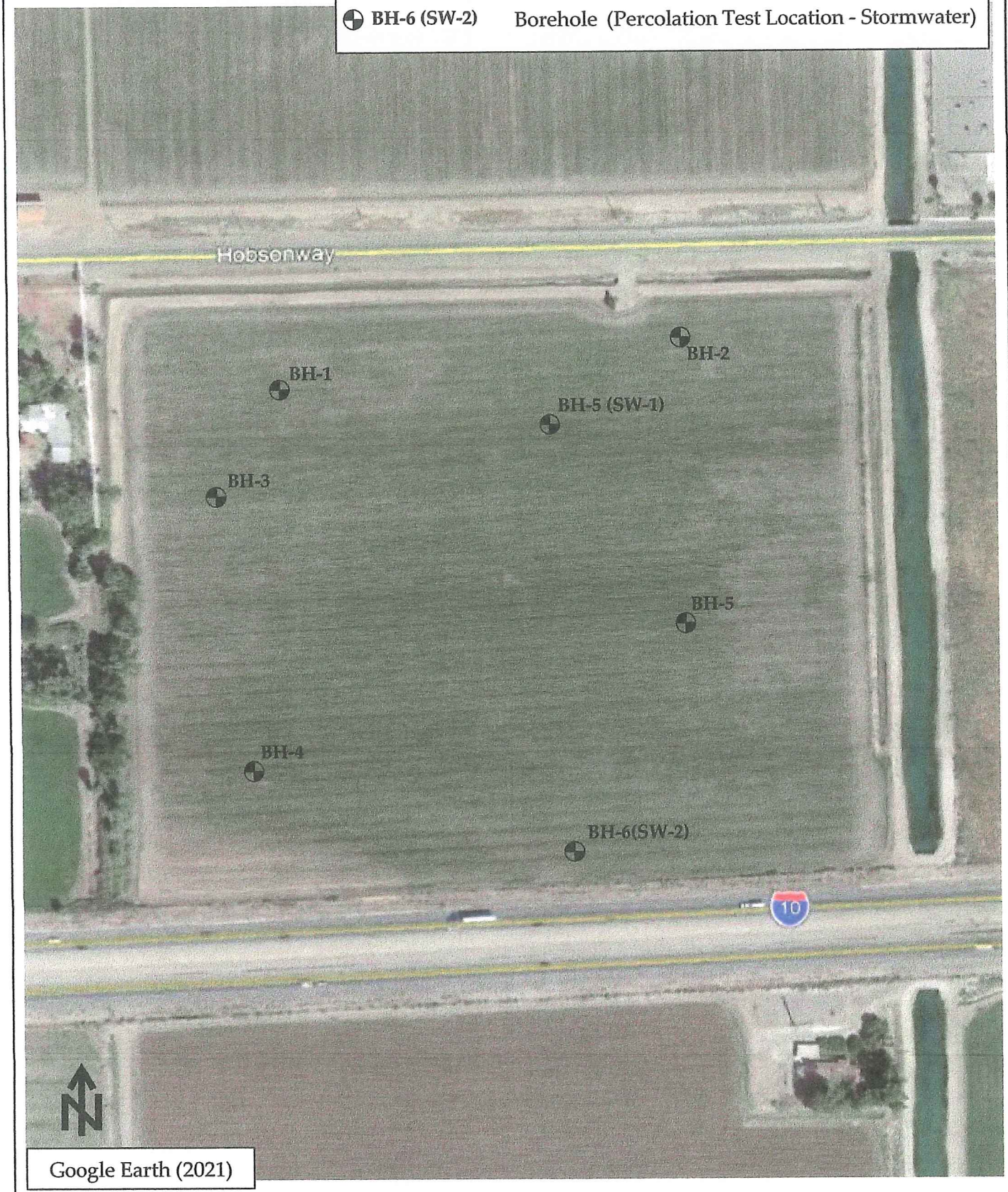
SITE LOCATION MAP
REGIONAL GEOLOGIC MAP
EXPLORATION LOCATION PHOTOGRAPH



Sladden Engineering	SITE LOCATION MAP		FIGURE 1
	Project Number:	544-21066	
	Report Number:	21-06-376	
	Date:	June 22, 2021	



Sladden Engineering	SITE LOCATION MAP	FIGURE 2
	Project Number: 544-21066	
	Report Number: 21-06-376	
	Date: June 22, 2021	



Sladden Engineering	EXPLORATION LOCATION PHOTOGRAPH		FIGURE
	Project Number:	544-21066	3
	Report Number:	21-06-376	
	Date:	June 22, 2021	

BORELOGS

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
		1	4				0–2		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2–4		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
	3/4/6			75.0	27.7		4–8		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	4/5/5			83.8	26.7	98.2	8–14		Silty Clay (CL); reddish brown, wet, stiff, low platicity (Qa).
	13/17/17						14–20		No Recovery
							20–50		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	3/3/4			89.3	24.1	94.2	2		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/4/4			85.3	28.3	95.2	4		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/5/6			21.6	26.4		6		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
	5/7/8			3.9	22.9		8		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							10		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.
							12		
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No:	544-21066	Page	2
Report No:	21-06-376		

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-3

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	4/5/7						6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	3/5/6						10		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
	6/8/8						16		Sand (SP); yellowish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							20		Terminated at ~20.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-4

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							2		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
	5/5/6						6		Silty Clay (CL); reddish brown, very moist, medium stiff, low to medium platicity (Qa).
	5/8/12						10		Clayey Sand (SC); reddish brown, wet, medium dense, fine-grained, well-sorted (Qa)
							16		Terminated at ~15.0 Feet bgs (Heaving Sands). Groundwater Encountered at ~ 7.5 Feet bgs. No Bedrock Encoutered.

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No: 544-21066
Report No: 21-06-376

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-5/SW-1

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.5 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No:	544-21066	Page	5
Report No:	21-06-376		

SLADDEN ENGINEERING

BORE LOG

Drill Rig:	Mobile B-61	Date Drilled:	5/20/2021
Elevation:	260 Ft (MSL)	Boring No:	BH-6/SW-2

Sample	Blow Counts	Bulk Sample	Expansion Index	% Minus #200	% Moisture	Dry Density	Depth (Feet)	Graphic Lithology	Description
							0		Sandy Clay (CL); reddish brown, very moist, medium, low to medium plasticity (Fill/Disturbed).
							2		Silty Clay (CL); reddish brown, very moist, low to medium platicity (Qa).
							4		
							6		Terminated at ~ 3.0 Feet bgs.
							8		No Groundwater Encountered.
							10		No Bedrock Encoutered.
							12		Cased to Facilitate Percolation Testing.
							14		
							16		
							18		
							20		
							22		
							24		
							26		
							28		
							30		
							32		
							34		
							36		
							38		
							40		
							42		
							44		
							46		
							48		
							50		

Completion Notes:

PROPOSED CULTIVATION FACILITY
11625 WEST HOBSONWAY, BLYTHE

Project No:	544-21066	Page	6
Report No:	21-06-376		

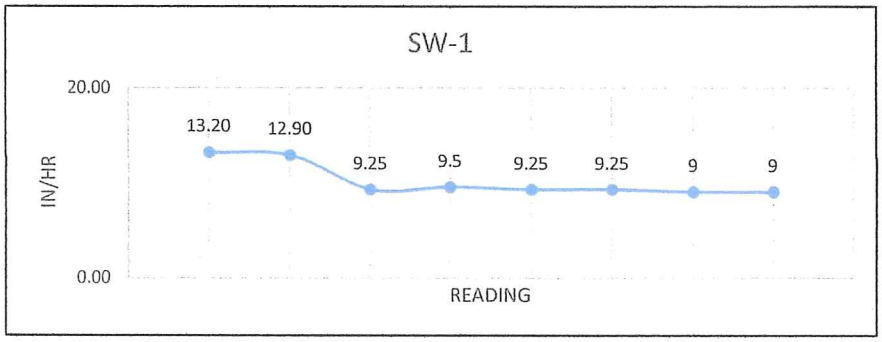
RIVERSIDE COUNTY STORMWATER TESTING DATA SHEETS

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	11625 West Hobsonway, Blythe; APN 836-:	Depth (ft):	3.50
Job No. :	544-21066	USCS Soil Class:	SC/CL
Date:	5/20/2021	Sandy Soil:	J.M.
Test Hole #:	BH-5 (SW-1)	Tested By:	R.F.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	3.50	20	14 4/8	5 4/8	13.20
B	25.00	3.50	20	14 5/8	5 3/8	12.90

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	3.50	20	15 3/8	4 5/8	9.25
2	30.00	3.50	20	15 2/8	4 6/8	9.5
3	30.00	3.50	20	15 3/8	4 5/8	9.25
4	30.00	3.50	20	15 3/8	4 5/8	9.25
5	30.00	3.50	20	15 4/8	4 4/8	9
6	30.00	3.50	20	15 4/8	4 4/8	9



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	26.50
r =	4.00
D_0 =	22
D_t =	42.00
H_0 =	20
H_f =	15.5
ΔH =	4.50
H_{avg} =	17.75

Δt (minutes)
D_f (Final Depth to water)
r (hole radius in inches)
D_0 (Initial Depth to water)
D_t (Total Depth of test hole)
H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

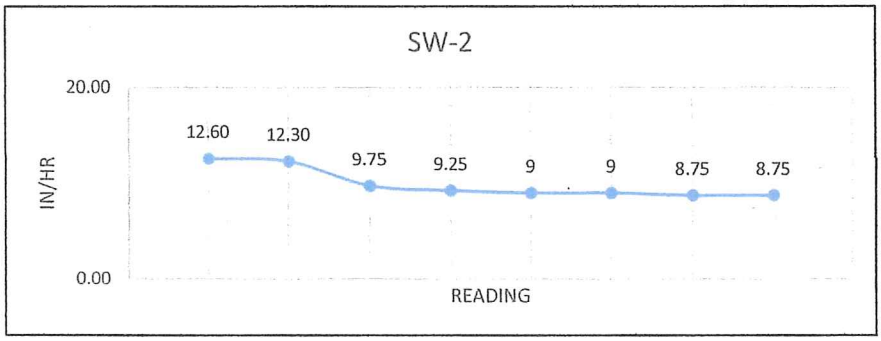
Field Rate:	9 in/hr
Infiltration Rate:	0.91 in/hr

STORMWATER PERCOLATION SHEET (LESS THAN 10 FT)

Project:	11625 West Hobsonway, Blythe; APN 836-:	Depth (ft):	3.00
Job No. :	544-21066	USCS Soil Class:	CL
Date:	5/20/2021	Sandy Soil:	J.M.
Test Hole #:	BH-6 (SW-2)	Tested By:	R.F.

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
A	25.00	3.00	20	14 6/8	5 2/8	12.60
B	25.00	3.00	20	14 7/8	5 1/8	12.30

READING	TIME (min)	DEPTH (ft)	INITIAL W (in)	FINAL W (in)	ΔW (in)	IN/HR
1	30.00	3.00	20	15 1/8	4 7/8	9.75
2	30.00	3.00	20	15 3/8	4 5/8	9.25
3	30.00	3.00	20	15 4/8	4 4/8	9
4	30.00	3.00	20	15 4/8	4 4/8	9
5	30.00	3.00	20	15 5/8	4 3/8	8.75
6	30.00	3.00	20	15 5/8	4 3/8	8.75



PERCOLATION RATE CONVERSION (PORCHET METHOD)

$$I_{t=} \quad \frac{\Delta H\ 60\ R}{\Delta t(r+2H_{avg})}$$

Δt =	30.00
D_f =	20.38
r =	4.00
D_0 =	16
D_t =	36.00
H_0 =	20
H_f =	15.625
ΔH =	4.38
H_{avg} =	17.81

Δt (minutes)

D_f (Final Depth to water)

r (hole radius in inches)

D_0 (Initial Depth to water)

D_t (Total Depth of test hole)

H_0 (initial height of water at selected time interval)

$$H_0 = D_t - D_0$$

H_f (final height of water at the selected time interval)

$$H_f = D_t - D_f$$

ΔH (change in head over the time interval)

$$\Delta H = H_0 - H_f$$

H_{avg} (average head height over the time interval)

$$H_{avg} = (H_0 + H_f)/2$$

Field Rate:	8.75 in/hr
Infiltration Rate:	0.88 in/hr

Appendix F

RCFCD Synthetic Unit Hydrograph Worksheets
Retention Basin Volume Worksheets

RCFCD SYNTHETIC UNIT HYDROGRAPH - SHORTCUT METHOD
INCREMENTAL INCREASE WORKSHEET

DATA INPUT SHEET

DATE:	March 25, 2022
WORKSHEET PREPARED BY:	FOS
PROJECT NAME	EDELWEISS SUBSTAIN DARM
PROJECT NUMBER	2626
CONCENTRATION POINT DESIGNATION	RETENTION BASINS
AREA DESIGNATION	DA-A
AMC NUMBER	2

Low Loss Conditions: X=Existing; D=Developed; BS=Retention

EXISTING CONDITIONS

AREA DESIG	SOIL GROUP	TRIBUTARY AREAS	ACRES	LOW LOSS CONDITION	RI NUMBER	AMC II INFILTRATION RATE	IMPERVIOUS PERCENT
13	C	EXISTING OPEN BRUSH - FAIR	26.132	X	77	0.28	0.05
13	D	EXISTING OPEN BRUSH - FAIR	5.736	X	83	0.21	0.05

PROPOSED CONDITIONS

AREA DESIG	SOIL GROUP	TRIBUTARY AREAS	ACRES	LOW LOSS CONDITION	RI NUMBER	AMC II INFILTRATION RATE	IMPERVIOUS PERCENT
1	C	COMMERCIAL	26.132	D	69	0.39	0.90
1	D	COMMERCIAL	5.736	D	75	0.30	0.90

	UNDEVELOPED	DEVELOPED
LENGTH OF WATERCOURSE (L)	2,370 ft	2,370 ft
LENGTH TO POINT OPPOSITE CENTROID (Lca)	1,185 ft	1,185 ft
ELEVATION OF HEADWATER	275.5 ft	275.5 ft
ELEVATION OF CONCENTRATION POINT	264.0 ft	264.0 ft
AVERAGE MANNINGS 'N' VALUE	0.03	0.02

STORM FREQUENCY (YEAR)	100
LOW LOSS RATE (Storm Events > 10 Years)	85%
POINT RAIN FROM NOAA ATLAS	**1.58**
1-HOUR	1.58 in
3-HOUR	2.18 in
6-HOUR	2.56 in
24-HOUR	3.90 in

BASIN CHARACTERISTICS:

ELEVATION	AREA
261.0 ft	43,462 sf
262.0 ft	48,891 sf
263.0 ft	54,432 sf
264.0 ft	60,087 sf

PERCOLATION RATE	0.9 in/hr
DRYWELL DATA	
NUMBER USED	
PERCOLATION RATE	
LOWEST FLOWLINE ELEVATION	263.50 ft
LOWEST PAD ELEVATION	265.5 ft

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD BASIC DATA CALCULATION FORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 BY: FOS DATE: 3/25/22

PHYSICAL DATA

	UNDEVELOPED CONDITION	DEVELOPED CONDITION
[1] CONCENTRATION POINT	RETENTION BASINS	RETENTION BASINS
[2] AREA DESIGNATION	DA-A	DA-A
[3] AREA - ACRES	31.868	31.868
[4] L-FEET	2370	2370
[5] L-MILES	0.449	0.449
[6] La-FEET	1185.00	1185.00
[7] La-MILES	0.224	0.224
[8] ELEVATION OF HEADWATER	275.5	275.5
[9] ELEVATION OF CONCENTRATION POINT	264	264
[10] H-FEET	11.5	11.5
[11] S-FEET/MILE	25.6	25.6
[12] S^0.5	5.06	5.06
[13] L*LCA/S^0.5	0.020	0.020
[14] AVERAGE MANNINGS 'N'	0.03	0.02
[15] LAG TIME-HOURS	0.16	0.11
[16] LAG TIME-MINUTES	9.8	6.5
[17] 100% OF LAG-MINUTES	9.8	6.5
[18] 200% OF LAG-MINUTES	19.5	13.0

RAINFALL DATA

[1] AMC	II
[2] FREQUENCY-YEARS	100
NOAA ATLAS	**1.58**
[3] STORM DURATION:	POINT RAIN
1-HOUR	1.58 in
3-HOUR	2.18 in
6-HOUR	2.56 in
24-HOUR	3.90 in

STORM EVENT SUMMARY

		UNDEVELOPED CONDITION				DEVELOPED CONDITION			
DURATION		1-HOUR	3-HOUR	6-HOUR	24-HOUR	1-HOUR	3-HOUR	6-HOUR	24-HOUR
EFFECTIVE RAIN	(in)	1.32	1.42	1.21	1.09	1.51	1.97	2.14	2.49
FLOOD VOLUME	(cu-ft)	153,234	164,736	139,747	126,523	174,559	227,536	247,028	288,165
	(acre-ft)	3.52	3.78	3.21	2.90	4.01	5.22	5.67	6.62
PEAK FLOW	(cfs)	N/A	60.72	47.07	9.98	N/A	66.65	53.00	15.08

STORM EVENT SUMMARY

DURATION		1-HOUR	3-HOUR	6-HOUR	24-HOUR
DEVELOPED CONDITION FLOOD VOLUME	(cu-ft)	174,559	227,536	247,028	**288,165**
	(ac-ft)	4.01	5.22	5.67	6.62
UNDEVELOPED CONDITION FLOOD VOLUME	(cu-ft)	153,234	164,736	139,747	126,523
	(ac-ft)	3.52	3.78	3.21	2.90
INCREMENTAL INCREASE IN FLOOD VOLUME	(cu-ft)	21,325	62,800	107,282	161,642
	(ac-ft)	0.49	1.44	2.46	3.71
TOTAL FLOOD VOLUME RETAINED	(cu-ft)	158,479	166,342	177,130	210,348
	(ac-ft)	3.64	3.82	4.07	4.83
TOTAL BASIN OUTFLOW	(cu-ft)	16,080	61,194	69,898	77,818
	(ac-ft)	0.37	1.40	1.60	1.79
	(cfs)	33.98	65.40	51.75	10.41
MAXIMUM WSEL	(ft)	**263.99**	**263.99**	**263.99**	263.98
DEPTH	(ft)	**2.99**	**2.99**	**2.99**	2.98
LOWEST FLOWLINE ELEVATION		263.50			
DIFFERENCE	(ft)	-0.49	-0.49	-0.49	-0.48
LOWEST PAD ELEVATION		265.50			
DIFFERENCE	(ft)	1.51	1.51	1.51	1.52
ESTIMATED TIME TO DEWATER BASIN Based on total Flood Volume & Average Percolation Rate	(days)	1.7	1.8	1.9	2.5

NOTE: PEAK FLOW FOR THE 1-HOUR STORM IS NOT REPRESENTATIVE. PER RCFCD THE 3-HOUR STORM PEAK DISCHARGES SHOULD NORMALLY COMPARE WELL WITH RATIONAL PEAKS.

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD BASIC DATA CALCULATION FORM AMC II	PROJECT:	EDELWEISS SUBSTAIN DARM		
		Job No.:	2626		
		BY:	FOS	DATE:	3/25/22

AVERAGE ADJUSTED LOSS RATE - UNDEVELOPED CONDITIONS

SOIL GROUP [Plate C-1]	LAND USE	RI NUMBER [Plate E-6.1]	PERVIOUS AREA INFILTRATION RATE (in/hr) [Plate E-6.2]	DECIMAL PERCENT OF AREA IMPERVIOUS [Plate E-6.3]	ADJUSTED INFILTRATION RATE (in/hr)	AREA	AREA WEIGHTED AVERAGE	MAX AVERAGE ADJUSTED INFILTRATION RATE (in/hr)	LOW LOSS CONDITION	LOW LOSS RATE PER RCFC/2322 (in/hr)	MIN AVERAGE ADJUSTED INFILTRATION RATE (in/hr)
C	EXISTING OPEN BRUSH - FAIR	77	0.28	5%	0.27	26.132	0.820	0.2193	UNDEVELOPED	0.9000	0.7380
D	EXISTING OPEN BRUSH - FAIR	83	0.21	5%	0.20	5.736	0.180	0.0361	UNDEVELOPED	0.9000	0.1620
					SUM	31.868	SUM	0.2554			0.9000

VARIABLE LOSS RATE CURVE (24-HOUR STORM ONLY)

Fm= 0.1276835

C= 0.00236

Ft=C(24-(T/60))^1.55 = 0.00236 (24-(T/60))^1.55 + **0.13** in/hr

CONSTANT LOSS RATE (3 & 6 HOUR STORMS) = **0.2554** in/hr

LOW LOSS RATE = **0.8500** in/hr

Where:

T=Time in minutes. To get an average value for each unit time period, Use T=1/2 the unit time for the first time period, T=1 1/2 unit time for the second period, etc.

NOTE: Low loss rates established per RCFC/2322 (Dated: May-30-95)
For 2, 5 & 10 Year Storm Events
Undeveloped Condition: Low Loss = 90%
Developed Condition: Low Loss = 0.9 - (0.8 * %impervious)
Basin Site: Low Loss = 10%
For 100 Year Storm - Low Loss should be between 80% & 90% of the Rainfall Rate

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 1-HOUR STORM	PROJECT: Job No.: BY:	EDELWEISS SUBSTAIN DARM 2626 DATE FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	
UNIT TIME-MINUTES	5	
LAG TIME - MINUTES	9.75	
UNIT TIME-PERCENT OF LAG	51.3	
TOTAL ADJUSTED STORM RAIN-INCHES	1.58	
CONSTANT LOSS RATE-in/hr		0.26
LOW LOSS RATE - PERCENT		85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	3.6	0.68	0.26	0.58	0.43	13.73
2	10	0.17	4.2	0.80	0.26	0.68	0.54	17.38
3	15	0.25	4.4	0.83	0.26	0.71	0.58	18.60
4	20	0.33	4.6	0.87	0.26	0.74	0.62	19.82
5	25	0.42	5.0	0.95	0.26	0.81	0.69	22.26
6	30	0.50	5.6	1.06	0.26	0.90	0.81	25.91
7	35	0.58	6.4	1.21	0.26	1.03	0.96	30.79
8	40	0.67	8.1	1.54	0.26	1.31	1.28	41.14
9	45	0.75	13.1	2.48	0.26	2.11	2.23	71.61
10	50	0.83	34.5	6.54	0.26	5.56	6.29	**201.99**
11	55	0.92	6.7	1.27	0.26	1.08	1.01	32.61
12	60	1.00	3.8	0.72	0.26	0.61	0.47	14.95

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.32
FLOOD VOLUME (acft)	3.52
FLOOD VOLUME (cuft)	153,234
PEAK FLOW RATE (cfs)	201.99

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 3-HOUR STORM	PROJECT: Job No.: BY:	EDELWEISS SUBSTAIN DARM 2626 DATE FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	
UNIT TIME-MINUTES	5	
LAG TIME - MINUTES	9.75	
UNIT TIME-PERCENT OF LAG	51.3	
TOTAL ADJUSTED STORM RAIN-INCHES	2.18	
CONSTANT LOSS RATE-in/hr		0.26
LOW LOSS RATE - PERCENT		85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	1.3	0.34	0.26	0.29	0.08	2.72
2	10	0.17	1.3	0.34	0.26	0.29	0.08	2.72
3	15	0.25	1.1	0.29	0.26	0.24	0.03	1.04
4	20	0.33	1.5	0.39	0.26	0.33	0.14	4.40
5	25	0.42	1.5	0.39	0.26	0.33	0.14	4.40
6	30	0.50	1.8	0.47	0.26	0.40	0.22	6.93
7	35	0.58	1.5	0.39	0.26	0.33	0.14	4.40
8	40	0.67	1.8	0.47	0.26	0.40	0.22	6.93
9	45	0.75	1.8	0.47	0.26	0.40	0.22	6.93
10	50	0.83	1.5	0.39	0.26	0.33	0.14	4.40
11	55	0.92	1.6	0.42	0.26	0.36	0.16	5.24
12	60	1.00	1.8	0.47	0.26	0.40	0.22	6.93
13	65	1.08	2.2	0.58	0.26	0.49	0.32	10.29
14	70	1.17	2.2	0.58	0.26	0.49	0.32	10.29
15	75	1.25	2.2	0.58	0.26	0.49	0.32	10.29
16	80	1.33	2.0	0.52	0.26	0.44	0.27	8.61
17	85	1.42	2.6	0.68	0.26	0.58	0.42	13.65
18	90	1.50	2.7	0.71	0.26	0.60	0.45	14.49
19	95	1.58	2.4	0.63	0.26	0.53	0.37	11.97
20	100	1.67	2.7	0.71	0.26	0.60	0.45	14.49
21	105	1.75	3.3	0.86	0.26	0.73	0.61	19.53
22	110	1.83	3.1	0.81	0.26	0.69	0.56	17.85
23	115	1.92	2.9	0.76	0.26	0.64	0.50	16.17
24	120	2.00	3.0	0.78	0.26	0.67	0.53	17.01
25	125	2.08	3.1	0.81	0.26	0.69	0.56	17.85
26	130	2.17	4.2	1.10	0.26	0.93	0.84	27.10
27	135	2.25	5.0	1.31	0.26	1.11	1.05	33.82
28	140	2.33	3.5	0.92	0.26	0.78	0.66	21.22
29	145	2.42	6.8	1.78	0.26	1.51	1.52	48.96
30	150	2.50	7.3	1.91	0.26	1.62	1.65	53.16
31	155	2.58	8.2	2.15	0.26	1.82	1.89	**60.72**
32	160	2.67	5.9	1.54	0.26	1.31	1.29	41.39
33	165	2.75	2.0	0.52	0.26	0.44	0.27	8.61
34	170	2.83	1.8	0.47	0.26	0.40	0.22	6.93
35	175	2.92	1.8	0.47	0.26	0.40	0.22	6.93
36	180	3.00	0.6	0.16	0.26	0.13	0.02	0.76

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.42
FLOOD VOLUME (acft)	3.78
FLOOD VOLUME (cuft)	164,736
PEAK FLOW RATE (cfs)	60.72

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 6-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.56
CONSTANT LOSS RATE-in/hr	0.255
LOW LOSS RATE - PERCENT	85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	0.5	0.154	0.26	0.13	0.02	0.74
2	10	0.17	0.6	0.184	0.26	0.16	0.03	0.89
3	15	0.25	0.6	0.184	0.26	0.16	0.03	0.89
4	20	0.33	0.6	0.184	0.26	0.16	0.03	0.89
5	25	0.42	0.6	0.184	0.26	0.16	0.03	0.89
6	30	0.50	0.7	0.215	0.26	0.18	0.03	1.04
7	35	0.58	0.7	0.215	0.26	0.18	0.03	1.04
8	40	0.67	0.7	0.215	0.26	0.18	0.03	1.04
9	45	0.75	0.7	0.215	0.26	0.18	0.03	1.04
10	50	0.83	0.7	0.215	0.26	0.18	0.03	1.04
11	55	0.92	0.7	0.215	0.26	0.18	0.03	1.04
12	60	1.00	0.8	0.246	0.26	0.21	0.04	1.18
13	65	1.08	0.8	0.246	0.26	0.21	0.04	1.18
14	70	1.17	0.8	0.246	0.26	0.21	0.04	1.18
15	75	1.25	0.8	0.246	0.26	0.21	0.04	1.18
16	80	1.33	0.8	0.246	0.26	0.21	0.04	1.18
17	85	1.42	0.8	0.246	0.26	0.21	0.04	1.18
18	90	1.50	0.8	0.246	0.26	0.21	0.04	1.18
19	95	1.58	0.8	0.246	0.26	0.21	0.04	1.18
20	100	1.67	0.8	0.246	0.26	0.21	0.04	1.18
21	105	1.75	0.8	0.246	0.26	0.21	0.04	1.18
22	110	1.83	0.8	0.246	0.26	0.21	0.04	1.18
23	115	1.92	0.8	0.246	0.26	0.21	0.04	1.18
24	120	2.00	0.9	0.276	0.26	0.24	0.02	0.68
25	125	2.08	0.8	0.246	0.26	0.21	0.04	1.18
26	130	2.17	0.9	0.276	0.26	0.24	0.02	0.68
27	135	2.25	0.9	0.276	0.26	0.24	0.02	0.68
28	140	2.33	0.9	0.276	0.26	0.24	0.02	0.68
29	145	2.42	0.9	0.276	0.26	0.24	0.02	0.68
30	150	2.50	0.9	0.276	0.26	0.24	0.02	0.68
31	155	2.58	0.9	0.276	0.26	0.24	0.02	0.68
32	160	2.67	0.9	0.276	0.26	0.24	0.02	0.68
33	165	2.75	1.0	0.307	0.26	0.26	0.05	1.67
34	170	2.83	1.0	0.307	0.26	0.26	0.05	1.67
35	175	2.92	1.0	0.307	0.26	0.26	0.05	1.67
36	180	3.00	1.0	0.307	0.26	0.26	0.05	1.67
37	185	3.08	1.0	0.307	0.26	0.26	0.05	1.67
38	190	3.17	1.1	0.338	0.26	0.29	0.08	2.65
39	195	3.25	1.1	0.338	0.26	0.29	0.08	2.65
40	200	3.33	1.1	0.338	0.26	0.29	0.08	2.65
41	205	3.42	1.2	0.369	0.26	0.31	0.11	3.64
42	210	3.50	1.3	0.399	0.26	0.34	0.14	4.63
43	215	3.58	1.4	0.430	0.26	0.37	0.17	5.61
44	220	3.67	1.4	0.430	0.26	0.37	0.17	5.61
45	225	3.75	1.5	0.461	0.26	0.39	0.21	6.60
46	230	3.83	1.5	0.461	0.26	0.39	0.21	6.60
47	235	3.92	1.6	0.492	0.26	0.42	0.24	7.59
48	240	4.00	1.6	0.492	0.26	0.42	0.24	7.59
49	245	4.08	1.7	0.522	0.26	0.44	0.27	8.58
50	250	4.17	1.8	0.553	0.26	0.47	0.30	9.56

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 6-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.56
CONSTANT LOSS RATE-in/hr	0.255
LOW LOSS RATE - PERCENT	85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
51	255	4.25	1.9	0.584	0.26	0.50	0.33	10.55
52	260	4.33	2.0	0.614	0.26	0.52	0.36	11.54
53	265	4.42	2.1	0.645	0.26	0.55	0.39	12.52
54	270	4.50	2.1	0.645	0.26	0.55	0.39	12.52
55	275	4.58	2.2	0.676	0.26	0.57	0.42	13.51
56	280	4.67	2.3	0.707	0.26	0.60	0.45	14.50
57	285	4.75	2.4	0.737	0.26	0.63	0.48	15.49
58	290	4.83	2.4	0.737	0.26	0.63	0.48	15.49
59	295	4.92	2.5	0.768	0.26	0.65	0.51	16.47
60	300	5.00	2.6	0.799	0.26	0.68	0.54	17.46
61	305	5.08	3.1	0.952	0.26	0.81	0.70	22.40
62	310	5.17	3.6	1.106	0.26	0.94	0.85	27.33
63	315	5.25	3.9	1.198	0.26	1.02	0.94	30.29
64	320	5.33	4.2	1.290	0.26	1.10	1.03	33.25
65	325	5.42	4.7	1.444	0.26	1.23	1.19	38.19
66	330	5.50	5.6	1.720	0.26	1.46	1.46	**47.07**
67	335	5.58	1.9	0.584	0.26	0.50	0.33	10.55
68	340	5.67	0.9	0.276	0.26	0.24	0.02	0.68
69	345	5.75	0.6	0.184	0.26	0.16	0.03	0.89
70	350	5.83	0.5	0.154	0.26	0.13	0.02	0.74
71	355	5.92	0.3	0.092	0.26	0.08	0.01	0.44
72	360	6.00	0.2	0.061	0.26	0.05	0.01	0.30

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.21
FLOOD VOLUME (acft)	3.21
FLOOD VOLUME (cuft)	139,747
PEAK FLOW RATE (cfs)	47.07

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 24-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE: BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.868	CONSTANT LOSS RATE-in/hr	n/a
UNIT TIME-MINUTES	15	VARIABLE LOSS RATE (AVG) in/hr	0.2554
LAG TIME - MINUTES	9.75	MINIMUM LOSS RATE (for var. loss) - in/hr	0.128
UNIT TIME-PERCENT OF LAG	153.8	LOW LOSS RATE - DECIMAL	0.85
TOTAL ADJUSTED STORM RAIN-INCHES	3.90	C	0.00236

Unit Time Period	Time		Pattern Percent	Storm Rain in/hr	Loss Rate in/hr		Effective Rain in/hr	Flood Hydrograph Flow cfs
	Minutes	Hours	(Plate E-5.9)		Max	Low		
1	15	0.25	0.2	0.031	0.451	0.027	0.005	0.15
2	30	0.50	0.3	0.047	0.446	0.040	0.007	0.23
3	45	0.75	0.3	0.047	0.441	0.040	0.007	0.23
4	60	1.00	0.4	0.062	0.435	0.053	0.009	0.30
5	75	1.25	0.3	0.047	0.430	0.040	0.007	0.23
6	90	1.50	0.3	0.047	0.425	0.040	0.007	0.23
7	105	1.75	0.3	0.047	0.420	0.040	0.007	0.23
8	120	2.00	0.4	0.062	0.415	0.053	0.009	0.30
9	135	2.25	0.4	0.062	0.410	0.053	0.009	0.30
10	150	2.50	0.4	0.062	0.405	0.053	0.009	0.30
11	165	2.75	0.5	0.078	0.400	0.066	0.012	0.38
12	180	3.00	0.5	0.078	0.395	0.066	0.012	0.38
13	195	3.25	0.5	0.078	0.390	0.066	0.012	0.38
14	210	3.50	0.5	0.078	0.385	0.066	0.012	0.38
15	225	3.75	0.5	0.078	0.381	0.066	0.012	0.38
16	240	4.00	0.6	0.094	0.376	0.080	0.014	0.45
17	255	4.25	0.6	0.094	0.371	0.080	0.014	0.45
18	270	4.50	0.7	0.109	0.366	0.093	0.016	0.53
19	285	4.75	0.7	0.109	0.362	0.093	0.016	0.53
20	300	5.00	0.8	0.125	0.357	0.106	0.019	0.60
21	315	5.25	0.6	0.094	0.352	0.080	0.014	0.45
22	330	5.50	0.7	0.109	0.348	0.093	0.016	0.53
23	345	5.75	0.8	0.125	0.343	0.106	0.019	0.60
24	360	6.00	0.8	0.125	0.339	0.106	0.019	0.60
25	375	6.25	0.9	0.140	0.334	0.119	0.021	0.68
26	390	6.50	0.9	0.140	0.330	0.119	0.021	0.68
27	405	6.75	1.0	0.156	0.325	0.133	0.023	0.75
28	420	7.00	1.0	0.156	0.321	0.133	0.023	0.75
29	435	7.25	1.0	0.156	0.316	0.133	0.023	0.75
30	450	7.50	1.1	0.172	0.312	0.146	0.026	0.83
31	465	7.75	1.2	0.187	0.308	0.159	0.028	0.90
32	480	8.00	1.3	0.203	0.304	0.172	0.030	0.98
33	495	8.25	1.5	0.234	0.299	0.199	0.035	1.13
34	510	8.50	1.5	0.234	0.295	0.199	0.035	1.13
35	525	8.75	1.6	0.250	0.291	0.212	0.037	1.20
36	540	9.00	1.7	0.265	0.287	0.225	0.040	1.28
37	555	9.25	1.9	0.296	0.283	0.252	0.013	0.43
38	570	9.50	2.0	0.312	0.279	0.265	0.033	1.06
39	585	9.75	2.1	0.328	0.275	0.278	0.053	1.69
40	600	10.00	2.2	0.343	0.271	0.292	0.072	2.32
41	615	10.25	1.5	0.234	0.267	0.199	0.035	1.13
42	630	10.50	1.5	0.234	0.263	0.199	0.035	1.13
43	645	10.75	2.0	0.312	0.259	0.265	0.053	1.69
44	660	11.00	2.0	0.312	0.256	0.265	0.056	1.81
45	675	11.25	1.9	0.296	0.252	0.252	0.045	1.43
46	690	11.50	1.9	0.296	0.248	0.252	0.048	1.55
47	705	11.75	1.7	0.265	0.244	0.225	0.021	0.67
48	720	12.00	1.8	0.281	0.241	0.239	0.040	1.29
49	735	12.25	2.5	0.390	0.237	0.332	0.153	4.91
50	750	12.50	2.6	0.406	0.234	0.345	0.172	5.53
51	765	12.75	2.8	0.437	0.230	0.371	0.207	6.64
52	780	13.00	2.9	0.452	0.227	0.385	0.226	7.25
53	795	13.25	3.4	0.530	0.223	0.451	0.307	9.87
54	810	13.50	3.4	0.530	0.220	0.451	0.311	**9.98**
55	825	13.75	2.3	0.359	0.217	0.305	0.142	4.57
56	840	14.00	2.3	0.359	0.213	0.305	0.146	4.68
57	855	14.25	2.7	0.421	0.210	0.358	0.211	6.79
58	870	14.50	2.6	0.406	0.207	0.345	0.199	6.39
59	885	14.75	2.6	0.406	0.204	0.345	0.202	6.49
60	900	15.00	2.5	0.390	0.200	0.332	0.190	6.09
61	915	15.25	2.4	0.374	0.197	0.318	0.177	5.69

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD UNDEVELOPED CONDITION 24-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE: BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.868	CONSTANT LOSS RATE-in/hr	n/a
UNIT TIME-MINUTES	15	VARIABLE LOSS RATE (AVG) in/hr	0.2554
LAG TIME - MINUTES	9.75	MINIMUM LOSS RATE (for var. loss) - in/hr	0.128
UNIT TIME-PERCENT OF LAG	153.8	LOW LOSS RATE - DECIMAL	0.85
TOTAL ADJUSTED STORM RAIN-INCHES	3.90	C	0.00236

Unit Time Period	Time		Pattern Percent	Storm Rain in/hr	Loss Rate in/hr		Effective Rain in/hr	Flood Hydrograph Flow cfs
	Minutes	Hours	(Plate E-5.9)		Max	Low		
62	930	15.50	2.3	0.359	0.194	0.305	0.164	5.28
63	945	15.75	1.9	0.296	0.191	0.252	0.105	3.37
64	960	16.00	1.9	0.296	0.188	0.252	0.108	3.47
65	975	16.25	0.4	0.062	0.186	0.053	0.009	0.30
66	990	16.50	0.4	0.062	0.183	0.053	0.009	0.30
67	1005	16.75	0.3	0.047	0.180	0.040	0.007	0.23
68	1020	17.00	0.3	0.047	0.177	0.040	0.007	0.23
69	1035	17.25	0.5	0.078	0.175	0.066	0.012	0.38
70	1050	17.50	0.5	0.078	0.172	0.066	0.012	0.38
71	1065	17.75	0.5	0.078	0.169	0.066	0.012	0.38
72	1080	18.00	0.4	0.062	0.167	0.053	0.009	0.30
73	1095	18.25	0.4	0.062	0.164	0.053	0.009	0.30
74	1110	18.50	0.4	0.062	0.162	0.053	0.009	0.30
75	1125	18.75	0.3	0.047	0.160	0.040	0.007	0.23
76	1140	19.00	0.2	0.031	0.157	0.027	0.005	0.15
77	1155	19.25	0.3	0.047	0.155	0.040	0.007	0.23
78	1170	19.50	0.4	0.062	0.153	0.053	0.009	0.30
79	1185	19.75	0.3	0.047	0.151	0.040	0.007	0.23
80	1200	20.00	0.2	0.031	0.149	0.027	0.005	0.15
81	1215	20.25	0.3	0.047	0.147	0.040	0.007	0.23
82	1230	20.50	0.3	0.047	0.145	0.040	0.007	0.23
83	1245	20.75	0.3	0.047	0.143	0.040	0.007	0.23
84	1260	21.00	0.2	0.031	0.142	0.027	0.005	0.15
85	1275	21.25	0.3	0.047	0.140	0.040	0.007	0.23
86	1290	21.50	0.2	0.031	0.138	0.027	0.005	0.15
87	1305	21.75	0.3	0.047	0.137	0.040	0.007	0.23
88	1320	22.00	0.2	0.031	0.135	0.027	0.005	0.15
89	1335	22.25	0.3	0.047	0.134	0.040	0.007	0.23
90	1350	22.50	0.2	0.031	0.133	0.027	0.005	0.15
91	1365	22.75	0.2	0.031	0.132	0.027	0.005	0.15
92	1380	23.00	0.2	0.031	0.131	0.027	0.005	0.15
93	1395	23.25	0.2	0.031	0.130	0.027	0.005	0.15
94	1410	23.50	0.2	0.031	0.129	0.027	0.005	0.15
95	1425	23.75	0.2	0.031	0.128	0.027	0.005	0.15
96	1440	24.00	0.2	0.031	0.128	0.027	0.005	0.15

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.09
FLOOD VOLUME (acft)	2.90
FLOOD VOLUME (cuft)	126,523
PEAK FLOW (cfs)	9.98

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD BASIC DATA CALCULATION FORM AMC II	PROJECT:	EDELWEISS SUBSTAIN DARM		
		Job No.:	2626		
		BY:	FOS	DATE:	3/25/22

AVERAGE ADJUSTED LOSS RATE - DEVELOPED CONDITIONS

SOIL GROUP [Plate C-1]	LAND USE	RI NUMBER [Plate E-6.1]	PERVIOUS AREA INFILTRATION RATE (in/hr) [Plate E-6.2]	DECIMAL PERCENT OF AREA IMPERVIOUS [Plate E-6.3]	ADJUSTED INFILTRATION RATE (in/hr)	AREA	AREA WEIGHTED AVERAGE	MAX AVERAGE ADJUSTED INFILTRATION RATE (in/hr)	LOW LOSS CONDITION	LOW LOSS RATE PER RCFC/2322 (in/hr)	MIN AVERAGE ADJUSTED INFILTRATION RATE (in/hr)
C	COMMERCIAL	69	0.39	90%	0.07	26.132	0.820	0.0608	DEVELOPED	0.1800	0.1476
D	COMMERCIAL	75	0.30	90%	0.06	5.736	0.180	0.0103	DEVELOPED	0.1800	0.0324
					SUM	31.868	SUM	0.0710			0.1800

VARIABLE LOSS RATE CURVE (24-HOUR STORM ONLY)

Fm= 0.035511

C= 0.00066

Ft=C(24-(T/60))^1.55 = 0.00066 (24-(T/60))^1.55 + **0.04** in/hr

CONSTANT LOSS RATE (3 & 6 HOUR STORMS) = **0.0710** in/hr

LOW LOSS RATE = **0.8500** in/hr

Where:

T=Time in minutes. To get an average value for each unit time period, Use T=1/2 the unit time for the first time period, T=1 1/2 unit time for the second period, etc.

NOTE: Low loss rates established per RCFC/2322 (Dated: May-30-95)
For Storms Less than the 100 Year Event
Undeveloped Condition: Low Loss = 90%
Developed Condition: Low Loss = 0.9 - (0.8 * %impervious)
Basin Site: Low Loss = 10%
For 100 Year Storm - Low Loss should be between 80% & 90% of the Rainfall Rate

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITIONS 1-HOUR STORM	PROJECT: Job No.: BY:	EDELWEISS SUBSTAIN DARM 2626 DATE FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	
UNIT TIME-MINUTES	5	
LAG TIME - MINUTES	9.75	
UNIT TIME-PERCENT OF LAG	51.3	
TOTAL ADJUSTED STORM RAIN-INCHES	1.58	
CONSTANT LOSS RATE-in/hr		0.07
LOW LOSS RATE - PERCENT		85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	3.6	0.68	0.07	0.58	0.61	19.65
2	10	0.17	4.2	0.80	0.07	0.68	0.73	23.31
3	15	0.25	4.4	0.83	0.07	0.71	0.76	24.52
4	20	0.33	4.6	0.87	0.07	0.74	0.80	25.74
5	25	0.42	5.0	0.95	0.07	0.81	0.88	28.18
6	30	0.50	5.6	1.06	0.07	0.90	0.99	31.84
7	35	0.58	6.4	1.21	0.07	1.03	1.14	36.71
8	40	0.67	8.1	1.54	0.07	1.31	1.46	47.07
9	45	0.75	13.1	2.48	0.07	2.11	2.41	77.53
10	50	0.83	34.5	6.54	0.07	5.56	6.47	**207.91**
11	55	0.92	6.7	1.27	0.07	1.08	1.20	38.54
12	60	1.00	3.8	0.72	0.07	0.61	0.65	20.87

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.51
FLOOD VOLUME (acft)	4.01
FLOOD VOLUME (cuft)	174,559
PEAK FLOW RATE (cfs)	207.91

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITIONS 3-HOUR STORM	PROJECT: Job No.: BY:	EDELWEISS SUBSTAIN DARM 2626 DATE FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	
UNIT TIME-MINUTES	5	
LAG TIME - MINUTES	6.50	
UNIT TIME-PERCENT OF LAG	76.9	
TOTAL ADJUSTED STORM RAIN-INCHES	2.18	
CONSTANT LOSS RATE-in/hr		0.07
LOW LOSS RATE - PERCENT		85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	1.3	0.34	0.07	0.29	0.27	8.65
2	10	0.17	1.3	0.34	0.07	0.29	0.27	8.65
3	15	0.25	1.1	0.29	0.07	0.24	0.22	6.96
4	20	0.33	1.5	0.39	0.07	0.33	0.32	10.33
5	25	0.42	1.5	0.39	0.07	0.33	0.32	10.33
6	30	0.50	1.8	0.47	0.07	0.40	0.40	12.85
7	35	0.58	1.5	0.39	0.07	0.33	0.32	10.33
8	40	0.67	1.8	0.47	0.07	0.40	0.40	12.85
9	45	0.75	1.8	0.47	0.07	0.40	0.40	12.85
10	50	0.83	1.5	0.39	0.07	0.33	0.32	10.33
11	55	0.92	1.6	0.42	0.07	0.36	0.35	11.17
12	60	1.00	1.8	0.47	0.07	0.40	0.40	12.85
13	65	1.08	2.2	0.58	0.07	0.49	0.50	16.21
14	70	1.17	2.2	0.58	0.07	0.49	0.50	16.21
15	75	1.25	2.2	0.58	0.07	0.49	0.50	16.21
16	80	1.33	2.0	0.52	0.07	0.44	0.45	14.53
17	85	1.42	2.6	0.68	0.07	0.58	0.61	19.57
18	90	1.50	2.7	0.71	0.07	0.60	0.64	20.41
19	95	1.58	2.4	0.63	0.07	0.53	0.56	17.89
20	100	1.67	2.7	0.71	0.07	0.60	0.64	20.41
21	105	1.75	3.3	0.86	0.07	0.73	0.79	25.46
22	110	1.83	3.1	0.81	0.07	0.69	0.74	23.78
23	115	1.92	2.9	0.76	0.07	0.64	0.69	22.10
24	120	2.00	3.0	0.78	0.07	0.67	0.71	22.94
25	125	2.08	3.1	0.81	0.07	0.69	0.74	23.78
26	130	2.17	4.2	1.10	0.07	0.93	1.03	33.02
27	135	2.25	5.0	1.31	0.07	1.11	1.24	39.75
28	140	2.33	3.5	0.92	0.07	0.78	0.84	27.14
29	145	2.42	6.8	1.78	0.07	1.51	1.71	54.88
30	150	2.50	7.3	1.91	0.07	1.62	1.84	59.08
31	155	2.58	8.2	2.15	0.07	1.82	2.07	**66.65**
32	160	2.67	5.9	1.54	0.07	1.31	1.47	47.31
33	165	2.75	2.0	0.52	0.07	0.44	0.45	14.53
34	170	2.83	1.8	0.47	0.07	0.40	0.40	12.85
35	175	2.92	1.8	0.47	0.07	0.40	0.40	12.85
36	180	3.00	0.6	0.16	0.07	0.13	0.09	2.76

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	1.97
FLOOD VOLUME (acft)	5.22
FLOOD VOLUME (cuft)	227,536
PEAK FLOW RATE (cfs)	66.65

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITIONS 6-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	6.50
UNIT TIME-PERCENT OF LAG	76.9
TOTAL ADJUSTED STORM RAIN-INCHES	2.56
CONSTANT LOSS RATE-in/hr	0.071
LOW LOSS RATE - PERCENT	85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
1	5	0.08	0.5	0.154	0.07	0.13	0.08	2.65
2	10	0.17	0.6	0.184	0.07	0.16	0.11	3.64
3	15	0.25	0.6	0.184	0.07	0.16	0.11	3.64
4	20	0.33	0.6	0.184	0.07	0.16	0.11	3.64
5	25	0.42	0.6	0.184	0.07	0.16	0.11	3.64
6	30	0.50	0.7	0.215	0.07	0.18	0.14	4.63
7	35	0.58	0.7	0.215	0.07	0.18	0.14	4.63
8	40	0.67	0.7	0.215	0.07	0.18	0.14	4.63
9	45	0.75	0.7	0.215	0.07	0.18	0.14	4.63
10	50	0.83	0.7	0.215	0.07	0.18	0.14	4.63
11	55	0.92	0.7	0.215	0.07	0.18	0.14	4.63
12	60	1.00	0.8	0.246	0.07	0.21	0.17	5.61
13	65	1.08	0.8	0.246	0.07	0.21	0.17	5.61
14	70	1.17	0.8	0.246	0.07	0.21	0.17	5.61
15	75	1.25	0.8	0.246	0.07	0.21	0.17	5.61
16	80	1.33	0.8	0.246	0.07	0.21	0.17	5.61
17	85	1.42	0.8	0.246	0.07	0.21	0.17	5.61
18	90	1.50	0.8	0.246	0.07	0.21	0.17	5.61
19	95	1.58	0.8	0.246	0.07	0.21	0.17	5.61
20	100	1.67	0.8	0.246	0.07	0.21	0.17	5.61
21	105	1.75	0.8	0.246	0.07	0.21	0.17	5.61
22	110	1.83	0.8	0.246	0.07	0.21	0.17	5.61
23	115	1.92	0.8	0.246	0.07	0.21	0.17	5.61
24	120	2.00	0.9	0.276	0.07	0.24	0.21	6.60
25	125	2.08	0.8	0.246	0.07	0.21	0.17	5.61
26	130	2.17	0.9	0.276	0.07	0.24	0.21	6.60
27	135	2.25	0.9	0.276	0.07	0.24	0.21	6.60
28	140	2.33	0.9	0.276	0.07	0.24	0.21	6.60
29	145	2.42	0.9	0.276	0.07	0.24	0.21	6.60
30	150	2.50	0.9	0.276	0.07	0.24	0.21	6.60
31	155	2.58	0.9	0.276	0.07	0.24	0.21	6.60
32	160	2.67	0.9	0.276	0.07	0.24	0.21	6.60
33	165	2.75	1.0	0.307	0.07	0.26	0.24	7.59
34	170	2.83	1.0	0.307	0.07	0.26	0.24	7.59
35	175	2.92	1.0	0.307	0.07	0.26	0.24	7.59
36	180	3.00	1.0	0.307	0.07	0.26	0.24	7.59
37	185	3.08	1.0	0.307	0.07	0.26	0.24	7.59
38	190	3.17	1.1	0.338	0.07	0.29	0.27	8.58
39	195	3.25	1.1	0.338	0.07	0.29	0.27	8.58
40	200	3.33	1.1	0.338	0.07	0.29	0.27	8.58
41	205	3.42	1.2	0.369	0.07	0.31	0.30	9.56
42	210	3.50	1.3	0.399	0.07	0.34	0.33	10.55
43	215	3.58	1.4	0.430	0.07	0.37	0.36	11.54
44	220	3.67	1.4	0.430	0.07	0.37	0.36	11.54
45	225	3.75	1.5	0.461	0.07	0.39	0.39	12.52
46	230	3.83	1.5	0.461	0.07	0.39	0.39	12.52
47	235	3.92	1.6	0.492	0.07	0.42	0.42	13.51
48	240	4.00	1.6	0.492	0.07	0.42	0.42	13.51
49	245	4.08	1.7	0.522	0.07	0.44	0.45	14.50
50	250	4.17	1.8	0.553	0.07	0.47	0.48	15.49

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITIONS 6-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	6.50
UNIT TIME-PERCENT OF LAG	76.9
TOTAL ADJUSTED STORM RAIN-INCHES	2.56
CONSTANT LOSS RATE-in/hr	0.071
LOW LOSS RATE - PERCENT	85%

Unit Time Period	Time Minutes	Time Hours	Pattern Percent (Plate E-5.9)	Storm Rain in/hr	Loss Rate in/hr Max	Loss Rate in/hr Low	Effective Rain in/hr	Flood Hydrograph Flow cfs
51	255	4.25	1.9	0.584	0.07	0.50	0.51	16.47
52	260	4.33	2.0	0.614	0.07	0.52	0.54	17.46
53	265	4.42	2.1	0.645	0.07	0.55	0.57	18.45
54	270	4.50	2.1	0.645	0.07	0.55	0.57	18.45
55	275	4.58	2.2	0.676	0.07	0.57	0.60	19.43
56	280	4.67	2.3	0.707	0.07	0.60	0.64	20.42
57	285	4.75	2.4	0.737	0.07	0.63	0.67	21.41
58	290	4.83	2.4	0.737	0.07	0.63	0.67	21.41
59	295	4.92	2.5	0.768	0.07	0.65	0.70	22.40
60	300	5.00	2.6	0.799	0.07	0.68	0.73	23.38
61	305	5.08	3.1	0.952	0.07	0.81	0.88	28.32
62	310	5.17	3.6	1.106	0.07	0.94	1.03	33.25
63	315	5.25	3.9	1.198	0.07	1.02	1.13	36.22
64	320	5.33	4.2	1.290	0.07	1.10	1.22	39.18
65	325	5.42	4.7	1.444	0.07	1.23	1.37	44.11
66	330	5.50	5.6	1.720	0.07	1.46	1.65	**53.00**
67	335	5.58	1.9	0.584	0.07	0.50	0.51	16.47
68	340	5.67	0.9	0.276	0.07	0.24	0.21	6.60
69	345	5.75	0.6	0.184	0.07	0.16	0.11	3.64
70	350	5.83	0.5	0.154	0.07	0.13	0.08	2.65
71	355	5.92	0.3	0.092	0.07	0.08	0.02	0.68
72	360	6.00	0.2	0.061	0.07	0.05	0.01	0.30

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	2.14
FLOOD VOLUME (acft)	5.67
FLOOD VOLUME (cuft)	247,028
PEAK FLOW RATE (cfs)	53.00

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITION 24-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE: BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	CONSTANT LOSS RATE-in/hr	n/a
UNIT TIME-MINUTES	15	VARIABLE LOSS RATE (AVG) in/hr	0.0710
LAG TIME - MINUTES	6.50	MINIMUM LOSS RATE (for var. loss) - in/hr	0.036
UNIT TIME-PERCENT OF LAG	230.7	LOW LOSS RATE - DECIMAL	0.85
TOTAL ADJUSTED STORM RAIN-INCHES	3.90	C	0.00066

Unit Time Period	Time		Pattern Percent	Storm Rain in/hr	Loss Rate in/hr		Effective Rain in/hr	Flood Hydrograph Flow cfs
	Minutes	Hours	(Plate E-5.9)		Max	Low		
1	15	0.25	0.2	0.031	0.125	0.027	0.005	0.15
2	30	0.50	0.3	0.047	0.124	0.040	0.007	0.23
3	45	0.75	0.3	0.047	0.123	0.040	0.007	0.23
4	60	1.00	0.4	0.062	0.121	0.053	0.009	0.30
5	75	1.25	0.3	0.047	0.120	0.040	0.007	0.23
6	90	1.50	0.3	0.047	0.118	0.040	0.007	0.23
7	105	1.75	0.3	0.047	0.117	0.040	0.007	0.23
8	120	2.00	0.4	0.062	0.115	0.053	0.009	0.30
9	135	2.25	0.4	0.062	0.114	0.053	0.009	0.30
10	150	2.50	0.4	0.062	0.113	0.053	0.009	0.30
11	165	2.75	0.5	0.078	0.111	0.066	0.012	0.38
12	180	3.00	0.5	0.078	0.110	0.066	0.012	0.38
13	195	3.25	0.5	0.078	0.109	0.066	0.012	0.38
14	210	3.50	0.5	0.078	0.107	0.066	0.012	0.38
15	225	3.75	0.5	0.078	0.106	0.066	0.012	0.38
16	240	4.00	0.6	0.094	0.104	0.080	0.014	0.45
17	255	4.25	0.6	0.094	0.103	0.080	0.014	0.45
18	270	4.50	0.7	0.109	0.102	0.093	0.007	0.24
19	285	4.75	0.7	0.109	0.101	0.093	0.009	0.28
20	300	5.00	0.8	0.125	0.099	0.106	0.026	0.82
21	315	5.25	0.6	0.094	0.098	0.080	0.014	0.45
22	330	5.50	0.7	0.109	0.097	0.093	0.013	0.40
23	345	5.75	0.8	0.125	0.095	0.106	0.029	0.94
24	360	6.00	0.8	0.125	0.094	0.106	0.031	0.98
25	375	6.25	0.9	0.140	0.093	0.119	0.047	1.53
26	390	6.50	0.9	0.140	0.092	0.119	0.049	1.57
27	405	6.75	1.0	0.156	0.090	0.133	0.066	2.11
28	420	7.00	1.0	0.156	0.089	0.133	0.067	2.15
29	435	7.25	1.0	0.156	0.088	0.133	0.068	2.18
30	450	7.50	1.1	0.172	0.087	0.146	0.085	2.72
31	465	7.75	1.2	0.187	0.086	0.159	0.102	3.26
32	480	8.00	1.3	0.203	0.084	0.172	0.118	3.80
33	495	8.25	1.5	0.234	0.083	0.199	0.151	4.84
34	510	8.50	1.5	0.234	0.082	0.199	0.152	4.88
35	525	8.75	1.6	0.250	0.081	0.212	0.169	5.42
36	540	9.00	1.7	0.265	0.080	0.225	0.185	5.96
37	555	9.25	1.9	0.296	0.079	0.252	0.218	7.00
38	570	9.50	2.0	0.312	0.078	0.265	0.234	7.53
39	585	9.75	2.1	0.328	0.076	0.278	0.251	8.07
40	600	10.00	2.2	0.343	0.075	0.292	0.268	8.61
41	615	10.25	1.5	0.234	0.074	0.199	0.160	5.13
42	630	10.50	1.5	0.234	0.073	0.199	0.161	5.17
43	645	10.75	2.0	0.312	0.072	0.265	0.240	7.71
44	660	11.00	2.0	0.312	0.071	0.265	0.241	7.74
45	675	11.25	1.9	0.296	0.070	0.252	0.226	7.27
46	690	11.50	1.9	0.296	0.069	0.252	0.227	7.31
47	705	11.75	1.7	0.265	0.068	0.225	0.197	6.34
48	720	12.00	1.8	0.281	0.067	0.239	0.214	6.87
49	735	12.25	2.5	0.390	0.066	0.332	0.324	10.41
50	750	12.50	2.6	0.406	0.065	0.345	0.341	10.95
51	765	12.75	2.8	0.437	0.064	0.371	0.373	11.98
52	780	13.00	2.9	0.452	0.063	0.385	0.389	12.51
53	795	13.25	3.4	0.530	0.062	0.451	0.468	15.05
54	810	13.50	3.4	0.530	0.061	0.451	0.469	**15.08**
55	825	13.75	2.3	0.359	0.060	0.305	0.299	9.59
56	840	14.00	2.3	0.359	0.059	0.305	0.300	9.62
57	855	14.25	2.7	0.421	0.058	0.358	0.363	11.66
58	870	14.50	2.6	0.406	0.058	0.345	0.348	11.19
59	885	14.75	2.6	0.406	0.057	0.345	0.349	11.21
60	900	15.00	2.5	0.390	0.056	0.332	0.334	10.74
61	915	15.25	2.4	0.374	0.055	0.318	0.319	10.27

RCFC & WCD HYDROLOGY MANUAL	SYNTHETIC UNIT HYDROGRAPH METHOD SHORTCUT METHOD DEVELOPED CONDITION 24-HOUR STORM	PROJECT: EDELWEISS SUBSTAIN DARM Job No.: 2626 DATE: BY: FOS 3/25/22

UNIT HYDROGRAPH and EFFECTIVE RAIN CALCULATION FORM

DRAINAGE AREA-ACRES	31.87	CONSTANT LOSS RATE-in/hr	n/a
UNIT TIME-MINUTES	15	VARIABLE LOSS RATE (AVG) in/hr	0.0710
LAG TIME - MINUTES	6.50	MINIMUM LOSS RATE (for var. loss) - in/hr	0.036
UNIT TIME-PERCENT OF LAG	230.7	LOW LOSS RATE - DECIMAL	0.85
TOTAL ADJUSTED STORM RAIN-INCHES	3.90	C	0.00066

Unit Time Period	Time		Pattern Percent	Storm Rain in/hr	Loss Rate in/hr		Effective Rain in/hr	Flood Hydrograph Flow cfs
	Minutes	Hours	(Plate E-5.9)		Max	Low		
62	930	15.50	2.3	0.359	0.054	0.305	0.305	9.79
63	945	15.75	1.9	0.296	0.053	0.252	0.243	7.81
64	960	16.00	1.9	0.296	0.052	0.252	0.244	7.84
65	975	16.25	0.4	0.062	0.052	0.053	0.011	0.35
66	990	16.50	0.4	0.062	0.051	0.053	0.012	0.37
67	1005	16.75	0.3	0.047	0.050	0.040	0.007	0.23
68	1020	17.00	0.3	0.047	0.049	0.040	0.007	0.23
69	1035	17.25	0.5	0.078	0.049	0.066	0.029	0.95
70	1050	17.50	0.5	0.078	0.048	0.066	0.030	0.97
71	1065	17.75	0.5	0.078	0.047	0.066	0.031	0.99
72	1080	18.00	0.4	0.062	0.046	0.053	0.016	0.51
73	1095	18.25	0.4	0.062	0.046	0.053	0.017	0.54
74	1110	18.50	0.4	0.062	0.045	0.053	0.017	0.56
75	1125	18.75	0.3	0.047	0.044	0.040	0.002	0.08
76	1140	19.00	0.2	0.031	0.044	0.027	0.005	0.15
77	1155	19.25	0.3	0.047	0.043	0.040	0.004	0.12
78	1170	19.50	0.4	0.062	0.043	0.053	0.020	0.64
79	1185	19.75	0.3	0.047	0.042	0.040	0.005	0.15
80	1200	20.00	0.2	0.031	0.041	0.027	0.005	0.15
81	1215	20.25	0.3	0.047	0.041	0.040	0.006	0.19
82	1230	20.50	0.3	0.047	0.040	0.040	0.006	0.21
83	1245	20.75	0.3	0.047	0.040	0.040	0.007	0.22
84	1260	21.00	0.2	0.031	0.039	0.027	0.005	0.15
85	1275	21.25	0.3	0.047	0.039	0.040	0.008	0.25
86	1290	21.50	0.2	0.031	0.038	0.027	0.005	0.15
87	1305	21.75	0.3	0.047	0.038	0.040	0.009	0.28
88	1320	22.00	0.2	0.031	0.038	0.027	0.005	0.15
89	1335	22.25	0.3	0.047	0.037	0.040	0.010	0.31
90	1350	22.50	0.2	0.031	0.037	0.027	0.005	0.15
91	1365	22.75	0.2	0.031	0.037	0.027	0.005	0.15
92	1380	23.00	0.2	0.031	0.036	0.027	0.005	0.15
93	1395	23.25	0.2	0.031	0.036	0.027	0.005	0.15
94	1410	23.50	0.2	0.031	0.036	0.027	0.005	0.15
95	1425	23.75	0.2	0.031	0.036	0.027	0.005	0.15
96	1440	24.00	0.2	0.031	0.036	0.027	0.005	0.15

EFFECTIVE RAIN & FLOOD VOLUMES SUMMARY

EFFECTIVE RAIN (in)	2.49
FLOOD VOLUME (acft)	6.62
FLOOD VOLUME (cuft)	288,165
PEAK FLOW (cfs)	15.08

RCFC & WCD
HYDROLOGY MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD
SHORTCUT METHOD
DEVELOPED CONDITIONS BASIN STAGE STORAGE - 1 HOUR STORM

PROJECT:	EDELWEISS SUBSTAIN DARM
DRAINAGE AREA	DA-A
CONCENTRATION POINT	RETENTION BASINS
BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	1.58

Unit Time Period	Time Minutes	Hours	Effective Rain in/hr	Flood Hydrograph Flow cfs	Volume In cu-ft	Basin Volume cu-ft	Basin Losses Percolation Area sf	Basin Losses Maximum Percolation cu-ft	Basin Losses Percolation Out cu-ft	Total in Basin cu-ft	Total in Basin ac-ft	Basin WSEL ft	Basin Outflow Volume Out cu-ft	Basin Outflow Flow Out cfs
1	5	0.08	0.61	19.65	5,895	5,895	44,156	276	276	5,619	0.13	261.12	0	0.00
2	10	0.17	0.73	23.31	6,992	12,611	44,946	281	281	12,330	0.28	261.27	0	0.00
3	15	0.25	0.76	24.52	7,357	19,688	45,778	286	286	19,402	0.45	261.42	0	0.00
4	20	0.33	0.80	25.74	7,723	27,125	46,653	292	292	26,833	0.62	261.58	0	0.00
5	25	0.42	0.88	28.18	8,454	35,287	47,613	298	298	34,990	0.80	261.76	0	0.00
6	30	0.50	0.99	31.84	9,551	44,540	48,701	304	304	44,236	1.02	261.96	0	0.00
7	35	0.58	1.14	36.71	11,013	55,249	49,867	312	312	54,937	1.26	262.17	0	0.00
8	40	0.67	1.46	47.07	14,120	69,057	51,349	321	321	68,736	1.58	262.44	0	0.00
9	45	0.75	2.41	77.53	23,259	91,995	53,811	336	336	91,659	2.10	262.88	0	0.00
10	50	0.83	6.47	207.91	62,373	154,032	59,989	375	375	153,657	3.53	263.98	0	0.00
11	55	0.92	1.20	38.54	11,561	155,023	60,087	376	376	154,648	3.55	**263.99**	10,195	33.98
12	60	1.00	0.65	20.87	6,261	155,023	60,087	376	376	154,648	3.55	**263.99**	5,885	19.62

BASIN WORKSHEET SUMMARY

EFFECTIVE RAIN	1.51 in
FLOOD VOLUME	4.01 acft
	174,559 cuft
TOTAL VOLUME RETAINED	158,479 cuft
MAX WSEL	263.99 ft
PEAK FLOW RATE	207.91 cfs
AVERAGE PERCOLATION RATE	63.86 cf/min
TOTAL OUTFLOW	16,080 cuft
	53.60 cfs
MAXIMUM OUTFLOW	10,195 cuft
	33.98 cfs

RCFC & WCD
HYDROLOGY
MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD
SHORTCUT METHOD
DEVELOPED CONDITIONS BASIN STAGE STORAGE - 3 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARN
DRAINAGE AREA DA-A
CONCENTRATION POINT RETENTION BASINS

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.18

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time Minutes	Hours	Effective Rain in/hr	Flood Hydrograph Flow cfs	Volume In cu-ft	Basin Volume cu-ft	Basin Losses Percolation Area sf	Basin Losses Maximum Percolation cu-ft	Basin Losses Percolation Out cu-ft	Total in Basin cu-ft	Total in Basin ac-ft	Basin WSEL ft	Basin Outflow Volume Out cu-ft	Basin Outflow Flow Out cfs
1	5	0.08	0.27	8.6	2,594	2,594	43,767	274	274	2,320	0.05	261.05	0	0.00
2	10	0.17	0.27	8.6	2,594	4,914	44,040	275	275	4,639	0.11	261.10	0	0.00
3	15	0.25	0.22	7.0	2,089	6,728	44,253	277	277	6,451	0.15	261.14	0	0.00
4	20	0.33	0.32	10.3	3,098	9,550	44,585	279	279	9,271	0.21	261.20	0	0.00
5	25	0.42	0.32	10.3	3,098	12,369	44,917	281	281	12,088	0.28	261.26	0	0.00
6	30	0.50	0.40	12.8	3,855	15,943	45,337	283	283	15,660	0.36	261.34	0	0.00
7	35	0.58	0.32	10.3	3,098	18,758	45,669	285	285	18,472	0.42	261.40	0	0.00
8	40	0.67	0.40	12.8	3,855	22,327	46,088	288	288	22,039	0.51	261.48	0	0.00
9	45	0.75	0.40	12.8	3,855	25,893	46,508	291	291	25,603	0.59	261.55	0	0.00
10	50	0.83	0.32	10.3	3,098	28,701	46,838	293	293	28,408	0.65	261.62	0	0.00
11	55	0.92	0.35	11.2	3,350	31,758	47,198	295	295	31,463	0.72	261.68	0	0.00
12	60	1.00	0.40	12.8	3,855	35,318	47,617	298	298	35,020	0.80	261.76	0	0.00
13	65	1.08	0.50	16.2	4,863	39,884	48,154	301	301	39,583	0.91	261.86	0	0.00
14	70	1.17	0.50	16.2	4,863	44,446	48,690	304	304	44,142	1.01	261.96	0	0.00
15	75	1.25	0.50	16.2	4,863	49,005	49,197	307	307	48,698	1.12	262.05	0	0.00
16	80	1.33	0.45	14.5	4,359	53,057	49,632	310	310	52,747	1.21	262.13	0	0.00
17	85	1.42	0.61	19.6	5,872	58,619	50,229	314	314	58,305	1.34	262.24	0	0.00
18	90	1.50	0.64	20.4	6,124	64,429	50,852	318	318	64,111	1.47	262.35	0	0.00
19	95	1.58	0.56	17.9	5,368	69,479	51,394	321	321	69,158	1.59	262.45	0	0.00
20	100	1.67	0.64	20.4	6,124	75,282	52,017	325	325	74,957	1.72	262.56	0	0.00
21	105	1.75	0.79	25.5	7,637	82,595	52,802	330	330	82,264	1.89	262.70	0	0.00
22	110	1.83	0.74	23.8	7,133	89,398	53,532	335	335	89,063	2.04	262.83	0	0.00
23	115	1.92	0.69	22.1	6,629	95,692	54,208	339	339	95,353	2.19	262.95	0	0.00
24	120	2.00	0.71	22.9	6,881	102,234	54,872	343	343	101,891	2.34	263.07	0	0.00
25	125	2.08	0.74	23.8	7,133	109,024	55,543	347	347	108,677	2.49	263.19	0	0.00
26	130	2.17	1.03	33.0	9,907	118,584	56,487	353	353	118,231	2.71	263.36	0	0.00
27	135	2.25	1.24	39.7	11,925	130,155	57,630	360	360	129,795	2.98	263.56	0	0.00
28	140	2.33	0.84	27.1	8,142	137,937	58,399	365	365	137,572	3.16	263.70	0	0.00
29	145	2.42	1.71	54.9	16,464	154,036	59,990	375	375	153,661	3.53	263.98	0	0.00
30	150	2.50	1.84	59.1	17,725	155,023	60,087	376	376	154,648	3.55	**263.99**	16,362	54.54
31	155	2.58	2.07	66.6	19,994	155,023	60,087	376	376	154,648	3.55	**263.99**	19,619	65.40
32	160	2.67	1.47	47.3	14,194	155,023	60,087	376	376	154,648	3.55	**263.99**	13,819	46.06
33	165	2.75	0.45	14.5	4,359	155,023	60,087	376	376	154,648	3.55	**263.99**	3,983	13.28
34	170	2.83	0.40	12.8	3,855	155,023	60,087	376	376	154,648	3.55	**263.99**	3,479	11.60
35	175	2.92	0.40	12.8	3,855	155,023	60,087	376	376	154,648	3.55	**263.99**	3,479	11.60
36	180	3.00	0.09	2.8	828	155,023	60,087	376	376	154,648	3.55	**263.99**	453	1.51

BASIN WORKSHEET SUMMARY

EFFECTIVE RAIN	1.97 in
FLOOD VOLUME	5.22 acft
	227,536 cuft
TOTAL VOLUME RETAINED	166,342 cuft
MAX WSEL	263.99 ft
PEAK FLOW RATE	66.65 cfs
AVERAGE PERCOLATION RATE	64.97 cf/min
TOTAL BASIN OUTFLOW	61,194 cuft
	203.98 cfs
MAXIMUM BASIN OUTFLOW	19,619 cuft
	65.40 cfs

RCFC & WCD
HYDROLOGY MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD
SHORTCUT METHOD
DEVELOPED CONDITION BASIN STAGE STORAGE - 6 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARM

3/25/22

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.56

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
1	5	0.08	0.08	2.65	796	796	43,556	272	272	524	0.01	261.01	0	0.00
2	10	0.17	0.11	3.64	1,092	1,616	43,652	273	273	1,343	0.03	261.03	0	0.00
3	15	0.25	0.11	3.64	1,092	2,435	43,749	273	273	2,162	0.05	261.05	0	0.00
4	20	0.33	0.11	3.64	1,092	3,254	43,845	274	274	2,980	0.07	261.06	0	0.00
5	25	0.42	0.11	3.64	1,092	4,072	43,941	275	275	3,798	0.09	261.08	0	0.00
6	30	0.50	0.14	4.63	1,388	5,186	44,072	275	275	4,911	0.11	261.11	0	0.00
7	35	0.58	0.14	4.63	1,388	6,299	44,203	276	276	6,023	0.14	261.13	0	0.00
8	40	0.67	0.14	4.63	1,388	7,411	44,334	277	277	7,134	0.16	261.15	0	0.00
9	45	0.75	0.14	4.63	1,388	8,522	44,465	278	278	8,244	0.19	261.18	0	0.00
10	50	0.83	0.14	4.63	1,388	9,633	44,595	279	279	9,354	0.21	261.20	0	0.00
11	55	0.92	0.14	4.63	1,388	10,742	44,726	280	280	10,463	0.24	261.23	0	0.00
12	60	1.00	0.17	5.61	1,684	12,147	44,891	281	281	11,867	0.27	261.26	0	0.00
13	65	1.08	0.17	5.61	1,684	13,551	45,056	282	282	13,270	0.30	261.29	0	0.00
14	70	1.17	0.17	5.61	1,684	14,954	45,221	283	283	14,671	0.34	261.32	0	0.00
15	75	1.25	0.17	5.61	1,684	16,356	45,386	284	284	16,072	0.37	261.35	0	0.00
16	80	1.33	0.17	5.61	1,684	17,757	45,551	285	285	17,472	0.40	261.38	0	0.00
17	85	1.42	0.17	5.61	1,684	19,157	45,715	286	286	18,871	0.43	261.41	0	0.00
18	90	1.50	0.17	5.61	1,684	20,555	45,880	287	287	20,269	0.47	261.44	0	0.00
19	95	1.58	0.17	5.61	1,684	21,953	46,044	288	288	21,665	0.50	261.47	0	0.00

RCFC & WCD
HYDROLOGY
MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD

SHORTCUT METHOD

DEVELOPED CONDITION BASIN STAGE STORAGE - 6 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARM

3/25/22

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.56

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
20	100	1.67	0.17	5.61	1,684	23,350	46,209	289	289	23,061	0.53	261.50	0	0.00
21	105	1.75	0.17	5.61	1,684	24,745	46,373	290	290	24,456	0.56	261.53	0	0.00
22	110	1.83	0.17	5.61	1,684	26,140	46,537	291	291	25,849	0.59	261.56	0	0.00
23	115	1.92	0.17	5.61	1,684	27,534	46,701	292	292	27,242	0.63	261.59	0	0.00
24	120	2.00	0.21	6.60	1,981	29,222	46,900	293	293	28,929	0.66	261.63	0	0.00
25	125	2.08	0.17	5.61	1,684	30,614	47,063	294	294	30,320	0.70	261.66	0	0.00
26	130	2.17	0.21	6.60	1,981	32,300	47,262	295	295	32,005	0.73	261.69	0	0.00
27	135	2.25	0.21	6.60	1,981	33,986	47,460	297	297	33,689	0.77	261.73	0	0.00
28	140	2.33	0.21	6.60	1,981	35,670	47,658	298	298	35,372	0.81	261.77	0	0.00
29	145	2.42	0.21	6.60	1,981	37,352	47,856	299	299	37,053	0.85	261.80	0	0.00
30	150	2.50	0.21	6.60	1,981	39,034	48,054	300	300	38,733	0.89	261.84	0	0.00
31	155	2.58	0.21	6.60	1,981	40,714	48,251	302	302	40,413	0.93	261.88	0	0.00
32	160	2.67	0.21	6.60	1,981	42,393	48,449	303	303	42,090	0.97	261.91	0	0.00
33	165	2.75	0.24	7.59	2,277	44,367	48,681	304	304	44,063	1.01	261.95	0	0.00
34	170	2.83	0.24	7.59	2,277	46,340	48,911	306	306	46,034	1.06	262.00	0	0.00
35	175	2.92	0.24	7.59	2,277	48,311	49,123	307	307	48,004	1.10	262.04	0	0.00
36	180	3.00	0.24	7.59	2,277	50,280	49,334	308	308	49,972	1.15	262.07	0	0.00
37	185	3.08	0.24	7.59	2,277	52,249	49,545	310	310	51,939	1.19	262.11	0	0.00
38	190	3.17	0.27	8.58	2,573	54,512	49,788	311	311	54,201	1.24	262.16	0	0.00
39	195	3.25	0.27	8.58	2,573	56,774	50,031	313	313	56,461	1.30	262.20	0	0.00
40	200	3.33	0.27	8.58	2,573	59,034	50,273	314	314	58,720	1.35	262.24	0	0.00
41	205	3.42	0.30	9.56	2,869	61,589	50,548	316	316	61,273	1.41	262.29	0	0.00
42	210	3.50	0.33	10.55	3,165	64,438	50,853	318	318	64,120	1.47	262.35	0	0.00
43	215	3.58	0.36	11.54	3,461	67,582	51,191	320	320	67,262	1.54	262.41	0	0.00
44	220	3.67	0.36	11.54	3,461	70,723	51,528	322	322	70,401	1.62	262.47	0	0.00
45	225	3.75	0.39	12.52	3,757	74,159	51,897	324	324	73,834	1.69	262.54	0	0.00
46	230	3.83	0.39	12.52	3,757	77,592	52,265	327	327	77,265	1.77	262.60	0	0.00
47	235	3.92	0.42	13.51	4,054	81,319	52,665	329	329	80,989	1.86	262.67	0	0.00
48	240	4.00	0.42	13.51	4,054	85,043	53,065	332	332	84,711	1.94	262.75	0	0.00
49	245	4.08	0.45	14.50	4,350	89,061	53,496	334	334	88,727	2.04	262.82	0	0.00
50	250	4.17	0.48	15.49	4,646	93,373	53,959	337	337	93,035	2.14	262.91	0	0.00
51	255	4.25	0.51	16.47	4,942	97,978	54,451	340	340	97,637	2.24	263.00	0	0.00
52	260	4.33	0.54	17.46	5,238	102,875	54,935	343	343	102,532	2.35	263.08	0	0.00
53	265	4.42	0.57	18.45	5,534	108,066	55,448	347	347	107,720	2.47	263.17	0	0.00
54	270	4.50	0.57	18.45	5,534	113,254	55,961	350	350	112,904	2.59	263.26	0	0.00

RCFC & WCD
HYDROLOGY MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD
SHORTCUT METHOD
DEVELOPED CONDITION BASIN STAGE STORAGE - 6 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARM

3/25/22

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	5
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	51.3
TOTAL ADJUSTED STORM RAIN-INCHES	2.56

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
55	275	4.58	0.60	19.43	5,830	118,735	56,502	353	353	118,382	2.72	263.36	0	0.00
56	280	4.67	0.64	20.42	6,127	124,508	57,072	357	357	124,152	2.85	263.46	0	0.00
57	285	4.75	0.67	21.41	6,423	130,574	57,672	360	360	130,214	2.99	263.57	0	0.00
58	290	4.83	0.67	21.41	6,423	136,637	58,271	364	364	136,273	3.13	263.67	0	0.00
59	295	4.92	0.70	22.40	6,719	142,991	58,899	368	368	142,623	3.27	263.78	0	0.00
60	300	5.00	0.73	23.38	7,015	149,638	59,555	372	372	149,266	3.43	263.90	0	0.00
61	305	5.08	0.88	28.32	8,496	155,023	60,087	376	376	154,648	3.55	**263.99**	2,739	9.13
62	310	5.17	1.03	33.25	9,976	155,023	60,087	376	376	154,648	3.55	**263.99**	9,601	32.00
63	315	5.25	1.13	36.22	10,865	155,023	60,087	376	376	154,648	3.55	**263.99**	10,489	34.96
64	320	5.33	1.22	39.18	11,753	155,023	60,087	376	376	154,648	3.55	**263.99**	11,378	37.93
65	325	5.42	1.37	44.11	13,234	155,023	60,087	376	376	154,648	3.55	**263.99**	12,858	42.86
66	330	5.50	1.65	53.00	15,899	155,023	60,087	376	376	154,648	3.55	**263.99**	15,524	51.75
67	335	5.58	0.51	16.47	4,942	155,023	60,087	376	376	154,648	3.55	**263.99**	4,567	15.22
68	340	5.67	0.21	6.60	1,981	155,023	60,087	376	376	154,648	3.55	**263.99**	1,605	5.35
69	345	5.75	0.11	3.64	1,092	155,023	60,087	376	376	154,648	3.55	**263.99**	717	2.39
70	350	5.83	0.08	2.65	796	155,023	60,087	376	376	154,648	3.55	**263.99**	421	1.40
71	355	5.92	0.02	0.68	204	154,851	60,070	375	375	154,476	3.55	263.99	0	0.00
72	360	6.00	0.01	0.30	89	154,565	60,042	375	375	154,189	3.54	263.99	0	0.00

BASIN WORKSHEET SUMMARY

EFFECTIVE RAIN	2.13 in
FLOOD VOLUME	5.65 acft
	246,232 cuft
TOTAL VOLUME RETAINED	176,334 cuft
MAX WSEL	263.99 ft
PEAK FLOW RATE	53.00 cfs
AVERAGE PERCOLATION RATE	63.72 cf/min
TOTAL OUTFLOW	69,898 cuft
	232.99 cfs
MAXIMUM OUTFLOW	15,524 cuft
	51.75 cfs

RCFC & WCD
HYDROLOGY MANUAL

SYNTHETIC UNIT HYDROGRAPH METHOD
SHORTCUT METHOD
DEVELOPED CONDITIONS BASIN STAGE STORAGE - 24 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARM
DRAINAGE AREA DA-A
CONCENTRATION POINT RETENTION BASINS

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	15
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	153.8
TOTAL ADJUSTED STORM RAIN-INCHES	3.90

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
1	15	0.25	0.005	0.2	135	135	43,478	815	135	0	0.00	261.00	0	0.00
2	30	0.50	0.007	0.2	203	203	43,486	815	203	0	0.00	261.00	0	0.00
3	45	0.75	0.007	0.2	203	203	43,486	815	203	0	0.00	261.00	0	0.00
4	60	1.00	0.009	0.3	271	271	43,494	816	271	0	0.00	261.00	0	0.00
5	75	1.25	0.007	0.2	203	203	43,486	815	203	0	0.00	261.00	0	0.00
6	90	1.50	0.007	0.2	203	203	43,486	815	203	0	0.00	261.00	0	0.00
7	105	1.75	0.007	0.2	203	203	43,486	815	203	0	0.00	261.00	0	0.00
8	120	2.00	0.009	0.3	271	271	43,494	816	271	0	0.00	261.00	0	0.00
9	135	2.25	0.009	0.3	271	271	43,494	816	271	0	0.00	261.00	0	0.00
10	150	2.50	0.009	0.3	271	271	43,494	816	271	0	0.00	261.00	0	0.00
11	165	2.75	0.012	0.4	338	338	43,502	816	338	0	0.00	261.00	0	0.00
12	180	3.00	0.012	0.4	338	338	43,502	816	338	0	0.00	261.00	0	0.00
13	195	3.25	0.012	0.4	338	338	43,502	816	338	0	0.00	261.00	0	0.00
14	210	3.50	0.012	0.4	338	338	43,502	816	338	0	0.00	261.00	0	0.00
15	225	3.75	0.012	0.4	338	338	43,502	816	338	0	0.00	261.00	0	0.00
16	240	4.00	0.014	0.5	406	406	43,510	816	406	0	0.00	261.00	0	0.00
17	255	4.25	0.014	0.5	406	406	43,510	816	406	0	0.00	261.00	0	0.00
18	270	4.50	0.007	0.2	212	212	43,487	815	212	0	0.00	261.00	0	0.00
19	285	4.75	0.009	0.3	250	250	43,491	815	250	0	0.00	261.00	0	0.00
20	300	5.00	0.026	0.8	739	739	43,549	817	739	0	0.00	261.00	0	0.00
21	315	5.25	0.014	0.5	406	406	43,510	816	406	0	0.00	261.00	0	0.00
22	330	5.50	0.013	0.4	362	362	43,505	816	362	0	0.00	261.00	0	0.00
23	345	5.75	0.029	0.9	850	850	43,562	817	817	33	0.00	261.00	0	0.00
24	360	6.00	0.031	1.0	886	919	43,570	817	817	102	0.00	261.00	0	0.00
25	375	6.25	0.047	1.5	1,373	1,475	43,636	818	818	657	0.02	261.01	0	0.00
26	390	6.50	0.049	1.6	1,409	2,066	43,705	819	819	1,246	0.03	261.03	0	0.00
27	405	6.75	0.066	2.1	1,896	3,142	43,832	822	822	2,320	0.05	261.05	0	0.00
28	420	7.00	0.067	2.1	1,931	4,252	43,962	824	824	3,427	0.08	261.07	0	0.00
29	435	7.25	0.068	2.2	1,966	5,393	44,096	827	827	4,567	0.10	261.10	0	0.00
30	450	7.50	0.085	2.7	2,452	7,019	44,288	830	830	6,188	0.14	261.13	0	0.00
31	465	7.75	0.102	3.3	2,938	9,126	44,536	835	835	8,291	0.19	261.18	0	0.00
32	480	8.00	0.118	3.8	3,423	11,714	44,840	841	841	10,873	0.25	261.24	0	0.00
33	495	8.25	0.151	4.8	4,359	15,232	45,254	849	849	14,383	0.33	261.31	0	0.00
34	510	8.50	0.152	4.9	4,393	18,776	45,671	856	856	17,920	0.41	261.39	0	0.00
35	525	8.75	0.169	5.4	4,877	22,797	46,144	865	865	21,932	0.50	261.48	0	0.00
36	540	9.00	0.185	6.0	5,361	27,293	46,673	875	875	26,418	0.61	261.57	0	0.00
37	555	9.25	0.218	7.0	6,296	32,714	47,310	887	887	31,827	0.73	261.69	0	0.00
38	570	9.50	0.234	7.5	6,780	38,607	48,003	900	900	37,707	0.87	261.82	0	0.00
39	585	9.75	0.251	8.1	7,263	44,969	48,752	914	914	44,055	1.01	261.95	0	0.00
40	600	10.00	0.268	8.6	7,746	51,801	49,497	928	928	50,873	1.17	262.09	0	0.00
41	615	10.25	0.160	5.1	4,619	55,492	49,893	936	936	54,557	1.25	262.16	0	0.00
42	630	10.50	0.161	5.2	4,650	59,207	50,292	943	943	58,264	1.34	262.23	0	0.00
43	645	10.75	0.240	7.7	6,937	65,201	50,935	955	955	64,246	1.47	262.35	0	0.00
44	660	11.00	0.241	7.7	6,968	71,214	51,581	967	967	70,247	1.61	262.47	0	0.00

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DEVELOPED CONDITIONS BASIN STAGE STORAGE - 24 HOUR STORM

PROJECT: EDELWEISS SUBSTAIN DARM
DRAINAGE AREA: DA-A
CONCENTRATION POINT: RETENTION BASINS

DRAINAGE AREA-ACRES	31.87
UNIT TIME-MINUTES	15
LAG TIME - MINUTES	9.75
UNIT TIME-PERCENT OF LAG	153.8
TOTAL ADJUSTED STORM RAIN-INCHES	3.90

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
45	675	11.25	0.226	7.3	6,547	76,793	52,179	978	978	75,815	1.74	262.57	0	0.00
46	690	11.50	0.227	7.3	6,576	82,392	52,780	990	990	81,402	1.87	262.68	0	0.00
47	705	11.75	0.197	6.3	5,704	87,106	53,286	999	999	86,107	1.98	262.77	0	0.00
48	720	12.00	0.214	6.9	6,184	92,291	53,843	1,010	1,010	91,281	2.10	262.87	0	0.00
49	735	12.25	0.324	10.4	9,371	100,652	54,716	1,026	1,026	99,626	2.29	263.03	0	0.00
50	750	12.50	0.341	10.9	9,851	109,477	55,587	1,042	1,042	108,435	2.49	263.19	0	0.00
51	765	12.75	0.373	12.0	10,781	119,216	56,550	1,060	1,060	118,156	2.71	263.36	0	0.00
52	780	13.00	0.389	12.5	11,260	129,416	57,557	1,079	1,079	128,337	2.95	263.53	0	0.00
53	795	13.25	0.468	15.0	13,544	141,881	58,789	1,102	1,102	140,779	3.23	263.75	0	0.00
54	810	13.50	0.469	15.1	13,571	154,350	60,021	1,125	1,125	153,224	3.52	263.97	0	0.00
55	825	13.75	0.299	9.6	8,635	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	6,836	7.60
56	840	14.00	0.300	9.6	8,662	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	7,535	8.37
57	855	14.25	0.363	11.7	10,492	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	9,366	10.41
58	870	14.50	0.348	11.2	10,067	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	8,940	9.93
59	885	14.75	0.349	11.2	10,092	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	8,966	9.96
60	900	15.00	0.334	10.7	9,666	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	8,540	9.49
61	915	15.25	0.319	10.3	9,240	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	8,113	9.01
62	930	15.50	0.305	9.8	8,813	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	7,686	8.54
63	945	15.75	0.243	7.8	7,032	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	5,906	6.56
64	960	16.00	0.244	7.8	7,056	155,023	60,087	1,127	1,127	153,896	3.53	**263.98**	5,929	6.59
65	975	16.25	0.011	0.3	312	154,208	60,007	1,125	1,125	153,083	3.51	263.97	0	0.00
66	990	16.50	0.012	0.4	334	153,417	59,929	1,124	1,124	152,294	3.50	263.95	0	0.00
67	1005	16.75	0.007	0.2	203	152,497	59,838	1,122	1,122	151,375	3.48	263.94	0	0.00
68	1020	17.00	0.007	0.2	203	151,578	59,747	1,120	1,120	150,458	3.45	263.92	0	0.00
69	1035	17.25	0.029	0.9	851	151,309	59,720	1,120	1,120	150,189	3.45	263.92	0	0.00
70	1050	17.50	0.030	1.0	872	151,061	59,696	1,119	1,119	149,942	3.44	263.91	0	0.00
71	1065	17.75	0.031	1.0	893	150,835	59,674	1,119	1,119	149,716	3.44	263.91	0	0.00
72	1080	18.00	0.016	0.5	462	150,178	59,609	1,118	1,118	149,061	3.42	263.90	0	0.00
73	1095	18.25	0.017	0.5	482	149,542	59,546	1,116	1,116	148,426	3.41	263.88	0	0.00
74	1110	18.50	0.017	0.6	501	148,927	59,485	1,115	1,115	147,811	3.39	263.87	0	0.00
75	1125	18.75	0.002	0.1	69	147,880	59,382	1,113	1,113	146,767	3.37	263.86	0	0.00
76	1140	19.00	0.005	0.2	135	146,902	59,285	1,112	1,112	145,791	3.35	263.84	0	0.00
77	1155	19.25	0.004	0.1	105	145,895	59,185	1,110	1,110	144,786	3.32	263.82	0	0.00
78	1170	19.50	0.020	0.6	573	145,359	59,132	1,109	1,109	144,250	3.31	263.81	0	0.00
79	1185	19.75	0.005	0.2	139	144,389	59,037	1,107	1,107	143,283	3.29	263.79	0	0.00
80	1200	20.00	0.005	0.2	135	143,418	58,941	1,105	1,105	142,313	3.27	263.78	0	0.00
81	1215	20.25	0.006	0.2	171	142,484	58,848	1,103	1,103	141,381	3.25	263.76	0	0.00
82	1230	20.50	0.006	0.2	186	141,567	58,758	1,102	1,102	140,465	3.22	263.75	0	0.00
83	1245	20.75	0.007	0.2	201	140,667	58,669	1,100	1,100	139,567	3.20	263.73	0	0.00
84	1260	21.00	0.005	0.2	135	139,702	58,574	1,098	1,098	138,604	3.18	263.71	0	0.00
85	1275	21.25	0.008	0.3	229	138,832	58,488	1,097	1,097	137,736	3.16	263.70	0	0.00
86	1290	21.50	0.005	0.2	135	137,871	58,393	1,095	1,095	136,776	3.14	263.68	0	0.00
87	1305	21.75	0.009	0.3	254	137,030	58,310	1,093	1,093	135,937	3.12	263.67	0	0.00
88	1320	22.00	0.005	0.2	135	136,072	58,215	1,092	1,092	134,980	3.10	263.65	0	0.00

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DRAINAGE AREA-ACRES	31.87
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TOTAL ADJUSTED STORM RAIN-INCHES	3.90

BASIN PERCOLATION RATE	0.9 in/hr
DRYWELLS	
NUMBER	0
DRYWELL PERCOLATION RATE	0.00 cfs

Unit Time Period	Time		Effective Rain	Flood Hydrograph Flow	Volume In	Basin Volume	Basin Losses			Total in Basin		Basin WSEL	Basin Outflow	
	Minutes	Hours					Percolation Area	Maximum Percolation	Percolation Out				Volume Out	Flow Out
			in/hr	cfs	cu-ft	cu-ft	sf	cu-ft	cu-ft	cu-ft	ac-ft	ft	cu-ft	cfs
89	1335	22.25	0.010	0.3	276	135,257	58,134	1,090	1,090	134,167	3.08	263.64	0	0.00
90	1350	22.50	0.005	0.2	135	134,302	58,040	1,088	1,088	133,214	3.06	263.62	0	0.00
91	1365	22.75	0.005	0.2	135	133,349	57,946	1,086	1,086	132,263	3.04	263.60	0	0.00
92	1380	23.00	0.005	0.2	135	132,398	57,852	1,085	1,085	131,313	3.01	263.59	0	0.00
93	1395	23.25	0.005	0.2	135	131,448	57,758	1,083	1,083	130,366	2.99	263.57	0	0.00
94	1410	23.50	0.005	0.2	135	130,501	57,665	1,081	1,081	129,420	2.97	263.55	0	0.00
95	1425	23.75	0.005	0.2	135	129,555	57,571	1,079	1,079	128,476	2.95	263.54	0	0.00
96	1440	24.00	0.005	0.2	135	128,611	57,478	1,078	1,078	127,533	2.93	263.52	0	0.00

BASIN WORKSHEET SUMMARY

EFFECTIVE RAIN	2.49 in
FLOOD VOLUME	6.62 acft
	288,165 cuft
TOTAL VOLUME RETAINED	210,348 cuft
MAX WSEL	263.98 ft
PEAK FLOW RATE	15.08 cfs
AVERAGE PERCOLATION RATE	57.51 cf/min
TOTAL OUTFLOW	77,818 cuft
	86.46 cfs
MAXIMUM OUTFLOW	9,366 cuft
	10.41 cfs

BASIN VOLUME WORKSHEET

PROECT EDELWEISS SUBSTAIN DARM
JOB No. 2626

BASIN CHARACTERISTICS

CONTOUR ELEVATION	DEPTH INCR (ft)	DEPTH TOTAL (ft)	AREA INCR (sf)	AREA TOTAL (sf)	VOLUME INCR (cuft)	VOLUME TOTAL (cuft)	VOLUME TOTAL (acre-ft)
261	0	0		43,462	0	0	0.00
262	1	1	5,429	48,891	46,150	46,150	1.06
263	1	2	5,542	54,432	51,637	97,787	2.24
264	1	3	5,655	60,087	57,237	155,023	3.56

WHERE: $$V = \frac{1}{3}(E_1 - E_2)\left(A_1 + A_2 + \sqrt{A_1 A_2}\right)$$

JOB #: 2626
DA-A RETENTION BASINS
DATE: March 25, 2022

CONIC METHOD
WHERE:

$$V = \frac{1}{3}(E_1 - E_2)\left(A_1 + A_2 + \sqrt{A_1 A_2}\right)$$

BASIN CHARACTERISTICS **BASIN "A"**

CONTOUR ELEVATION	DEPTH INCR (ft)	DEPTH TOTAL (ft)	AREA INCR (sf)	AREA TOTAL (sf)	VOLUME INCR (cuft)	VOLUME TOTAL (cuft)	VOLUME TOTAL (acre-ft)
261.0	0.0	0.0		43,462	0	0	0.00
262.0	1.0	1.0	5,429	48,891	46,150	46,150	1.06
263.0	1.0	2.0	5,542	54,432	51,637	97,787	2.24
264.0	1.0	3.0	5,655	60,087	57,237	155,023	3.56

BASIN CHARACTERISTICS **BASIN "B"**

CONTOUR ELEVATION	DEPTH INCR (ft)	DEPTH TOTAL (ft)	AREA INCR (sf)	AREA TOTAL (sf)	VOLUME INCR (cuft)	VOLUME TOTAL (cuft)	VOLUME TOTAL (acre-ft)
	0.0	0.0			0	0	0.00

Appendix G

Riverside County Whitewater River Region WQMP Worksheets

Whitewater Watershed

BMP Design Volume, V_{BMP} & Design Flow Rate, Q_{BMP} (Rev. 06-2014)

Legend: Required Entries / Calculated Cells

Company Name	MSA Consulting, Inc	Date	March 25, 2022
Designed By	FOS	County/City Case No.	
Company Project Number/Name	2626 - Edelweiss Substainable Farms, L.L.C.		
Drainage Area Number/Name	DA-A		

Enter the Area Tributary to this Feature (A_{TRIB}) — A_{TRIB} = 31.868 acres

Determine the Impervious Area Ratio

Determine the Impervious Area Within A_{TRIB} (A_{IMP}) — A_{IMP} = 28.681 acres

Calculate the Impervious Area Ratio (I_F)

$I_F = A_{IMP}/A_{TRIB}$ — I_F = 0.90

Calculate the Composite Runoff Coefficient, C for the BMP Tributary Area

Use the following equation based on the WEF/ASCE Method

$C_{BMP} = 0.858I_f^3 - 0.78I_f^2 + 0.774I_f + 0.04$ — C_{BMP} = 0.73

Determine Design Storage Volume, V_{BMP}

Calculate V_U, the 80% Unit Storage Volume $V_U = 0.40 \times C_{BMP}$ — V_U = 0.29 (in*ac)/ac

Calculate the design storage volume of the BMP, V_{BMP}

$$V_{BMP}\ (ft^3) = \frac{V_U\ (in\text{-}ac/ac) \times A_T\ (ac) \times 43{,}560\ (ft^2/ac)}{12(in/ft)}$$

V_{BMP} = 33,792 ft^3

BMP Design Flow Rate, Q_{BMP}

$Q_{BMP} = C_{BMP} \times I \times A_{TRIB}$ — Q_{BMP} = 4.65 ft^3/s

I = Design Rainfall Intensity, 0.2 in/hr

Notes:

Appendix H

Preliminary Synthetic Unit Hydrograph Exhibit
Preliminary Grading Plan

IN THE CITY OF BLYTHE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

PRELIMINARY HYDROLOGY EXHIBIT

RCFCD SYNTHETIC UNIT (SHORTCUT METHOD)

EXHIBIT DATE: JUNE 17, 2021

REVISIONS

NO.	DATE	DESCRIPTION
1	05/21/2021	REVISED SITE PLAN PER CHANGES TO PARKING DEPTH, UPDATED DATA TABLE

DATA TABLE

APPLICANT / LAND OWNER:	EDELWEISS SUSTAINABLE FARMS, LLC.		
ADDRESS:	6086 YUCCA MESA ROAD YUCCA VALLEY, CALIFORNIA 92284		
CONTACT:	PATRICK KELLY	TELEPHONE:	(310) 408-5080
EXHIBIT PREPARER:	MSA CONSULTING, INC.		
ADDRESS:	34200 BOB HOPE DRIVE RANCHO MIRAGE, CALIFORNIA 92270		
CONTACT:	PAUL DEPALATIS, AICP	TELEPHONE:	(760) 320-9811
SOURCE OF TOPOGRAPHY:	INLAND AERIAL SURVEYS, INC.		
ADDRESS:	7117 ARLINGTON AVENUE, SUITE "A" RIVERSIDE, CALIFORNIA 92503		
DATE OF TOPOGRAPHY:	JANUARY 30, 2021	TELEPHONE:	(951) 687-4252
ASSESSOR'S PARCEL NUMBER:	836-100-007		

LEGAL DESCRIPTION:

A PORTION OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 23 EAST, SAN BERNARDINO MERIDIAN.

DRAINAGE AREA "A"

EXISTING LAND USE SUMMARY

LAND USE	DA-A AREA (acres)	SOIL GROUP	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT (DECIMAL)
OPEN BRUSH – FAIR	26.132	C	77	0.28	0.05
OPEN BRUSH – FAIR	5.736	D	83	0.21	0.05
TOTAL AREA	31.868				

DEVELOPED LAND USE SUMMARY

LAND USE	DA-A AREA (acres)	SOIL GROUP	RI NUMBER	AMC II INFILTRATION RATE (in/hr)	IMPERVIOUS PERCENT (DECIMAL)
COMMERCIAL	26.132	C	69	0.39	0.90
COMMERCIAL	5.736	D	75	0.30	0.90
TOTAL AREA	31.868				

DEVELOPED STORM EVENT SUMMARY

DURATION		1-HOUR	3-HOUR	6-HOUR	24-HOUR
EFFECTIVE RAIN	(in)	1.51	1.97	2.14	2.49
FLOOD VOLUME	(cu-ft) (acre-ft)	174,559 4.01	277,536 5.22	247,028 5.67	**288,165** **6.62**
PEAK FLOW	(cfs)	N/A	66.65	53.00	15.08

INCREMENTAL INCREASE STORM EVENT SUMMARY

DURATION		1-HOUR	3-HOUR	6-HOUR	24-HOUR
FLOOD VOLUME	(cu-ft) (acre-ft)	21,325 0.49	62,800 1.44	107,282 2.46	**161,642** **3.71**
VOLUME RETAINED	(cu-ft) (acre-ft)	158,479 3.64	166,342 3.82	177,130 4.07	**210,348** **4.83**
MAXIMUM WSEL BASIN DEPTH	(ft) (ft)	**263.99** **2.99**	**263.99** **2.99**	**263.99** **2.99**	263.98 2.98

BASIN VOLUME SUMMARY

CONTOUR ELEVATION (ft)	BASIN DEPTH (ft)	CONTOUR AREA (sf)	TOTAL VOLUME (cu-ft)	(acre-ft)
261	0.0	43,462	0.00	0.00
262	1.0	48,891	46,150	1.06
263	2.0	54,432	97,787	2.24
264	3.0	60,087	155,023	3.56

WQMP SUMMARY

DRAINAGE AREA	TOTAL AREA (acres)	IMPERVIOUS AREA (acres)	DESIGN VOLUME (cu-ft)	DESIGN FLOW (cfs)
A	31.868	28.681	33,792	4.65

LEGEND

- DRAINAGE FLOW
- TRIBUTARY AREA BOUNDARY
- A / L-XX / A-XX — DRAINAGE SUB-AREA ID, FLOW TRAVEL LENGTH (FT), AREA (AC)
- XX.X — ELEVATION
- SD — PROPOSED STORM DRAIN
- PROPOSED FLOOD PROOFED PORTION OF BUILDING

LAND USE LEGEND

COMMERCIAL

NORTH

0' 40' 80' 120' 160'

SCALE 1"=40'

MSA CONSULTING, INC.
> PLANNING > CIVIL ENGINEERING > LAND SURVEYING
34200 Bob Hope Drive, Rancho Mirage, CA 92270
760.320.9811 msaconsultinginc.com

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IN THE CITY OF BLYTHE, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA

PRELIMINARY GRADING PLAN

EXHIBIT DATE: JUNE 17, 2021

REVISIONS

NO.	DATE	DESCRIPTION
1	05/21/2021	REVISED SITE PLAN PER CHANGES TO PARKING DEPTH, UPDATED DATA TABLE

DATA TABLE

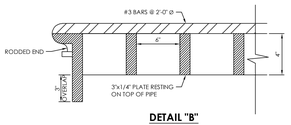
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CONTACT:	PATRICK KELLY	TELEPHONE:	(310) 408-5080
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LEGAL DESCRIPTION:

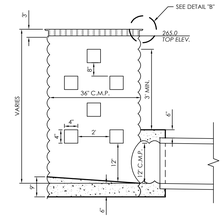
A PORTION OF THE NORTHEAST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 31, TOWNSHIP 6 SOUTH, RANGE 23 EAST, SAN BERNARDINO MERIDIAN.

EARTHWORK ESTIMATES

	CUT (CY)	FILL (CY)
RAW	74,208	22,830
SUBSIDENCE (4')	-	21,683
SHRINKAGE (20%)	-	14,842
OVER EX. (4')	12,590	12,590
SHRINKAGE (20%)	-	2,518
EXPORT	-	12,380 (RAISE SITE 0.2')
TOTAL	86,798	86,798



DETAIL "B"
N.T.S.



DETAIL "A"
36" PERFORATED CMP PIPE INLET
N.T.S.



VICINITY MAP
N.T.S.

LEGEND

- 679.2 EXISTING SPOT ELEVATIONS
- EXISTING CONTOURS
- EXISTING EASEMENT DELTA
- C — EXISTING CABLE
- DRN — EXISTING IRRIGATION DRAIN LINE
- EXISTING EASEMENT
- E — EXISTING ELECTRIC
- G — EXISTING GAS
- IRR — EXISTING IRRIGATION
- EXISTING LOT LINE
- EXISTING EDGE OF PAVEMENT
- T — EXISTING TELEPHONE
- O/H T — EXISTING OVERHEAD TELEPHONE
- R/W — EXISTING RIGHT OF WAY
- S — EXISTING SEWER
- FM — EXISTING SEWER FORCE MAIN
- W — EXISTING WATER
- EXISTING PROJECT BOUNDARY
- PROPOSED PROJECT BOUNDARY
- PROPOSED AND EXISTING CENTER LINE
- PROPOSED CURB
- PROPOSED EASEMENT
- PROPOSED LOT LINE
- PROPOSED RIGHT OF WAY

ABBREVIATIONS

(E)	EXIST
(N)	NORTH
(S)	SOUTH
(W)	WEST
A.C.	ASPHALT CONCRETE
AC.	ACREAGE
APN	ASSESSORS PARCEL NUMBER
BNDRY	BOUNDARY
C/L	CENTERLINE
C&G	CURB AND GUTTER
E/P	EDGE OF PAVEMENT
ESMT.	EASEMENT
EX.	EXISTING
MAX.	MAXIMUM
M.B.	MAP BOOK
MIN.	MINIMUM
NO.	NUMBER
N.T.S.	NOT TO SCALE
O/H	OVERHEAD
OS/PP	OPEN SPACE / PARKS
PG.	PAGE
P/L	PROPERTY LINE
PROP.	PROPOSED
P.U.E.	PUBLIC UTILITY EASEMENT
R	RADIUS
R-L	LOW DENSITY (RESIDENTIAL)
R/W	RIGHT OF WAY
SF	SQUARE FEET
STD.	STANDARD
TYP.	TYPICAL
UG	UNDERGROUND

NORTH

0' 40' 80' 120' 160'

SCALE 1"=40'

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MSA CONSULTING, INC.
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760.320.9811 **msaconsultinginc.com**

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix L

Noise Study

May 2022

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Edelweiss Sustainable Farms

NOISE IMPACT ANALYSIS

CITY OF BLYTHE

PREPARED BY:

William Maddux
bmaddux@urbanxroads.com
(619) 788-1971

MARCH 9, 2022

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
ANSI	American National Standards Institute
Calveno	California Vehicle Noise
CEQA	California Environmental Quality Act
CNEL	Community Noise Equivalent Level
dBA	A-weighted decibels
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
HVAC	Heating, Ventilation, and Air Conditioning
L_{eq}	Equivalent continuous (average) sound level
L_{max}	Maximum level measured over the time interval
L_{min}	Minimum level measured over the time interval
mph	Miles per hour
OPR	Office of Planning and Research
PPV	Peak particle velocity
Project	Edelweiss Sustainable Farms
REMEL	Reference Energy Mean Emission Level
RMS	Root-mean-square
VdB	Vibration Decibels

EXECUTIVE SUMMARY

Urban Crossroads, Inc. has prepared this noise study to determine the potential noise impacts and the necessary noise mitigation measures, if any, for the proposed Edelweiss Sustainable Farms development ("Project"). The Project site is located south of Hobsonway and 0.25 mile east of South Defrain Boulevard, north of Interstate 10 (I-10) in the City of Blythe.

The results of this Edelweiss Sustainable Farms Noise Impact Analysis are summarized below based on the significance criteria in Section 4 of this report consistent with Appendix G of the California Environmental Quality Act (CEQA) Guidelines (1). Table ES-1 shows the findings of significance for each potential noise and/or vibration impact under CEQA. All impacts are considered less than significant without mitigation.

TABLE ES-1: SUMMARY OF CEQA SIGNIFICANCE FINDINGS

Analysis	Report Section	Significance Findings	
		Unmitigated	Mitigated
Off-Site Traffic Noise	7	*Less Than Significant*	-
Operational Noise	9	*Less Than Significant*	-
Construction Noise	10	*Less Than Significant*	-
Construction Vibration		*Less Than Significant*	-

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1 INTRODUCTION

This noise analysis has been completed to determine the noise impacts associated with the development of the proposed Edelweiss Sustainable Farms ("Project"). This noise study briefly describes the proposed Project, provides information regarding noise fundamentals, sets out the local regulatory setting, presents the study methods and procedures for noise analysis, and evaluates the noise impacts from potential Project-related long-term off-site traffic increase, stationary-source operational noise sources, and short-term construction noise and vibration impacts.

1.1 SITE LOCATION

The proposed project is located south of Hobsonway and 0.25 miles east of South Defrain Boulevard, north of Interstate 10 (I-10) in the City of Blythe as shown on Exhibit 1-A. The nearest residential land use is west of the Project site. The Palo Verde Valley High School is located 0.56 miles to the northeast of the Project site. The project is bordered by undeveloped land to the north and east, with residential and agricultural uses to the west and south. The closest airport is The Blythe Airport, located approximately 5 miles northwest of the project site.

1.2 PROJECT DESCRIPTION

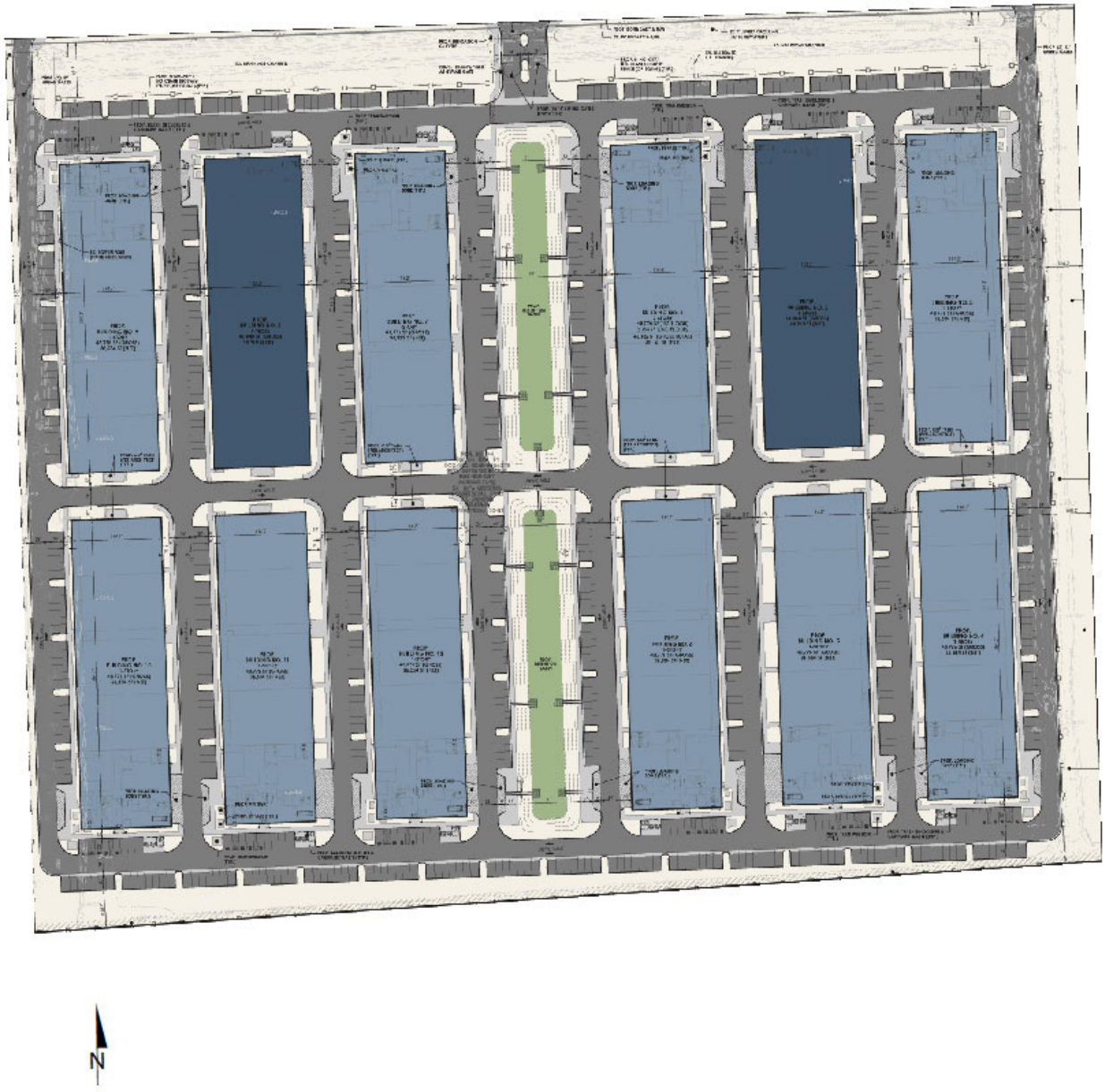
It is our understanding that the Project is to develop a 533,812 square foot cannabis cultivation facility in twelve buildings. Exhibit 1-B illustrates a preliminary site plan for the Project.

The on-site Project-related noise sources are expected to include: roof-top air conditioning units, ventilation fans, and trash enclosure activity. This noise analysis is intended to describe noise level impacts associated with the expected typical operational activities at the Project site. This report assumes the Project will operate 24-hours daily for seven days per week.

EXHIBIT 1-A: LOCATION MAP



EXHIBIT 1-B: SITE PLAN



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2 FUNDAMENTALS

Noise is simply defined as "unwanted sound." Sound becomes unwanted when it interferes with normal activities, when it causes actual physical harm or when it has adverse effects on health. Noise is measured on a logarithmic scale of sound pressure level known as a decibel (dB). A-weighted decibels (dBA) approximate the subjective response of the human ear to broad frequency noise source by discriminating against very low and very high frequencies of the audible spectrum. They are adjusted to reflect only those frequencies which are audible to the human ear. Exhibit 2-A presents a summary of the typical noise levels and their subjective loudness and effects that are described in more detail below.

EXHIBIT 2-A: TYPICAL NOISE LEVELS

COMMON OUTDOOR ACTIVITIES	COMMON INDOOR ACTIVITIES	A - WEIGHTED SOUND LEVEL dBA	SUBJECTIVE LOUDNESS	EFFECTS OF NOISE
THRESHOLD OF PAIN		140	INTOLERABLE OR DEAFENING	HEARING LOSS
NEAR JET ENGINE		130		
		120		
JET FLY-OVER AT 300m (1000 ft)	ROCK BAND	110		
LOUD AUTO HORN		100	VERY NOISY	
GAS LAWN MOWER AT 1m (3 ft)		90		
DIESEL TRUCK AT 15m (50 ft), at 80 km/hr (50 mph)	FOOD BLENDER AT 1m (3 ft)	80		SPEECH INTERFERENCE
NOISY URBAN AREA, DAYTIME	VACUUM CLEANER AT 3m (10 ft)	70	LOUD	
HEAVY TRAFFIC AT 90m (300 ft)	NORMAL SPEECH AT 1m (3 ft)	60		
QUIET URBAN DAYTIME	LARGE BUSINESS OFFICE	50	MODERATE	SLEEP DISTURBANCE
QUIET URBAN NIGHTTIME	THEATER, LARGE CONFERENCE ROOM (BACKGROUND)	40		
QUIET SUBURBAN NIGHTTIME	LIBRARY	30	FAINT	NO EFFECT
QUIET RURAL NIGHTTIME	BEDROOM AT NIGHT, CONCERT HALL (BACKGROUND)	20		
	BROADCAST/RECORDING STUDIO	10	VERY FAINT	
LOWEST THRESHOLD OF HUMAN HEARING	LOWEST THRESHOLD OF HUMAN HEARING	0		

Source: Environmental Protection Agency Office of Noise Abatement and Control, Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety (EPA/ONAC 550/9-74-004) March 1974.

2.1 RANGE OF NOISE

Since the range of intensities that the human ear can detect is so large, the scale frequently used to measure intensity is a scale based on multiples of 10, the logarithmic scale. The scale for measuring intensity is the decibel scale. Each interval of 10 decibels indicates a sound energy ten times greater than before, which is perceived by the human ear as being roughly twice as loud (2). The most common sounds vary between 40 dBA (very quiet) to 100 dBA (very loud). Normal conversation at three feet is roughly at 60 dBA, while loud jet engine noises equate to 110 dBA

at approximately 100 feet, which can cause serious discomfort (3). Another important aspect of noise is the duration of the sound and the way it is described and distributed in time.

2.2 NOISE DESCRIPTORS

Environmental noise descriptors are generally based on averages, rather than instantaneous, noise levels. The most used figure is the equivalent level (L_{eq}). Equivalent sound levels are not measured directly but are calculated from sound pressure levels typically measured in A-weighted decibels (dBA). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period (typically one hour) and is commonly used to describe the "average" noise levels within the environment.

Peak hour or average noise levels, while useful, do not completely describe a given noise environment, however. Noise levels lower than peak hour may be disturbing if they occur during times when quiet is most desirable, namely evening and nighttime (sleeping) hours. To account for this, the Community Noise Equivalent Level (CNEL), representing a composite 24-hour noise level is utilized. The CNEL is the weighted average of the intensity of a sound, with corrections for time of day, and averaged over 24 hours. The time-of-day corrections require the addition of 5 decibels to dBA L_{eq} sound levels in the evening from 7:00 p.m. to 10:00 p.m., and the addition of 10 decibels to dBA L_{eq} sound levels at night between 10:00 p.m. and 7:00 a.m. These additions are made to account for the noise sensitive time periods during the evening and night hours when sound appears louder. CNEL does not represent the actual sound level heard at any time, but rather represents the total sound exposure. The City of Blythe relies on the 24-hour CNEL level to assess land use compatibility with transportation related noise sources.

2.3 SOUND PROPAGATION

When sound propagates over a distance, it changes in level and frequency content. Based on guidance from the U.S. Department of Transportation, Federal Highway Administration (FHWA), Office of Environment and Planning, Noise and Air Quality Branch, the way noise reduces with distance depends on the following factors.

2.3.1 GEOMETRIC SPREADING

Sound from a localized source (i.e., a stationary point source) propagates uniformly outward in a spherical pattern. The sound level attenuates (or decreases) at a rate of 6 dB for each doubling of distance from a point source. Highways consist of several localized noise sources on a defined path and hence can be treated as a line source, which approximates the effect of several point sources. Noise from a line source propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of 3 dB for each doubling of distance from a line source (2).

2.3.2 GROUND ABSORPTION

The propagation path of noise from a highway to a receiver is usually very close to the ground. Noise attenuation from ground absorption and reflective wave canceling adds to the attenuation

associated with geometric spreading. Traditionally, the excess attenuation has also been expressed in terms of attenuation per doubling of distance. This approximation is usually sufficiently accurate for distances of less than 200 feet. For acoustically hard sites (i.e., sites with a reflective surface between the source and the receiver, such as a parking lot or body of water), no excess ground attenuation is assumed. For acoustically absorptive or soft sites (i.e., those sites with an absorptive ground surface between the source and the receiver such as soft dirt, grass, or scattered bushes and trees), an excess ground attenuation value of 1.5 dB per doubling of distance is normally assumed. When added to the cylindrical spreading, the excess ground attenuation results in an overall drop-off rate of 4.5 dB per doubling of distance from a line source (4).

2.3.3 ATMOSPHERIC EFFECTS

Receivers located downwind from a source can be exposed to increased noise levels relative to calm conditions, whereas locations upwind can have lowered noise levels. Sound levels can be increased at large distances (e.g., more than 500 feet) due to atmospheric temperature inversion (i.e., increasing temperature with elevation). Other factors such as air temperature, humidity, and turbulence can also have significant effects (2).

2.3.4 SHIELDING

A large object or barrier in the path between a noise source and a receiver can substantially attenuate noise levels at the receiver. The amount of attenuation provided by shielding depends on the size of the object and the frequency content of the noise source. Shielding by trees and other such vegetation typically only has an "out of sight, out of mind" effect. That is, the perception of noise impact tends to decrease when vegetation blocks the line-of-sight to nearest residents. However, for vegetation to provide a substantial, or even noticeable, noise reduction, the vegetation area must be at least 15 feet in height, 100 feet wide and dense enough to completely obstruct the line-of sight between the source and the receiver. This size of vegetation may provide up to 5 dBA of noise reduction. The FHWA does not consider the planting of vegetation to be a noise abatement measure (4).

2.3.5 REFLECTION

Field studies conducted by the FHWA have shown that the reflection from barriers and buildings does not substantially increase noise levels (4). If all the noise striking a structure was reflected back to a given receiving point, the increase would be theoretically limited to 3 dBA. Further, not all the acoustical energy is reflected back to same point. Some of the energy would go over the structure, some is reflected to points other than the given receiving point, some is scattered by ground coverings (e.g., grass and other plants), and some is blocked by intervening structures and/or obstacles (e.g., the noise source itself). Additionally, some of the reflected energy is lost due to the longer path that the noise must travel. FHWA measurements made to quantify reflective increases in traffic noise have not shown an increase of greater than 1-2 dBA; an increase that is not perceptible to the average human ear.

2.4 NOISE CONTROL

Noise control is the process of obtaining an acceptable noise environment for an observation point or receiver by controlling the noise source, transmission path, receiver, or all three. This concept is known as the source-path-receiver concept. In general, noise control measures can be applied to these three elements.

2.5 NOISE BARRIER ATTENUATION

Effective noise barriers can reduce noise levels by up to 10 to 15 dBA, cutting the loudness of traffic noise in half. A noise barrier is most effective when placed close to the noise source or receiver. Noise barriers, however, do have limitations. For a noise barrier to work, it must be high enough and long enough to block the path of the noise source (4).

2.6 LAND USE COMPATIBILITY WITH NOISE

Some land uses are more tolerant of noise than others. For example, schools, hospitals, churches, and residences are more sensitive to noise intrusion than are commercial or industrial developments and related activities. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, recreation areas or buildings where people normally sleep. As ambient noise levels affect the perceived amenity or livability of a development, so too can the mismanagement of noise impacts impair the economic health and growth potential of a community by reducing the area's desirability as a place to live, shop and work. For this reason, land use compatibility with the noise environment is an important consideration in the planning and design process. The FHWA encourages State and Local government to regulate land development in such a way that noise-sensitive land uses are either prohibited from being located adjacent to a highway, or that the developments are planned, designed, and constructed in such a way that noise impacts are minimized (5).

2.7 COMMUNITY RESPONSE TO NOISE

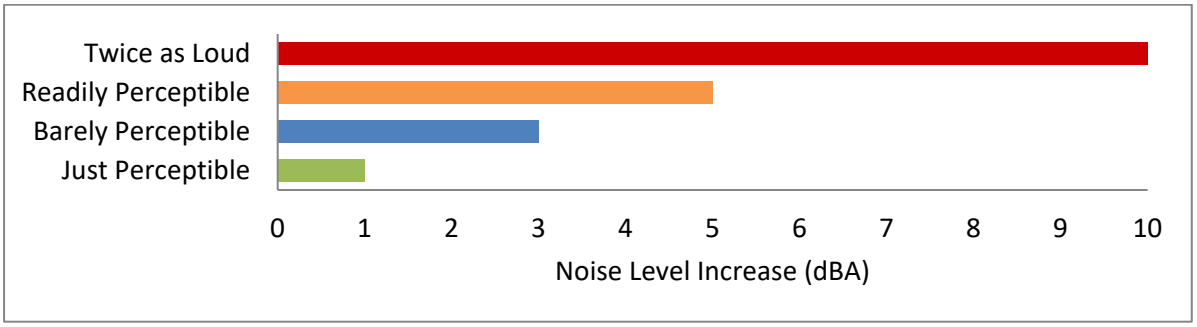
Community responses to noise varies depending upon everyone's susceptibility to noise and personal attitudes about noise. Several factors are related to the level of community annoyance including:

- Fear associated with noise producing activities;
- Socio-economic status and educational level;
- Perception that those affected are being unfairly treated;
- Attitudes regarding the usefulness of the noise-producing activity;
- Belief that the noise source can be controlled.

Approximately ten percent of the population has a very low tolerance for noise and will object to any noise not of their making. Consequently, even in the quietest environment, some complaints will occur. Twenty-five percent of the population will not complain even in very severe noise

environments. Thus, a variety of reactions can be expected from people exposed to any given noise environment (6). Surveys have shown that about ten percent of the people exposed to traffic noise of 60 dBA will report being highly annoyed with the noise, and each increase of one dBA is associated with approximately two percent more people being highly annoyed. When traffic noise exceeds 60 dBA or aircraft noise exceeds 55 dBA, people may begin to complain (6). Despite this variability in behavior on an individual level, the population can be expected to exhibit the following responses to changes in noise levels as shown on Exhibit 2-B. A change of 3 dBA are considered *barely perceptible*, and changes of 5 dBA are considered *readily perceptible*. (4)

EXHIBIT 2-B: NOISE LEVEL INCREASE PERCEPTION



2.8 VIBRATION

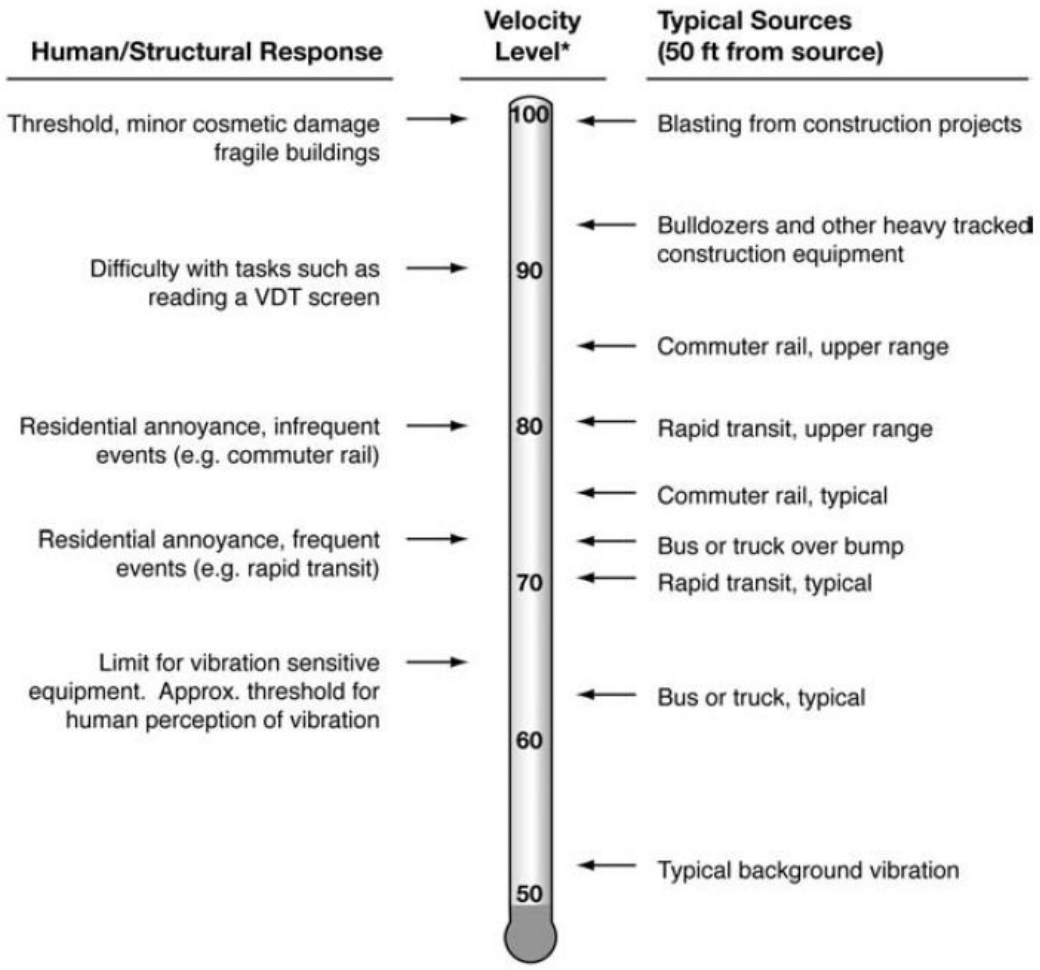
Per the Federal Transit Administration (FTA) *Transit Noise Impact and Vibration Assessment* (7), vibration is the periodic oscillation of a medium or object. The rumbling sound caused by the vibration of room surfaces is called structure-borne noise. Sources of ground-borne vibrations include natural phenomena (e.g., earthquakes, volcanic eruptions, sea waves, landslides) or human-made causes (e.g., explosions, machinery, traffic, trains, construction equipment). Vibration sources may be continuous, such as factory machinery, or transient, such as explosions. As is the case with airborne sound, ground-borne vibrations may be described by amplitude and frequency.

The peak particle velocity (PPV) is defined as the maximum instantaneous peak of the vibration signal. Typically, ground-borne vibration generated by man-made activities attenuates rapidly with distance from the source of the vibration. Sensitive receivers for vibration include structures (especially older masonry structures), people (especially residents, the elderly, and sick), and vibration-sensitive equipment.

The background vibration-velocity level in residential areas is generally 50 VdB (0.0013 PPV in/sec) (8). Ground-borne vibration is normally perceptible to humans at approximately 65 VdB (0.0071 PPV in/sec). For most people, a vibration-velocity level of 75 VdB (0.0225 PPV in/sec) is the approximate dividing line between barely perceptible and distinctly perceptible levels. Typical outdoor sources of perceptible ground-borne vibration are construction equipment, steel-wheeled trains, and traffic on rough roads. If a roadway is smooth, the ground-borne

vibration is rarely perceptible. The range of interest is from approximately 50 VdB, which is the typical background vibration-velocity level, to 100 VdB (0.4 PPV in/sec), which is the general threshold where minor damage can occur in fragile buildings. Exhibit 2-C illustrates common vibration sources and the human and structural response to ground-borne vibration.

EXHIBIT 2-C: TYPICAL LEVELS OF GROUND-BORNE VIBRATION



** RMS Vibration Velocity Level in VdB relative to 10^{-6} inches/second*

Source: FTA Transit Noise and Vibration Impact Assessment Manual.

3 REGULATORY SETTING

To limit population exposure to physically and/or psychologically damaging as well as intrusive noise levels, the federal government, the State of California, various county governments, and most municipalities in the state have established standards and ordinances to control noise. In most areas, automobile and truck traffic is the major source of environmental noise. Traffic activity generally produces an average sound level that remains constant with time. Air and rail traffic, and commercial and industrial activities are also major sources of noise in some areas. Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies.

3.1 STATE OF CALIFORNIA NOISE REQUIREMENTS

The State of California regulates freeway noise, sets standards for sound transmission, provides occupational noise control criteria, identifies noise standards, and provides guidance for local land use compatibility. State law requires that each county and city adopt a General Plan that includes a Noise Element which is to be prepared per guidelines adopted by the Governor's Office of Planning and Research. (9) The purpose of the Noise and Safety Element is to limit the exposure of the community to excessive noise levels. In addition, the California Environmental Quality Act (CEQA) requires that all known environmental effects of a project be analyzed, including environmental noise impacts.

3.2 CITY OF BLYTHE GENERAL PLAN NOISE ELEMENT

The City of Blythe adopted the General Plan on December 18, 2014 (10). Chapter 9 of the General Plan includes the Noise and Safety Element which identifies several polices to minimize the impacts of excessive noise levels throughout the community and establishes noise level compatibility guidelines for all land uses. To protect City of Blythe residents from excessive noise, the Noise and Safety Element contains the following implementing policies related to the Project:

S-1. Policy: Areas shall be recognized as noise impacted if exposed to existing or projected future noise levels at the property line which exceed 65 dB Ldn (or CNEL).

S-2. Policy: Noise sensitive land uses should be discouraged in noise impacted areas unless effective mitigation measures are incorporated into the specific design of such projects to reduce exterior noise levels to 65 dB Ldn (or CNEL) or less and 45 dB Ldn (or CNEL) or less within interior living spaces. Areas shall be designated as noise-impacted if exposed to existing or projected future noise levels at the exterior of buildings which exceed 60dB Ldn (or CNEL).

S-3. Policy: New industrial, commercial or other noise generating land uses (including roadways, railroads, and airports) should be discouraged if resulting noise levels will exceed 65 dB Ldn (or CNEL) at the boundary areas of planned or zoned noise sensitive land uses.

S-4. Policy: The City shall enforce applicable State Noise Insulation Standards (California Administrative Code, Title 24) and Uniform Building Code noise requirements.

S-5. Policy: New equipment and vehicles purchased by the City should comply with noise level performance standards consistent with the best available noise reduction technology.

S-6. Policy: The preferred method of noise control used is thoughtful site design. Secondarily, noise control should be achieved through the use of artificial noise barriers. Site and building design guidelines may include:

a. Noise sensitive land uses should not front onto the primary noise source. Where this is not possible, the narrow portion of the building should face the primary noise source, and the interior layout should locate the most sensitive areas away from the noise source by placing garages, storage facilities, carports or other such areas nearest the noise source.

b. Noise sensitive areas include the following land uses:

i. Residential developments;

ii. Schools

iii. Hospitals, rest homes, long-term medical care facilities;

iv. Churches; and,

v. Other uses deemed noise sensitive by the local jurisdiction.

c. Site design should permit noise to pass around or through a development. This can be achieved by placing the narrow or convex portion of the structure toward the primary noise source.

d. Commercial and industrial structures should be designed so that any noise generated from the interior of the building is focused away from noise sensitive land uses. Two-story residential construction should be avoided, where possible, immediately adjacent to arterials or collectors unless an adequate combination of noise attenuation procedures is used.

e. When possible, residential cul-de-sacs should be perpendicular to adjacent arterials or collectors.

f. Loading and unloading activities for commercial uses should be conducted in an enclosed loading dock, preferably with a positive seal between the loading dock and trucks.

S-7. Policy: The City shall review all relevant development plans, programs and proposals to ensure their conformance with the policy framework outlined in this Noise Element.

S-8. Policy: Prior to the approval of a proposed development in a noise impacted area, or the development of an industrial, commercial or other noise generating land use in or near an area containing existing or planned noise sensitive land uses, an acoustical analysis may be required if all of the following findings are made:

a. The existing or projected future noise exposure at the exterior of buildings which will contain noise sensitive uses or within proposed outdoor activity areas (patios, decks, backyards, pool areas, recreation areas, etc.) exceeds 65 dB Ldn, (or CNEL).

b. Interior residential noise levels resulting from off-site noise are estimated to exceed 45 dBA.

c. Estimated or projected noise levels cannot be reduced to the noise exposure limitations specified in this Noise Element by the application of Standard Noise Reduction Methods. When noise studies are necessary they should:

i. Be the responsibility of the applicant.

ii. Be prepared by an individual or firm with demonstrable experience in the fields of environmental noise assessment and architectural acoustics.

iii. Include representative noise level measurements with sufficient sampling periods and locations to adequately describe local conditions.

iv. Include estimated noise levels in terms of dB Ldn (or CNEL) for existing and projected future (10-30 year hence) conditions, with a comparison made to the adopted policies of the Noise Element.

v. Include recommendations for appropriate mitigation measures to achieve compliance with the adopted policies and standards of the Noise Element.

vi. Include estimates of noise exposure after the prescribed mitigation measures have been implemented. If compliance with the adopted standards and policies of the Noise Element will not be achieved, a rationale for acceptance of the project must be provided.

vii. The acoustical analysis should be prepared as early in the project review or permitting process as possible, so that noise mitigation measures may be an integral part of the project design rather than an afte1ihought.

S-9. Policy: Development on the Blythe Municipal Airport shall conform with the Blythe Airport Master Plan to minimize the impact of airport operation on noise sensitive land uses.

S-10. Policy: Proposed land uses within the Airport influence Area shall be reviewed for consistency with the Noise Compatibility Criteria set forth in Table 8.2-2, with Figure 8-5 Ultimate Noise Impacts used as a review guide.

S-11. Policy: Land uses that are compatible with higher noise levels will be located adjacent to major roads and other significant noise sources.

3.3 CONSTRUCTION NOISE STANDARDS

Neither the City of Blythe General Plan Noise Element or Municipal Codes establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or permanent increase in ambient noise levels*. Therefore, a numerical construction threshold based on FTA *Transit Noise and Vibration Impact Assessment Manual* is used for analysis of daytime construction impacts, as discussed below.

According to the FTA, local noise ordinances are typically not very useful in evaluating construction noise. They usually relate to nuisance and hours of allowed activity, and sometimes specify limits in terms of maximum levels, but are generally not practical for assessing the impact of a construction project. Project construction noise criteria should account for the existing noise environment, the absolute noise levels during construction activities, the duration of the construction, and the adjacent land use. Due to the lack of standardized construction noise thresholds, the FTA provides guidelines that can be considered reasonable criteria for construction noise assessment. The FTA considers a daytime exterior construction noise level of 80 dBA L_{eq} as a reasonable threshold for noise sensitive residential land use. (8 p. 179)

3.4 CONSTRUCTION VIBRATION STANDARDS

Construction activity can result in varying degrees of ground-borne vibration, depending on the equipment and methods used, distance to the affected structures and soil type. Construction vibration is generally associated with pile driving and rock blasting. Other construction equipment such as air compressors, light trucks, hydraulic loaders, etc., generates little or no ground vibration. (8) To analyze vibration impacts originating from the construction of the Edelweiss Sustainable Farms, vibration-generating activities are appropriately evaluated against standards established under a City's Municipal Code, if such standards exist. However, the City of Blythe does not identify specific vibration level limits. Therefore, this analysis relies on the Caltrans *Transportation and Construction Vibration Guidance Manual*, (11 p. 38) vibration damage and annoyance criteria to assess the potential temporary construction-related impacts at adjacent receiver locations.

While ground vibrations from construction activities do not often reach the levels that can damage structures, fragile buildings must receive special consideration. Therefore, the construction vibration damage potential criteria should consider the building conditions. (3 p. 182) Table 3-1 describes the maximum acceptable transient and continuous vibration building damage potential levels by structure type and condition. Most of the noise sensitive buildings near the Project site can best be described as older residential structures or commercial building with a maximum acceptable transient building damage vibration threshold of 0.3 PPV (in/sec).

TABLE 3-1: BUILDING DAMAGE VIBRATION CRITERIA

Structure and Condition	Maximum Transient Vibration Levels PPV (in/sec)	Maximum Continuous Vibration Levels PPV (in/sec)
Extremely fragile historic buildings	0.12	0.08
Fragile buildings	0.2	0.1
Historic and some old buildings	0.5	0.25
Older residential structures	0.5	0.3
New residential structures	1.0	0.5
Modern industrial/commercial buildings	2.0	0.5

Caltrans Transportation and Construction Vibration Guidance Manual, April 2020, Tables 19, p. 38.

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4 SIGNIFICANCE CRITERIA

The following significance criteria are based on currently adopted guidance provided by Appendix G of the California Environmental Quality Act (CEQA) Guidelines. (9) For the purposes of this report, impacts would be potentially significant if the Project results in or causes:

A. Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

B. Generation of excessive ground-borne vibration or ground-borne noise levels?

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

While the City of Blythe General Plan Guidelines provide direction on noise compatibility and establish noise standards by land use type that are sufficient to assess the significance of noise impacts, they do not define the levels at which increases are considered substantial for use under Guideline A. CEQA Appendix G Guideline C applies to nearby public and private airports, if any, and the Project's land use compatibility.

4.1 CEQA GUIDELINES NOT FURTHER ANALYZED

The Project site is not located within two miles of a public airport or within an airport land use plan. The closest airport is the Blythe Airport located approximately 5 miles northwest of the Project site. As such, the Project site would not be exposed to excessive noise levels from airport operations, and therefore, impacts are considered *less than significant,* and no further noise analysis is conducted in relation to Guideline C.

4.2 NOISE-SENSITIVE RECEIVERS

Noise level increases resulting from the Project are evaluated based on the Appendix G CEQA Guidelines described above at the closest sensitive receiver locations. Under CEQA, consideration must be given to the magnitude of the increase, the existing ambient noise levels, and the location of noise-sensitive receivers to determine if a noise increase represents a significant adverse environmental impact. This approach recognizes *that there is no single noise increase that renders the noise impact significant.* (12)

Unfortunately, there is no completely satisfactory way to measure the subjective effects of noise or of the corresponding human reactions of annoyance and dissatisfaction. This is primarily because of the wide variation in individual thresholds of annoyance and differing individual experiences with noise. Thus, an important way of determining a person's subjective reaction to a new noise is the comparison of it to the existing environment to which one has adapted—the so-called *ambient* environment. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will typically be judged. The Federal

Interagency Committee on Noise (FICON) (13) developed guidance to be used for the assessment of project-generated increases in noise levels that consider the ambient noise level. The FICON recommendations are based on studies that relate aircraft noise levels to the percentage of persons highly annoyed by aircraft noise. Although the FICON recommendations were specifically developed to assess aircraft noise impacts, these recommendations are often used in environmental noise impact assessments involving the use of cumulative noise exposure metrics, such as the average-daily noise level (CNEL) and equivalent continuous noise level (L_{eq}).

As previously stated, the approach used in this noise study recognizes *that there is no single noise increase that renders the noise impact significant*, based on a 2008 California Court of Appeal ruling on Gray v. County of Madera. (12) For example, if the ambient noise environment is quiet (<60 dBA) and the new noise source greatly increases the noise levels, an impact may occur if the noise criteria may be exceeded. Therefore, for this analysis, FICON identifies a *readily perceptible* 5 dBA or greater project-related noise level increase is considered a significant impact when the noise criteria for a given land use is exceeded. Per the FICON, in areas where the without project noise levels range from 60 to 65 dBA, a 3 dBA *barely perceptible* noise level increase appears to be appropriate for most people. When the without project noise levels already exceed 65 dBA, any increase in community noise louder than 1.5 dBA or greater is considered a significant impact if the noise criteria for a given land use is exceeded, since it likely contributes to an existing noise exposure exceedance.

The FICON guidance provides an established source of criteria to assess the impacts of substantial temporary or permanent increase in ambient noise levels. Based on the FICON criteria, the amount to which a given noise level increase is considered acceptable is reduced when the without Project noise levels are already shown to exceed certain land-use specific exterior noise level criteria. The specific levels are based on typical responses to noise level increases of 5 dBA or *readily perceptible*, 3 dBA or *barely perceptible*, and 1.5 dBA depending on the underlying without Project noise levels for noise-sensitive uses. These levels of increases and their perceived acceptance are consistent with guidance provided by both the Federal Highway Administration (4 p. 9) and Caltrans (14 p. 2_48).

4.3 SIGNIFICANCE CRITERIA SUMMARY

Noise impacts shall be considered significant if any of the following occur as a direct result of the proposed development. Table 4-1 shows the significance criteria summary matrix.

TABLE 4-1: SIGNIFICANCE CRITERIA SUMMARY

Analysis	Receiving Land Use	Condition(s)	Significance Criteria	
			Daytime	Nighttime
Off-Site Traffic[1]	Noise-Sensitive	If ambient is < 60 dBA CNEL	≥ 5 dBA CNEL Project increase	
		If ambient is 60 - 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
		If ambient is > 65 dBA CNEL	≥ 1.5 dBA CNEL Project increase	
Operational	Noise-Sensitive	Exterior Noise Level Standards[2]	65 dBA CNEL	
		If ambient is > 65 dBA CNEL	≥ 3 dBA CNEL Project increase	
Construction	Noise-Sensitive	Noise Level Threshold[3]	80 dBA L_{eq}	n/a
		Vibration Threshold[4]	0.3 PPV (in/sec)	

[1] FICON, 1992.
[2] City of Blythe General Plan Noise Element.
[3] FTA 2018
[4] Caltrans 2013.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.; "PPV" = Peak Particle Velocity

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5 EXISTING NOISE LEVEL MEASUREMENTS

To assess the existing noise level environment, 24-hour noise level measurements were taken at four locations in the Project study area. The receiver locations were selected to describe and document the existing noise environment within the Project study area. Exhibit 5-A provides the boundaries of the Project study area and the noise level measurement locations. To fully describe the existing noise conditions, noise level measurements were collected by Urban Crossroads, Inc. on Wednesday, November 10, 2021. Appendix 5.1 includes study area photos.

5.1 MEASUREMENT PROCEDURE AND CRITERIA

To describe the existing noise environment, the hourly noise levels were measured during typical weekday conditions over a 24-hour period. By collecting individual hourly noise level measurements, it is possible to describe the daytime and nighttime hourly noise levels and calculate the 24-hour CNEL. The long-term noise readings were recorded using Piccolo Type 2 integrating sound level meter and dataloggers. The Piccolo sound level meters were calibrated using a Larson-Davis calibrator, Model CAL 150. All noise meters were programmed in "slow" mode to record noise levels in "A" weighted form. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013 (15).

5.2 NOISE MEASUREMENT LOCATIONS

The long-term noise level measurements were positioned as close to the nearest sensitive receiver locations as possible to assess the existing ambient hourly noise levels surrounding the Project site. Both Caltrans and the FTA recognize that it is not reasonable to collect noise level measurements that can fully represent every part of a private yard, patio, deck, or balcony normally used for human activity when estimating impacts for new development projects. This is demonstrated in the Caltrans general site location guidelines which indicate that, *sites must be free of noise contamination by sources other than sources of interest. Avoid sites located near sources such as barking dogs, lawnmowers, pool pumps, and air conditioners unless it is the express intent of the analyst to measure these sources*. (2) Further, FTA guidance states, t*hat it is not necessary nor recommended that existing noise exposure be determined by measuring at every noise-sensitive location in the project area. Rather, the recommended approach is to characterize the noise environment for clusters of sites based on measurements or estimates at representative locations in the community*. (8)

Based on recommendations of Caltrans and the FTA, it is not necessary to collect measurements at each individual building or residence, because each receiver measurement represents a group of buildings that share acoustical equivalence. (8) In other words, the area represented by the receiver shares similar shielding, terrain, and geometric relationship to the reference noise source. Receivers represent a location of noise sensitive areas and are used to estimate the future noise level impacts. Collecting reference ambient noise level measurements at the nearby

sensitive receiver locations allows for a comparison of the before and after Project noise levels and is necessary to assess potential noise impacts due to the Project's contribution to the ambient noise levels.

5.3 NOISE MEASUREMENT RESULTS

The noise measurements presented below focus on the average or equivalent sound levels (L_{eq}). The equivalent sound level (L_{eq}) represents a steady state sound level containing the same total energy as a time varying signal over a given sample period. Table 5-1 identifies the hourly daytime (7:00 a.m. to 10:00 p.m.) and nighttime (10:00 p.m. to 7:00 a.m.) noise levels at each noise level measurement location. Appendix 5.2 provides a summary of the existing hourly ambient noise levels.

TABLE 5-1: 24-HOUR AMBIENT NOISE LEVEL MEASUREMENTS

Location[1]	Description	Energy Average Noise Level (dBA L_{eq})[2]		CNEL (dBA)
		Daytime	Nighttime	
L1	Located north of the Project site near single-family residence at 301 San Jacinto Way.	47.5	49.8	68.0
L2	Located east of the Project site near Red Roof Inn Blythe at 850 West Hobsonway.	65.1	59.8	68.0
L3	Located west of the Project site near single-family residence at 1720 West Hobsonway.	51.1	53.7	60.0
L4	Located west of the Project site near single-family residence at 1926 West Hobsonway.	62.3	60.4	67.5

[1] See Exhibit 5-A for the noise level measurement locations.
[2] Energy (logarithmic) average levels. The long-term 24-hour measurement worksheets are included in Appendix 5.2.
"Daytime" = 7:00 a.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

Table 5-1 provides the (energy average) noise levels used to describe the daytime and nighttime ambient conditions. These daytime and nighttime energy average noise levels represent the average of all hourly noise levels observed during these time periods expressed as a single number. Appendix 5.2 provides summary worksheets of the noise levels for each hour as well as the minimum, maximum, L_1, L_2, L_5, L_8, L_{25}, L_{50}, L_{90}, L_{95}, and L_{99} percentile noise levels observed during the daytime and nighttime periods. The background ambient noise levels in the Project study area are dominated by the transportation-related noise associated with surface streets in addition to background industrial land use activities. This includes the auto and heavy truck activities on study area roadway segments near the noise level measurement locations.

EXHIBIT 5-A: NOISE MEASUREMENT LOCATIONS



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6 METHODS AND PROCEDURES

The following section outlines the methods and procedures used to model and analyze the future traffic noise environment. Consistent with the *Land Use Compatibility Criteria*, all transportation related noise levels are presented in terms of the 24-hour CNEL's.

6.1 FHWA TRAFFIC NOISE PREDICTION MODEL

The expected roadway noise level increases from vehicular traffic were calculated by Urban Crossroads, Inc. using a computer program that replicates the Federal Highway Administration (FHWA) Traffic Noise Prediction Model- FHWA-RD-77-108. (16) The FHWA Model arrives at a predicted noise level through a series of adjustments to the Reference Energy Mean Emission Level (REMEL). In California the national REMELs are substituted with the California Vehicle Noise (Calveno) Emission Levels. (17) Adjustments are then made to the REMEL to account for: the roadway classification (e.g., collector, secondary, major or arterial), the roadway active width (i.e., the distance between the center of the outermost travel lanes on each side of the roadway), the total average daily traffic (ADT), the travel speed, the percentages of automobiles, medium trucks, and heavy trucks in the traffic volume, the roadway grade, the angle of view (e.g., whether the roadway view is blocked), the site conditions ("hard" or "soft" relates to the absorption of the ground, pavement, or landscaping), and the percentage of total ADT which flows each hour throughout a 24-hour period. Research conducted by Caltrans has shown that the use of soft site conditions is appropriate for the application of the FHWA traffic noise prediction model used in this analysis. (18)

6.2 OFF-SITE TRAFFIC NOISE PREDICTION MODEL INPUTS

Table 6-1 presents the roadway parameters used to assess the Project's off-site transportation noise impacts. Table 6-1 identifies the six off-site study area roadway segments, the distance from the centerline to adjacent land use based on the functional roadway classifications per the City of Blythe General Plan Circulation Element, and the posted vehicle speeds. Consistent with the Traffic Impact Analysis prepared by Urban Crossroads, Inc. (19) the off-site traffic noise analysis includes the following traffic scenarios.

- Existing
- Existing Plus Project (E+P)
- Cumulative Year (2040)
- Cumulative Year With Project Conditions (2040+P)

The average daily traffic (ADT) volumes used for this study are presented on Table 6-1. Table 6-2 provides the time of day (daytime, evening, and nighttime) vehicle splits.

TABLE 6-1: OFF-SITE ROADWAY PARAMETERS

ID	Roadway	Segment	Receiving Land Use[1]	Classification[2]	Centerline Distance to Receiving Land Use (Feet)[3]	Vehicle Speed (mph)
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	Arterial	40'	45
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	Arterial	40'	45
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	Arterial	40'	45
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	Arterial	40'	45
5	Hobsonway	w/o Lovekin Blvd.	C-G	Arterial	55'	45
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	Arterial	55'	45
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	Local	30'	45
8	Neighbours Blvd.	s/o Hobsonway	C-G	Local	30'	45
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	Local	30'	45
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	Local	30'	45
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	Arterial	55'	45
12	Lovekin Blvd.	s/o Hobsonway	C-G	Arterial	55'	45

Note: I-S=service-industrial, A & AG= agricultural, C-G=general commercial, RV-VLRD=very low density residential, P-QP=public-quasi-public, LI-light industrial, R-M=medium density residential, EDR=estate density residential

[1] Based on a review of existing aerial imagery. Noise sensitive uses limited to existing residential land uses.

[2] City of Blythe and County of Riverside General Plan Land Use Elements.

[3] Based upon the right-of-way distances for each roadway classification provided in the General Plan Circulation Element.

TABLE 6-2: AVERAGE DAILY TRAFFIC VOLUMES

ID	Roadway	Segment	Average Daily Traffic Volumes[1]			
			Existing		Opening Year	
			Without Project	With Project	Without Project	With Project
1	Hobsonway	w/o Neighbours Blvd.	2,592	3,240	3,804	3,804
2	Hobsonway	w/o Defrain Blvd.	5,808	7,979	7,572	8,712
3	Hobsonway	e/o Defrain Blvd.	5,628	5,567	7,584	8,838
4	Hobsonway	e/o Project Driveway	5,628	7,666	7,596	8,622
5	Hobsonway	w/o Lovekin Blvd.	10,056	12,557	11,976	13,002
6	Hobsonway	e/o Lovekin Blvd.	12,996	15,637	15,912	16,368
7	Neighbours Blvd.	n/o Hobsonway	312	344	1,080	1,080
8	Neighbours Blvd.	s/o Hobsonway	2,136	3,572	4,224	5,364
9	Neighbours Blvd.	s/o I-10 WB Ramp	2,136	3,573	4,596	5,736
10	Neighbours Blvd.	s/o I-10 EB Ramp	2,712	3,661	10,632	11,259
11	Lovekin Blvd.	n/o Hobsonway	6,816	9,000	9,360	9,588
12	Lovekin Blvd.	s/o Hobsonway	13,284	15,699	15,768	16,110

[1] Edelweiss Sustainable Farms Traffic Analysis, Urban Crossroads, Inc.

TABLE 6-3: TIME OF DAY VEHICLE SPLITS

Vehicle Type	Time of Day Splits[1]			Total of Time of Day Splits
	Daytime	Evening	Nighttime	
Autos	77.50%	12.90%	9.60%	100.00%
Medium Trucks	84.80%	4.90%	10.30%	100.00%
Heavy Trucks	86.50%	2.70%	10.80%	100.00%

[1] Typical Southern California vehicle mix.
"Daytime" = 7:00 a.m. to 7:00 p.m.; "Evening" = 7:00 p.m. to 10:00 p.m.; "Nighttime" = 10:00 p.m. to 7:00 a.m.

6.3 STATIONARY AND CONSTRUCTION NOISE PREDICTION MODEL

6.3.1 CADNAA NOISE PREDICTION MODEL

To fully describe the exterior operational and construction noise levels from the Project, Urban Crossroads, Inc. developed a noise prediction model using the CadnaA (Computer Aided Noise Abatement) computer program. CadnaA can analyze multiple types of noise sources using the spatially accurate Project site plan, georeferenced Nearmap aerial imagery, topography, buildings, and barriers in its calculations to predict outdoor noise levels. The model for this analysis did not incorporate existing or future topography.

Using the ISO 9613 protocol, CadnaA will calculate the distance from each noise source to the noise receiver locations, using the ground absorption, distance, and barrier/building attenuation inputs to provide a summary of noise level at each receiver and the partial noise level contributions by noise source. Consistent with the ISO 9613 protocol, the CadnaA noise prediction model relies on the reference sound power level (L_w) to describe individual noise sources. While sound pressure levels (e.g. L_{eq}) quantify in decibels the intensity of given sound sources at a reference distance, sound power levels (L_w) are connected to the sound source and are independent of distance. Sound pressure levels vary substantially with distance from the source and diminish because of intervening obstacles and barriers, air absorption, wind, and other factors. Sound power is the acoustical energy emitted by the sound source and is an absolute value that is not affected by the environment.

The noise level calculations provided in this noise study account for the distance attenuation provided due to geometric spreading, when sound from a localized stationary source (i.e., a point source) propagates uniformly outward in a spherical pattern. A default ground attenuation factor of 0.5 was used in the noise analysis to account for mixed ground representing a combination of hard and soft surfaces.

6.3.2 OPERATIONAL NOISE SOURCES

This operational noise analysis is intended to describe noise level impacts associated with the expected typical activity at the Project site. To present the potential worst-case noise conditions, this analysis assumes the Project would be operational 24 hours per day, seven days per week. Consistent with similar cannabis cultivation facilities, the Project business operations would

primarily be conducted within the enclosed buildings. The on-site Project-related noise sources are expected to include: roof-top air conditioning units, ventilation fans, and trash enclosure activity.

TRASH ENCLOSURE ACTIVITY

The trash enclosure reference noise level measurements presented in this section were collected using a Larson Davis LxT Type 1 precisions sound level meter (serial number 01146). The LxT sound level meter was calibrated using a Larson-Davis calibrator, Model CAL 200, was programmed in "slow" mode to record noise levels in "A" weighted form and was located at approximately five feet above the ground elevation for each measurement. The sound level meters and microphones were equipped with a windscreen during all measurements. All noise level measurement equipment satisfies the American National Standards Institute (ANSI) standard specifications for sound level meters ANSI S1.4-2014/IEC 61672-1:2013 (15).

To describe the noise levels associated with a trash enclosure activity, Urban Crossroads collected a reference noise level measurement at an existing trash enclosure containing two dumpster bins. The trash enclosure noise levels describe metal gates opening and closing, metal scraping against concrete floor sounds, dumpster movement on metal wheels, and trash dropping into the metal dumpster. The reference noise levels describe trash enclosure noise activities when trash is dropped into an empty metal dumpster, as would occur at the Project Site. The measured reference noise level at the uniform 50-foot reference distance is 57.3 dBA L_{eq} for the trash enclosure activity. The reference noise level describes the expected noise source activities associated with the trash enclosures for the Project's proposed building. Typical trash enclosure activities are estimated to occur for 10 minutes per hour.

ROOF-TOP UNITS

The primary noise sources on-site would be the heating, ventilation, and air conditioning (HVAC) for the cultivation and office spaces. For modeling purposes, each building is assumed to have a small 2-foot-high parapet on the roof. Each building is anticipated to have an array of HVAC units equivalent to approximately 652 tons per building, estimated at two 1-ton units, three 1.5-ton units, three 2.5-ton units, one 3-ton units, one 7.5-ton units, one 8.5-ton units, one 10-ton unit, and twenty-four 25-ton units. Each roof would also have six-teen ½ horsepower and 2 ¼ horsepower fans. Building one would have one additional 8.5-ton HVAC unit and one additional ¼ horsepower fan. At this time the specific make and model of the equipment has not been selected, thus for noise assessment purposes the units were modeled based on available data for commercial rooftop packaged HVACV units and ventilation fans as sample units. Manufacturer sheets for sample units with relevant noise level data are provided in Appendix 6.1. Noise levels assigned to each HVAC unit is summarized in Table 6-4.

REFERENCE NOISE LEVELS

To estimate the Project operational noise impacts, reference noise level measurements were collected from similar types of activities to represent the noise levels expected with the development of the proposed Project or from manufacturers specification sheets. This section

provides a detailed description of the reference noise levels shown on Table 6-4 used to estimate the Project operational noise impacts. It is important to note that the following projected noise levels assume the worst-case noise environment with the roof-top air conditioning units, ventilation fans, and trash enclosure activity all operating continuously. These sources of noise activity will likely vary throughout the day.

TABLE 6-4: OPEARTON REFERENCE NOISE LEVELS

Noise Source[1]	Noise Source Height (Feet)	Source Type	Min./Hour[2]			Reference Noise Level (dBA L_{eq}) @ 50 Feet	Sound Power Level (dBA)[3]
			Day	Evening	Night		
Trash Enclosure Activity	5'	Point	10	10	10	48.0	89.0
25-Ton AC	3'	Point	60	60	60	62.4	94.0
7.5 to 10-Ton AC	3'	Point	60	60	60	56.4	88.0
1 to 3-Ton	3'	Point	60	60	60	42.4	74.0
Ventialtion Fan 1/2 HP	1'	Point	60	60	60	34.6	66.2
Ventialtion Fan 1/4 HP	1'	Point	60	60	60	26.6	58.2

[1] As measured by Urban Crossroads, Inc.

[2] Anticipated duration (minutes within the hour) of noise activity during typical hourly conditions expected at the Project site. "Daytime" = 7:00 a.m. - 10:00 p.m.; "Nighttime" = 10:00 p.m. - 7:00 a.m.

[3] Sound power level represents the total amount of acoustical energy (noise level) produced by a sound source independent of distance or surroundings. Sound power levels calculated using the CadnaA noise model at the reference distance to the noise source. Numbers may vary due to size differences between point and area noise sources.

6.3.3 TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS

To describe peak construction noise activities, this construction noise analysis was prepared using reference noise level measurements published as part of the FHWA Road Construction Noise Model (RCNM) (20). The RCNM database provides a comprehensive source of reference construction noise levels. Table 6-5 provides a summary of the RCNM construction reference noise level measurements expressed in hourly average dBA L_{eq} using the estimated usage factors (21) to describe the typical construction activities for each stage of Project construction.

TABLE 6-5: TYPICAL CONSTRUCTION REFERENCE NOISE LEVELS

Construction Stage	Reference Construction Equipmnet[1]	Reference Noise Level @ 50 Feet (dBA L_{eq})	Composite Reference Noise Level (dBA L_{eq})	Reference Power Level (dBA L_w)
Demolition	Front End Loader	75.0	83.8	115.4
	All Other Equip	82.0		
	Excavator	77.0		
Site Preparation	Dozer	78.0	81.0	112.7
	Front End Loader	75.0		
	Front End Loader	75.0		
Grading	Dozer	78.0	81.8	113.5
	Excavator	77.0		
	Compactor (ground)	76.0		
Building Construction	Crane	73.0	81.1	112.8
	Tractor	80.0		
	Welder/Torch	70.0		
Paving	Paver	74.0	83.1	114.7
	All Other Equip	82.0		
	Roller	73.0		
Architectural Coating	Crane	73.0	77.4	109.1
	Compressor (air)	74.0		
	Generator (<25kVA)	70.0		

[1] FHWA Road Construction Noise Model.

6.4 CONSTRUCTION VIBRATION

Construction activity can result in varying degrees of ground vibration, depending on the equipment and methods used, distance to the affected structures and soil type. It is expected that ground-borne vibration from Project construction activities would cause only intermittent, localized intrusion. Ground-borne vibration levels resulting from typical construction activities occurring within the Project site were estimated by data published by the FTA. (8) However, while vehicular traffic is rarely perceptible, construction has the potential to result in varying degrees of temporary ground vibration, depending on the specific construction activities and equipment used. Ground vibration levels associated with various types of construction equipment are summarized on Table 11-4. Based on the representative vibration levels presented for various construction equipment types, it is possible to estimate the potential Project construction vibration levels using the following vibration assessment methods defined by the FTA. To describe the human response (annoyance) associated with vibration impacts the FTA provides the following equation: $PPV_{equip} = PPV_{ref} \times (25/D)^{1.5}$

TABLE 6-6: VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

Equipment	PPV (in/sec) at 25 feet
Small bulldozer	0.003
Jackhammer	0.035
Loaded Trucks	0.076
Large bulldozer	0.089

Federal Transit Administration, Transit Noise and Vibration Impact Assessment

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7 OFF-SITE TRANSPORTATION NOISE IMPACTS

To assess the off-site transportation CNEL noise level impacts associated with the proposed Project, noise contours were developed based on the *Edelweiss Sustainable Farms Traffic Impact Analysis*. (19) Noise contour boundaries represent the equal levels of noise exposure and are measured in CNEL from the center of the roadway.

7.1 TRAFFIC NOISE CONTOURS

Noise contours were used to assess the Project's incremental traffic-related noise impacts at land uses adjacent to roadways conveying Project traffic. The noise contours represent the distance to noise levels of a constant value and are measured from the center of the roadway for the 70, 65, and 60 dBA noise levels. The noise contours do not consider the effect of any existing noise barriers or topography that may attenuate ambient noise levels. In addition, because the noise contours reflect modeling of vehicular noise on area roadways, they appropriately do not reflect noise contributions from the surrounding stationary noise sources within the Project study area. Tables 7-1 to 7-4 present a summary of the exterior traffic noise levels for each traffic condition. Appendix 7.1 includes the traffic noise level contours worksheets for each traffic condition.

TABLE 7-1: EXISTING WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	62.1	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	65.6	RW	RW	94
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	RW	RW	92
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	65.5	RW	RW	92
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.0	RW	RW	138
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.1	RW	RW	164
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	54.8	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	63.2	RW	RW	RW
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	63.2	RW	RW	RW
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	64.2	RW	RW	RW
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	64.3	RW	RW	RW
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.2	RW	RW	167

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-2: EXISTING WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.1	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	67.0	RW	RW	117
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	RW	RW	92
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	RW	RW	114
5	Hobsonway	w/o Lovekin Blvd.	C-G	67.0	RW	RW	160
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.9	RW	RW	186
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	55.2	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	65.4	RW	RW	69
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	65.4	RW	RW	69
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	65.5	RW	RW	70
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.5	RW	RW	129
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.9	RW	RW	186

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-3: CUMULATIVE YEAR (2040) WITHOUT PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.8	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	66.7	RW	RW	113
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	66.8	RW	RW	113
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	RW	RW	113
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.8	RW	RW	155
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	68.0	RW	RW	188
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	60.2	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	66.1	RW	RW	77
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	66.5	RW	RW	81
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	70.1	RW	66	142
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.7	RW	RW	132
12	Lovekin Blvd.	s/o Hobsonway	C-G	68.0	RW	RW	187

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.

[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.

"RW" = Location of the respective noise contour falls within the right-of-way of the road.

TABLE 7-4: CUMULATIVE YEAR (2035) WITH PROJECT NOISE CONTOURS

ID	Road	Segment	Receiving Land Use[1]	CNEL at Nearest Receiving Land Use (dBA)[2]	Distance to Contour from Centerline (Feet)		
					70 dBA CNEL	65 dBA CNEL	60 dBA CNEL
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.8	RW	RW	RW
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	67.4	RW	RW	124
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	67.4	RW	RW	125
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	67.3	RW	RW	123
5	Hobsonway	w/o Lovekin Blvd.	C-G	67.1	RW	RW	164
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	68.1	RW	RW	191
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	60.2	RW	RW	RW
8	Neighbours Blvd.	s/o Hobsonway	C-G	67.2	RW	RW	90
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	67.4	RW	RW	94
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	70.4	RW	68	147
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.8	RW	RW	134
12	Lovekin Blvd.	s/o Hobsonway	C-G	68.1	RW	RW	189

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the nearest receiving land use.
"RW" = Location of the respective noise contour falls within the right-of-way of the road.

7.2 EXISTING PROJECT TRAFFIC NOISE LEVEL INCREASES

An analysis of existing traffic noise levels plus traffic noise generated by the proposed Project has been included in this report to fully analyze all the existing traffic scenarios identified in the *Edelweiss Sustainable Farms Traffic Impact Analysis*. This condition is provided solely for informational purposes and will not occur, since the Project will not be fully developed and occupied under Existing conditions. Table 7-1 shows the Existing without Project conditions CNEL noise levels. The Existing without Project exterior noise levels are expected to range from 54.8 to 67.2 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-2 shows the Existing with Project conditions will range from 55.2 to 67.9 dBA CNEL. Table 7-5 shows that the Project off-site traffic noise level impacts will range from 0.0 to 2.2 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.

7.3 CUMULATIVE YEAR (2040) PROJECT TRAFFIC NOISE LEVEL INCREASES

Table 7-3 presents the Near Term without Project conditions CNEL noise levels. The Near Term without Project exterior noise levels are expected to range from 60.2 to 70.1 dBA CNEL, without accounting for any noise attenuation features such as noise barriers or topography. Table 7-4 shows the Near Term with Project conditions will range from 60.2 to 70.4 dBA CNEL. Table 7-6

shows that the Project off-site traffic noise level increases will range from 0.0 to 1.1 dBA CNEL. Based on the significance criteria for off-site traffic noise presented in Table 4-1, land uses adjacent to the study area roadway segments would experience *less than significant* noise level increases on receiving land uses due to the Project-related traffic.

TABLE 7-5: EXISTING WITH PROJECT TRAFFIC NOISE LEVEL INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	62.1	63.1	1.0	Yes	3.0	No
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	65.6	67.0	1.4	Yes	1.5	No
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	65.5	65.5	0.0	Yes	1.5	No
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	65.5	66.8	1.3	Yes	1.5	No
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.0	67.0	1.0	No	n/a	No
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	67.1	67.9	0.8	No	n/a	No
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	54.8	55.2	0.4	Yes	5.0	No
8	Neighbours Blvd.	s/o Hobsonway	C-G	63.2	65.4	2.2	No	n/a	No
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	63.2	65.4	2.2	No	n/a	No
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	64.2	65.5	1.3	Yes	3.0	No
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	64.3	65.5	1.2	Yes	3.0	No
12	Lovekin Blvd.	s/o Hobsonway	C-G	67.2	67.9	0.7	No	n/a	No

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

TABLE 7-6: CUMULATIVE YEAR WITH PROJECT TRAFFIC NOISE INCREASES

ID	Road	Segment	Receiving Land Use[1]	CNEL at Receiving Land Use (dBA)[2]			Noise-Sensitive Land Use?	Incremental Noise Level Increase Threshold[3]	
				No Project	With Project	Project Addition		Limit	Exceeded?
1	Hobsonway	w/o Neighbours Blvd.	I-S, A, C-G	63.8	63.8	0.0	Yes	3.0	No
2	Hobsonway	w/o Defrain Blvd.	R-R, A, C-G	66.7	67.4	0.7	Yes	1.5	No
3	Hobsonway	e/o Defrain Blvd.	C-G, RV-VLDR	66.8	67.4	0.6	Yes	1.5	No
4	Hobsonway	e/o Project Driveway	C-G, RV-VLDR	66.8	67.3	0.5	Yes	1.5	No
5	Hobsonway	w/o Lovekin Blvd.	C-G	66.8	67.1	0.3	No	n/a	No
6	Hobsonway	e/o Lovekin Blvd.	C-G, P-QP	68.0	68.1	0.1	No	n/a	No
7	Neighbours Blvd.	n/o Hobsonway	A, C-G	60.2	60.2	0.0	Yes	3.0	No
8	Neighbours Blvd.	s/o Hobsonway	C-G	66.1	67.2	1.1	No	n/a	No
9	Neighbours Blvd.	s/o I-10 WB Ramp	Roadway	66.5	67.4	0.9	No	n/a	No
10	Neighbours Blvd.	s/o I-10 EB Ramp	CT, LI, RC-EDR, AG	70.1	70.4	0.3	Yes	1.5	No
11	Lovekin Blvd.	n/o Hobsonway	C-G, R-M	65.7	65.8	0.1	Yes	1.5	No
12	Lovekin Blvd.	s/o Hobsonway	C-G	68.0	68.1	0.1	No	n/a	No

[1] Based on a review of the General Plan Land Use Map. Noise sensitive uses limited to existing residential land uses.
[2] The CNEL is calculated at the boundary of the right-of-way of each roadway and the property line of the receiving land use.
[3] Does the Project create an incremental noise level increase exceeding the significance criteria (Table 4-1)?

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8 SENSITIVE RECEIVER LOCATIONS

To assess the potential for long-term operational and short-term construction noise impacts, the following sensitive receiver locations, as shown on Exhibit 8-A, were identified as representative locations for analysis. Sensitive receivers are generally defined as locations where people reside or where the presence of unwanted sound could otherwise adversely affect the use of the land. Noise-sensitive land uses are generally considered to include schools, hospitals, single-family dwellings, mobile home parks, churches, libraries, and recreation areas. Moderately noise-sensitive land uses typically include multi-family dwellings, hotels, motels, dormitories, out-patient clinics, cemeteries, golf courses, country clubs, athletic/tennis clubs, and equestrian clubs. Land uses that are considered relatively insensitive to noise include business, commercial, and professional developments. Land uses that are typically not affected by noise include: industrial, manufacturing, utilities, agriculture, undeveloped land, parking lots, warehousing, liquid and solid waste facilities, salvage yards, and transit terminals.

To describe the potential off-site Project noise levels, four receiver locations in the vicinity of the Project site were identified. All distances are measured from the Project site boundary to the outdoor living areas (e.g., private backyards) or at the building façade, whichever is closer to the Project site. The selection of receiver locations is based on FHWA guidelines and is consistent with additional guidance provided by Caltrans and the FTA, as previously described in Section 5.2. Other sensitive land uses in the Project study area that are located at greater distances than those identified in this noise study will experience lower noise levels than those presented in this report due to the additional attenuation from distance and the shielding of intervening structures. Distance is measured in a straight line from the project boundary to each receiver location.

R1: Location R1 represents existing noise sensitive residence at 301 San Jacinto Way, approximately 1,395 feet northeast of the Project site. Receiver R1 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L1, to describe the existing ambient noise environment.

R2: Location R2 represents the existing noise sensitive Red Roof Inn Blythe at 850 West Hobsonway, approximately 1,529 feet east of the Project site. Since there are no private outdoor living areas (backyards) facing the Project site, receiver R2 is placed at the building façade. A 24-hour noise measurement was taken near this location, L2, to describe the existing ambient noise environment.

R3: Location R3 represents existing noise sensitive residence at 1720 West Hobsonway, approximately 46 feet west of the Project site. Receiver R3 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L3, to describe the existing ambient noise environment.

R4: Location R4 represents existing noise sensitive residence at 1926 West Hobsonway, approximately 1,476 feet west of the Project site. Receiver R4 is placed at the private outdoor living areas (backyards) facing the Project site. A 24-hour noise measurement was taken near this location, L4, to describe the existing ambient noise environment.

EXHIBIT 8-A: SENSITIVE RECEIVER LOCATIONS



9 OPERATIONAL NOISE IMPACTS

This section analyzes the potential stationary-source operational noise impacts at the nearest receiver locations, identified in Section 8, resulting from the operation of the proposed Edelweiss Sustainable Farms Project. Exhibit 9-A identifies the representative noise source locations used to assess the operational noise levels.

9.1 PROJECT OPERATIONAL NOISE LEVELS

Using the reference noise levels to represent the proposed Project operations that include roof-top air conditioning units, ventilation fans, and trash enclosure activity, Urban Crossroads, Inc. calculated the operational source noise levels that are expected to be generated at the Project site and the Project-related noise level increases that would be experienced at each of the sensitive receiver locations. Tables 9-1 shows the Project operational noise levels over a 24-hour period. The noise levels at the off-site receiver locations are expected to range from 46.7 to 57.7dBA CNEL.

TABLE 9-1: 24-HOUR PROJECT OPERATIONAL NOISE LEVELS

Noise Source[1]	Operational Noise Levels by Receiver Location (dBA CNEL)			
	R1	R2	R3	R4
Trash Enclosure Activity	20.6	19.3	28.1	19.5
Roof-Top Air Conditioning Units	46.7	47.1	57.7	46.7
Ventilation Fans	17.1	16.6	27.5	16.8
Total (All Noise Sources)	**46.7**	**47.1**	**57.7**	**46.7**

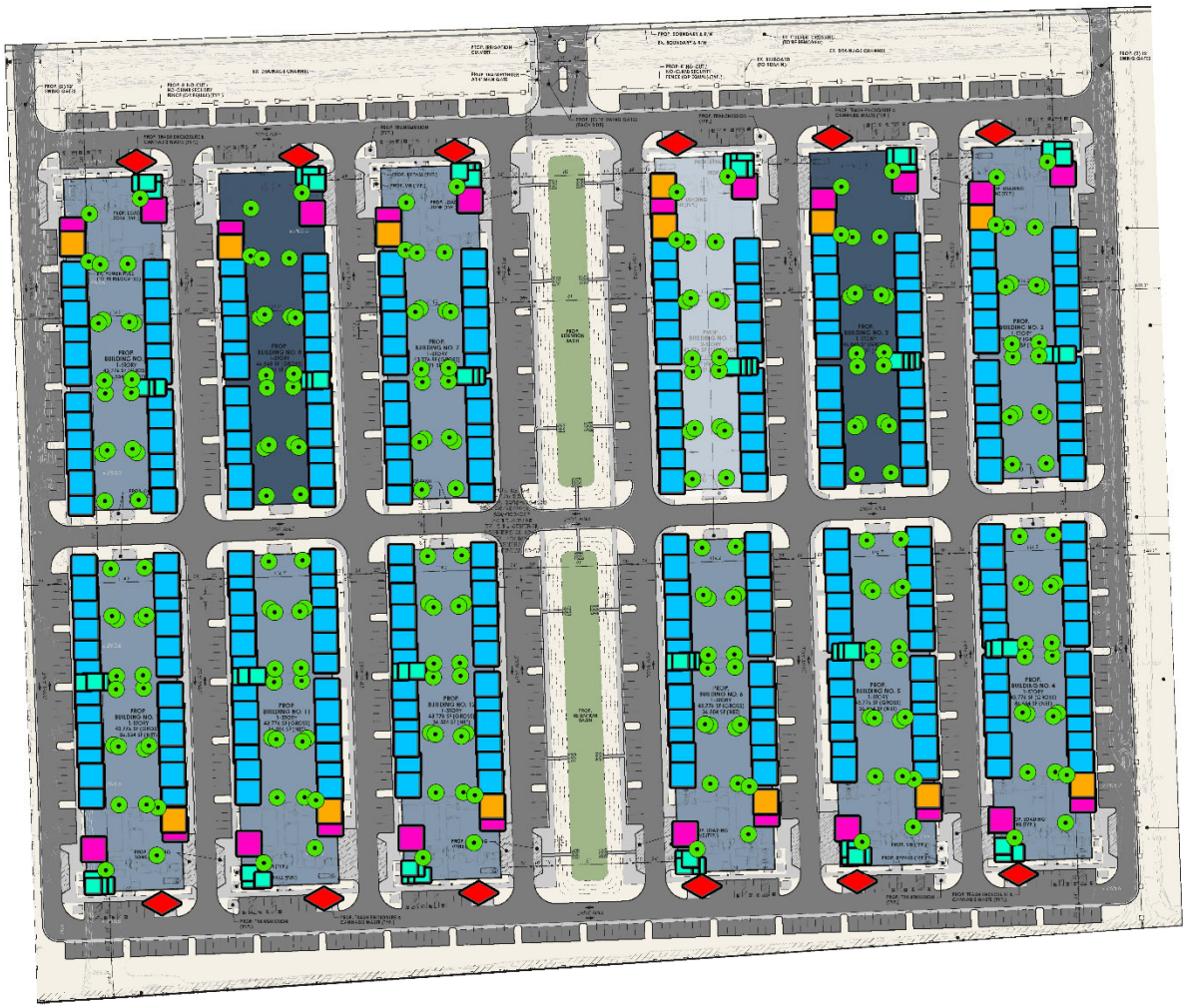
[1] See Exhibit 9-A for the noise source locations. CadnaA noise model calculations are included in Appendix 9.1.

Consistent with the City of Blythe General Plan Noise Element Policy NS-1-a, Project operational noise levels at the nearest sensitive receiver locations cannot exceed 65 dBA CNEL.

9.2 PROJECT OPERATIONAL NOISE LEVEL COMPLIANCE

To demonstrate compliance with local noise regulations, the Project-only operational noise levels are evaluated against exterior noise level thresholds based on the City of Blythe exterior noise level standards at nearby noise-sensitive receiver locations. Table 9-2 shows the operational noise levels associated with Edelweiss Sustainable Farms Project will satisfy the City of Blythe 24-hour CNEL exterior noise level standards at all nearby receiver locations. Therefore, the operational noise impacts are considered *less than significant* at the nearby noise-sensitive receiver locations.

EXHIBIT 9-A: OPERATIONAL NOISE SOURCE LOCATIONS



LEGEND:

- 25 ton
- 10 ton
- 7.5-8.5 ton
- 1-3 ton
- 1/4-1/2 HP vent fan
- Trash Enclosure Activity

N

TABLE 9-2: OPERATIONAL NOISE LEVEL COMPLIANCE

Receiver Location[1]	Project Operational Noise Levels (dBA Leq)[2]	Noise Level Standards (dBA CNEL)[3]	Noise Level Standards Exceeded?[4]
R1	46.7	65	No
R2	47.1	65	No
R3	57.7	65	No
R4	46.7	65	No

[1] See Exhibit 9-A for the receiver locations.
[2] Proposed Project operational noise levels as shown on Table 10-1.
[3] City of Blythe General Plan, Noise Element.
[4] Do the estimated Project operational noise source activities exceed the noise level standards?

9.3 PROJECT OPERATIONAL NOISE LEVEL INCREASES

To describe the Project operational noise level increases, the Project operational noise levels are combined with the existing ambient noise levels measurements for the nearby receiver locations potentially impacted by Project operational noise sources. Since the units used to measure noise, decibels (dB), are logarithmic units, the Project-operational and existing ambient noise levels cannot be combined using standard arithmetic equations. (2) Instead, they must be logarithmically added using the following base equation:

$$SPL_{Total} = 10\log_{10}[10^{SPL1/10} + 10^{SPL2/10} + \ldots 10^{SPLn/10}]$$

Where "SPL1," "SPL2," etc. are equal to the sound pressure levels being combined, or in this case, the Project-operational and existing ambient noise levels. The difference between the combined Project and ambient noise levels describes the Project noise level increases to the existing ambient noise environment. As indicated in Table 9-3, the Project will generate operational noise level increases ranging from 0.0 to 2.0 dBA at the nearest receiver locations. Project-related operational noise level increases will satisfy the operational noise level increase significance criteria presented on Table 4-1. Therefore, the incremental Project operational noise level increase is considered *less than significant* at all receiver locations.

TABLE 9-3: 24-HR (CNEL) OPERATIONAL NOISE LEVEL INCREASES

Receiver Location[1]	Total Project Operational Noise Level[2]	Measurement Location[3]	Reference Ambient Noise Levels[4]	Combined Project and Ambient[5]	Project Increase[6]	Increase Criteria	Increase Criteria Exceeded?
R1	46.7	L1	49.8	51.5	1.7	5.0	No
R2	47.1	L2	68.0	68.0	0.0	1.5	No
R3	57.7	L3	60.0	62.0	2.0	5.0	No
R4	46.7	L4	62.9	63.0	0.1	3.0	No

[1] See Exhibit 9-A for the receiver locations.
[2] Total Project nighttime operational noise levels as shown on Table 10-3.
[3] Reference noise level measurement locations as shown on Exhibit 5-A.
[4] Observed nighttime ambient noise levels as shown on Table 5-1.
[5] Represents the combined ambient conditions plus the Project activities.
[6] The noise level increase expected with the addition of the proposed Project activities.

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10 CONSTRUCTION IMPACTS

This section analyzes potential impacts resulting from the short-term construction activities associated with the development of the Project. Exhibit 10-A shows the construction noise source locations in relation to the nearest sensitive receiver locations previously described in Section 8.

Neither the City of Blythe General Plan Noise Element or Municipal Codes establish numeric maximum acceptable construction source noise levels at potentially affected receivers, which would allow for a quantified determination of what CEQA constitutes a *substantial temporary or permanent increase in ambient noise levels*. Therefore, the FTA noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to evaluate the potential Project-related construction noise level impacts at the nearby sensitive receiver locations.

10.1 CONSTRUCTION ACTIVITIES

Noise generated by the Project construction equipment will include a combination of trucks, power tools, concrete mixers, and portable generators that when combined can reach high levels. The number and mix of construction equipment is expected to occur in the following stages:

- Site Preparation
- Grading
- Building Construction
- Paving
- Architectural Coating

10.2 TYPICAL CONSTRUCTION NOISE ANALYSIS

Using the reference construction equipment noise levels and the CadnaA noise prediction model, calculations of the Project construction noise levels at the nearest sensitive receiver locations were completed. To assess the worst-case construction noise levels, the Project construction noise analysis relies on the highest combined noise level impacts at the closest point from the edge of primary construction activity (Project site boundary) to each receiver location. As shown on Table 10-1, the construction noise levels are expected to range from 45.8 to 64.5 dBA L_{eq}, and the highest construction levels are expected to range from 52.2 to 64.5 dBA L_{eq} at the nearest receiver locations. Appendix 10.1 includes the detailed CadnaA construction noise model inputs.

EXHIBIT 10-A: TYPICAL CONSTRUCTION NOISE SOURCE LOCATIONS



TABLE 10-1: TYPICAL CONSTRUCTION EQUIPMENT NOISE LEVEL SUMMARY

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})						
	Demolition	Site Preparation	Grading	Building Construction	Paving	Architectural Coating	Highest Levels[2]
R1	52.8	50.0	50.8	50.1	52.1	46.4	52.8
R2	52.2	49.4	50.2	49.5	51.5	45.8	52.2
R3	64.5	61.7	62.5	61.8	63.8	58.1	64.5
R4	52.3	49.5	50.3	49.6	51.6	45.9	52.3

[1] Construction noise source and receiver locations are shown on Exhibit 10-A.
[2] Construction noise level calculations based on distance from the project site boundaries (construction activity area) to nearby receiver locations. CadnaA construction noise model inputs are included in Appendix 10.1.

10.3 TYPICAL CONSTRUCTION NOISE LEVEL COMPLIANCE

To evaluate whether the Project will generate potentially significant short-term noise levels at nearest receiver locations, a construction-related daytime noise level threshold of 80 dBA L_{eq} is used as a reasonable threshold to assess the daytime construction noise level impacts. The construction noise analysis shows that the nearest receiver locations will satisfy the reasonable daytime 80 dBA L_{eq} significance threshold during Project construction activities as shown on Table 10-2. Therefore, the noise impacts due to Project construction noise is considered *less than significant* at all receiver locations.

TABLE 10-2: TYPICAL CONSTRUCTION NOISE LEVEL COMPLIANCE

Receiver Location[1]	Construction Noise Levels (dBA L_{eq})		
	Highest Construction Noise Levels[2]	Threshold[3]	Threshold Exceeded?[4]
R1	52.8	80	No
R2	52.2	80	No
R3	64.5	80	No
R4	52.3	80	No

[1] Noise receiver locations are shown on Exhibit 10-A.
[2] Highest construction noise level operating at the Project site boundary to nearby receiver locations (Table 10-2).
[3] Federal Transit Administration, Transit Noise and Vibration Impact Assessment Manual.
[4] Do the estimated Project construction noise levels exceed the construction noise level threshold?

10.4 CONSTRUCTION VIBRATION IMPACTS

Table 10-3 presents the expected Project related typical construction activity vibration levels at each of the nearest receiver locations. At distances ranging from 46 to 1,529 feet from the Project construction activity, the transient construction vibration velocity levels are estimated to range from 0.000 to 0.036 PPV in/sec. Based on maximum acceptable continuous vibration threshold of 0.30 PPV (in/sec) for older residential structures or commercial buildings, the typical Project construction vibration levels will satisfy the building damage thresholds at all the nearest receiver locations. In addition, the construction vibration analysis on Table 10-6 shows that the impacts will satisfy the *distinctly perceptible* maximum the continuous vibration human annoyance threshold of 0.3. PPV (in/sec) at all the nearest receiver locations. Therefore, the vibration impacts due to the typical Project construction activities are considered *less than significant*.

TABLE 10-3: TYPICAL PROJECT CONSTRUCTION VIBRATION LEVELS

Receiver Location[1]	Distance to Const. Activity (Feet)[2]	Typical Construction Vibration Levels PPV (in/sec)[3]					Thresholds PPV (in/sec)[4]	Thresholds Exceeded?[5]
		Small bulldozer	Jack-hammer	Loaded Trucks	Large Bulldozer	Highest Vibration Level		
R1	1,395'	0.000	0.000	0.000	0.000	0.000	0.30	No
R2	1,529'	0.000	0.000	0.000	0.000	0.000	0.30	No
R3	46'	0.001	0.014	0.030	0.036	0.036	0.30	No
R4	1,476'	0.000	0.000	0.000	0.000	0.000	0.30	No

[1] Construction receiver locations are shown on Exhibit 10-A.
[2] Distance from receiver location to Project construction boundary.
[3] Based on the Vibration Source Levels of Construction Equipment (Table 10-5).
[4] FTA 2018
[5] Does the peak vibration exceed the acceptable vibration thresholds?
"PPV" = Peak Particle Velocity

Moreover, the impacts at the site of the closest sensitive receivers are unlikely to be sustained during the entire construction period but will occur rather only during the times that heavy construction equipment is operating adjacent to the Project site perimeter.

11 CUMULATIVE

Noise is a localized occurrence and attenuates rapidly with distance. Therefore, only future development projects in the direct vicinity of the Project site could add to construction or stationary source noise generated by the project and result in a cumulative noise impact. The off-site traffic analysis includes a cumulative traffic analysis, thus traffic noise analysis isa cumulative assessment of the increase in traffic noise.

11.1 TEMPORARY/PERIODIC INCREASES IN AMBIENT NOISE LEVELS

The proposed Project would result in temporary noise increases during the construction period, as analyzed in Chapter 10, Construction Impacts. The proposed Project's construction period would have the potential to overlap with the related projects' construction processes. However, at distances greater than 100 feet construction activities would attenuate to approximately 70 dBA L_{eq}. If two Projects were under construction at the same time, 100 feet apart, the combined noise level would be less than 75 dBA L_{eq}, which would comply with the FTA 80 dBA L_{eq} threshold used to assess construction impacts. No projects are known within 100 feet of the proposed building site. Thus, the Project would not contribute to a cumulative increase. Therefore, the Project would not result in a cumulative noise level increase during construction.

11.2 PERMANENT INCREASES IN AMBIENT NOISE LEVELS

As with construction, because the generation of noise from stationary sources is a localized phenomenon, the proximity of related projects to the proposed Project is a key factor in the determination of potential cumulative impacts. Due to the decrease in noise levels with distance and the presence of physical barriers (the structures themselves, parapet walls, etc.), noise from other related projects would not combine with the proposed Project to produce a cumulative noise effect during operation.

Additionally, the Project's operations and those of the related projects would be subject to the City of Blythe Noise Control Ordinance, which limits the exterior noise levels at adjacent properties. Similarly, any related projects would be required to comply with the City of Blythe noise standards. The Project's contribution to operational noise impacts would not be cumulatively considerable, and cumulative impacts would be less than significant.

11.3 GROUNDBORNE VIBRATION

Due to the rapid attenuation characteristics of groundborne vibration, there is no potential for cumulative construction- or operational-period impacts with respect to groundborne vibration beyond 15 feet from the Project boundary. Therefore, potential cumulative groundborne vibration impacts with regard to human annoyance or potential for structural damage would be less than significant.

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12 REFERENCES

1. **State of California.** *California Environmental Quality Act, Appendix G.* 2018.
2. **California Department of Transportation Environmental Program.** *Technical Noise Supplement - A Technical Supplement to the Traffic Noise Analysis Protocol.* Sacramento, CA : s.n., September 2013.
3. **Environmental Protection Agency Office of Noise Abatement and Control.** *Information on Levels of Environmental Noise Requisite to Protect Public Health and Welfare with an Adequate Margin of Safety.* March 1974. EPA/ONAC 550/9/74-004.
4. **U.S. Department of Transportation, Federal Highway Administration, Office of Environment and Planning, Noise and Air Quality Branch.** *Highway Traffic Noise Analysis and Abatement Policy and Guidance.* December 2011.
5. **U.S. Department of Transportation, Federal Highway Administration.** *Highway Traffic Noise in the United States, Problem and Response.* April 2000. p. 3.
6. **U.S. Environmental Protection Agency Office of Noise Abatement and Control.** *Noise Effects Handbook-A Desk Reference to Health and Welfare Effects of Noise.* October 1979 (revised July 1981). EPA 550/9/82/106.
7. **U.S. Department of Transportation, Federal Transit Administration.** *Transit Noise and Vibration Impact Assessment.* May 2006. FTA-VA-90-1003-06.
8. —. *Transit Noise and Vibration Impact Assessment Manual.* September 2018.
9. **Office of Planning and Research.** *State of California General Plan Guidelines.* October 2017.
10. **City of Blythe.** *General Plan 2025, Noise Element.* Blythe : s.n., 2006.
11. **California Department of Transportation.** *Transportation and Construction Vibration Guidance Manual.* April 2020.
12. **California Court of Appeal.** *Gray v. County of Madera, F053661.* 167 Cal.App.4th 1099; - Cal.Rptr.3d, October 2008.
13. **Federal Interagency Committee on Noise.** *Federal Agency Review of Selected Airport Noise Analysis Issues.* August 1992.
14. **California Department of Transportation.** *Technical Noise Supplement.* November 2009.
15. **American National Standards Institute (ANSI).** *Specification for Sound Level Meters ANSI S1.4-2014/IEC 61672-1:2013.*
16. **U.S. Department of Transportation, Federal Highway Administration.** *FHWA Highway Traffic Noise Prediction Model.* December 1978. FHWA-RD-77-108.
17. **California Department of Transportation Environmental Program, Office of Environmental Engineering.** *Use of California Vehicle Noise Reference Energy Mean Emission Levels (Calveno REMELs) in FHWA Highway Traffic Noise Prediction.* September 1995. TAN 95-03.
18. **California Department of Transportation.** *Traffic Noise Attenuation as a Function of Ground and Vegetation Final Report.* June 1995. FHWA/CA/TL-95/23.
19. **Urban Crossroads, Inc.** *Hobsonway Cannabis Traffic Impact Analysis.* January 2022.
20. **Federal Highway Administration .** *Road Construction Noise Model Users Guide, version 1.0.* 2006.
21. **FHWA.** *Roadway Construction Noise Model.* January 2006.

13 CERTIFICATION

The contents of this noise study report represent an accurate depiction of the noise environment and impacts associated with the proposed Edelweiss Sustainable Farms Project. The information contained in this noise study report is based on the best available data at the time of preparation. If you have any questions, please contact me directly at (619) 788-1971.

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(619) 788-1971
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EDUCATION

Bachelor of Science in Urban and Regional Planning
California Polytechnic State University, Pomona • June 2000

PROFESSIONAL AFFILIATIONS

ASA – Acoustical Society of America
APA – American Planning Association
AWMA – Air and Waste Management Association

PROFESSIONAL CERTIFICATIONS

Approved Acoustical Consultant • County of San Diego
FHWA Traffic Noise Model of Training • November 2004
CadnaA Basic and Advanced Training Certificate • October 2008.

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APPENDIX 5.1:

STUDY AREA PHOTOS

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JN: 14338 Study Area Photos



L1_E
33, 36' 49.280000"114, 36' 50.830000"



L1_N
33, 36' 49.310000"114, 36' 50.860000"



L1_S
33, 36' 49.300000"114, 36' 50.830000"



L1_W
33, 36' 49.300000"114, 36' 50.860000"



L2_E
33, 36' 36.040000"114, 36' 33.340000"



L2_N
33, 36' 36.110000"114, 36' 33.370000"

JN: 14338 Study Area Photos



L2_S
33, 36' 36.060000"114, 36' 33.370000"



L2_W
33, 36' 36.040000"114, 36' 33.370000"



L3_E
33, 36' 33.490000"114, 37' 11.100000"



L3_N
33, 36' 33.570000"114, 37' 10.990000"



L3_S
33, 36' 33.520000"114, 37' 11.080000"



L3_W
33, 36' 33.480000"114, 37' 11.100000"

JN: 14338 Study Area Photos



L4_E
33, 36' 33.310000"114, 37' 23.380000"



L4_N
33, 36' 33.350000"114, 37' 23.440000"



L4_S
33, 36' 33.320000"114, 37' 23.380000"



L4_W
33, 36' 33.370000"114, 37' 23.330000"

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APPENDIX 5.2:

NOISE LEVEL MEASUREMENT WORKSHEETS

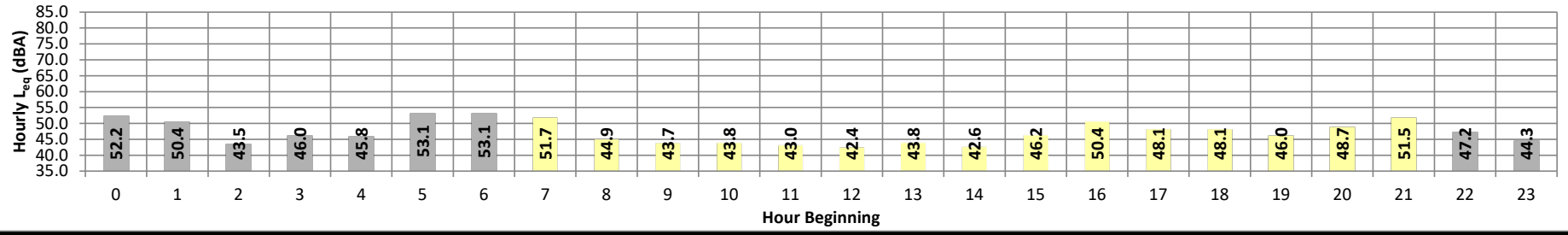
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24-Hour Noise Level Measurement Summary

Date: Wednesday, November 10, 2021 *Location:* L1 - Located northeast of the Project site near single-family *Meter:* Piccolo II *JN:* 14338

Project: Hobsonway Cannabis *Source:* residence at 301 San Jacinto Way. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	52.2	60.4	47.0	59.5	58.5	56.6	55.5	52.8	50.7	48.0	47.5	47.1	52.2	10.0	62.2
	1	50.4	59.1	41.8	58.3	57.6	55.7	54.6	51.7	47.4	42.5	42.2	41.9	50.4	10.0	60.4
	2	43.5	47.9	40.8	47.5	47.0	45.9	45.3	44.0	43.1	41.5	41.3	40.9	43.5	10.0	53.5
	3	46.0	55.1	38.6	54.4	53.9	52.0	49.8	46.4	43.5	39.5	39.1	38.7	46.0	10.0	56.0
	4	45.8	52.7	40.8	51.8	51.0	49.4	48.6	46.8	44.9	41.7	41.3	40.9	45.8	10.0	55.8
	5	53.1	58.0	49.3	57.7	57.5	56.7	56.1	53.8	52.3	50.3	49.9	49.5	53.1	10.0	63.1
	6	53.1	56.1	50.8	55.8	55.5	54.9	54.5	53.6	52.9	51.6	51.3	50.9	53.1	10.0	63.1
Day	7	51.7	55.8	49.0	55.5	55.1	54.4	53.8	52.2	51.3	49.7	49.4	49.1	51.7	0.0	51.7
	8	44.9	50.9	40.1	50.3	49.9	49.0	48.5	45.9	43.6	41.1	40.7	40.3	44.9	0.0	44.9
	9	43.7	49.1	40.2	48.7	48.2	47.2	46.6	44.5	42.7	41.0	40.7	40.3	43.7	0.0	43.7
	10	43.8	49.1	40.8	48.7	48.3	47.4	46.7	44.2	42.8	41.5	41.2	40.9	43.8	0.0	43.8
	11	43.0	51.3	38.2	50.3	49.4	47.8	46.7	43.2	41.2	39.0	38.6	38.3	43.0	0.0	43.0
	12	42.4	49.2	37.9	48.8	48.5	47.8	47.1	42.5	40.4	38.6	38.4	38.0	42.4	0.0	42.4
	13	43.8	50.6	40.1	50.2	49.8	48.8	48.1	43.6	41.9	40.6	40.4	40.2	43.8	0.0	43.8
	14	42.6	48.5	39.4	48.0	47.5	46.6	45.7	43.0	41.4	39.8	39.7	39.5	42.6	0.0	42.6
	15	46.2	53.7	42.9	52.7	51.5	49.8	48.8	46.5	45.1	43.6	43.3	43.0	46.2	0.0	46.2
	16	50.4	59.6	44.5	59.0	58.4	57.5	55.8	49.3	46.6	45.1	44.9	44.6	50.4	0.0	50.4
	17	48.1	53.5	44.7	53.1	52.7	51.7	51.0	48.5	47.0	45.5	45.2	44.8	48.1	0.0	48.1
	18	48.1	54.6	44.3	54.1	53.6	52.3	51.6	48.5	46.8	45.1	44.8	44.5	48.1	0.0	48.1
	19	46.0	53.6	42.9	52.6	51.7	49.8	48.7	46.2	44.8	43.6	43.3	43.0	46.0	5.0	51.0
	20	48.7	56.9	43.5	56.0	55.2	53.4	52.4	49.4	46.3	44.3	44.0	43.6	48.7	5.0	53.7
	21	51.5	59.0	44.0	58.2	57.6	56.5	55.6	52.8	49.7	45.0	44.6	44.1	51.5	5.0	56.5
Night	22	47.2	52.5	42.9	51.9	51.4	50.4	49.9	48.1	46.4	44.0	43.5	43.1	47.2	10.0	57.2
	23	44.3	48.4	41.9	47.9	47.5	46.7	46.3	44.9	43.8	42.5	42.2	42.0	44.3	10.0	54.3

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	42.4	48.5	37.9	48.0	47.5	46.6	45.7	42.5	40.4	38.6	38.4	38.0
	Max	51.7	59.6	49.0	59.0	58.4	57.5	55.8	52.8	51.3	49.7	49.4	49.1
Energy Average		47.5	Average:		52.4	51.8	50.7	49.8	46.7	44.8	42.9	42.6	42.3
Night	Min	43.5	47.9	38.6	47.5	47.0	45.9	45.3	44.0	43.1	39.5	39.1	38.7
	Max	53.1	60.4	50.8	59.5	58.5	56.7	56.1	53.8	52.9	51.6	51.3	50.9
Energy Average		49.8	Average:		53.9	53.3	52.0	51.2	49.1	47.2	44.6	44.2	43.9

L_{eq} (dBA)		
24-Hour	*Daytime (7am-10pm)*	*Nighttime (10pm-7am)*
48.5	**47.5**	**49.8**

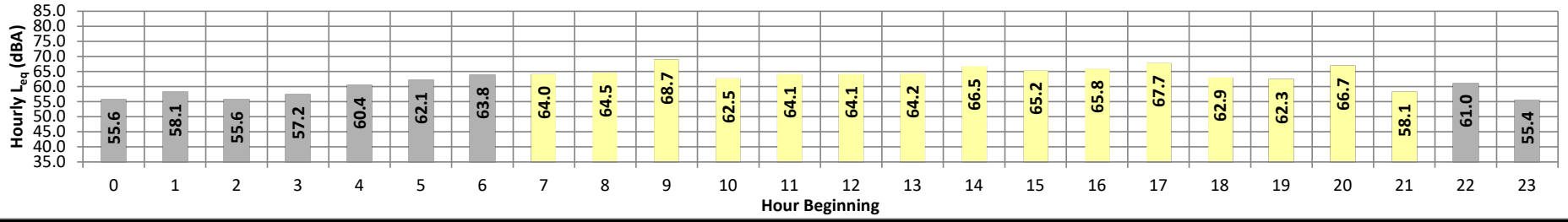
CNEL
56.2

24-Hour Noise Level Measurement Summary

Date: Wednesday, November 10, 2021 | *Location:* L2 - Located east of the Project site near Red Roof Inn Blythe | *Meter:* Piccolo II | *JN:* 14338

Project: Hobsonway Cannabis | *Source:* at 850 West Hobsonway. | *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	55.6	64.0	50.6	63.7	63.3	61.3	59.7	55.0	53.4	51.4	51.1	50.7	55.6	10.0	65.6
	1	58.1	68.6	47.6	68.2	67.6	65.7	62.9	56.1	52.6	48.5	48.1	47.7	58.1	10.0	68.1
	2	55.6	65.6	47.9	65.2	64.5	62.2	60.0	55.3	51.7	48.9	48.5	48.0	55.6	10.0	65.6
	3	57.2	71.5	43.3	70.5	69.0	64.3	60.3	50.8	46.7	44.2	43.8	43.4	57.2	10.0	67.2
	4	60.4	73.7	44.1	73.1	71.8	68.5	65.4	54.4	49.7	45.1	44.7	44.2	60.4	10.0	70.4
	5	62.1	72.3	52.4	72.0	71.4	69.4	67.2	60.9	57.3	53.7	53.1	52.5	62.1	10.0	72.1
	6	63.8	74.2	54.6	73.8	73.1	70.8	68.9	62.8	59.4	55.8	55.3	54.7	63.8	10.0	73.8
Day	7	64.0	74.3	51.7	73.8	73.2	71.0	69.1	63.6	59.1	53.0	52.3	51.8	64.0	0.0	64.0
	8	64.5	76.0	49.5	75.6	74.7	71.0	68.7	63.7	59.4	51.7	50.6	49.8	64.5	0.0	64.5
	9	68.7	81.6	49.7	81.2	80.3	76.6	72.9	64.3	60.1	52.4	51.1	49.9	68.7	0.0	68.7
	10	62.5	72.6	48.7	72.1	71.3	68.9	67.3	62.8	58.1	50.8	49.8	48.9	62.5	0.0	62.5
	11	64.1	74.5	49.8	73.8	72.9	70.6	69.2	64.0	59.9	52.2	51.1	50.0	64.1	0.0	64.1
	12	64.1	73.9	50.2	73.3	72.5	70.7	69.3	64.2	60.0	52.9	51.6	50.3	64.1	0.0	64.1
	13	64.2	74.5	50.2	74.2	73.4	71.0	68.8	64.0	60.0	52.7	51.4	50.4	64.2	0.0	64.2
	14	66.5	78.2	50.7	77.8	77.0	73.8	71.2	64.7	60.5	53.4	52.0	50.9	66.5	0.0	66.5
	15	65.2	76.3	51.4	75.6	74.6	71.9	69.7	64.8	60.7	53.4	52.4	51.6	65.2	0.0	65.2
	16	65.8	75.4	54.0	75.0	74.3	72.1	70.3	66.0	62.5	56.0	54.9	54.2	65.8	0.0	65.8
	17	67.7	80.0	53.1	79.4	78.3	75.4	72.3	65.1	60.7	55.0	53.9	53.2	67.7	0.0	67.7
	18	62.9	73.7	51.6	73.2	72.2	69.8	67.8	62.2	58.2	52.8	52.3	51.8	62.9	0.0	62.9
	19	62.3	73.6	50.7	73.0	72.1	69.7	67.4	60.5	56.3	52.1	51.4	50.8	62.3	5.0	67.3
	20	66.7	79.9	49.8	79.7	78.5	74.9	70.5	60.3	55.9	50.9	50.4	49.9	66.7	5.0	71.7
	21	58.1	68.4	48.3	68.1	67.5	65.1	63.3	57.2	53.0	49.2	48.8	48.4	58.1	5.0	63.1
Night	22	61.0	72.8	47.9	72.5	71.5	68.0	65.5	59.6	54.9	49.0	48.5	48.0	61.0	10.0	71.0
	23	55.4	65.0	48.9	64.7	64.1	62.0	60.0	54.4	51.7	49.7	49.4	49.1	55.4	10.0	65.4

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	58.1	68.4	48.3	68.1	67.5	65.1	63.3	57.2	53.0	49.2	48.8	48.4
	Max	68.7	81.6	54.0	81.2	80.3	76.6	72.9	66.0	62.5	56.0	54.9	54.2
Energy Average		65.1	Average:		75.0	74.2	71.5	69.2	63.2	58.9	52.6	51.6	50.8
Night	Min	55.4	64.0	43.3	63.7	63.3	61.3	59.7	50.8	46.7	44.2	43.8	43.4
	Max	63.8	74.2	54.6	73.8	73.1	70.8	68.9	62.8	59.4	55.8	55.3	54.7
Energy Average		59.8	Average:		69.3	68.5	65.8	63.3	56.6	53.0	49.6	49.1	48.7

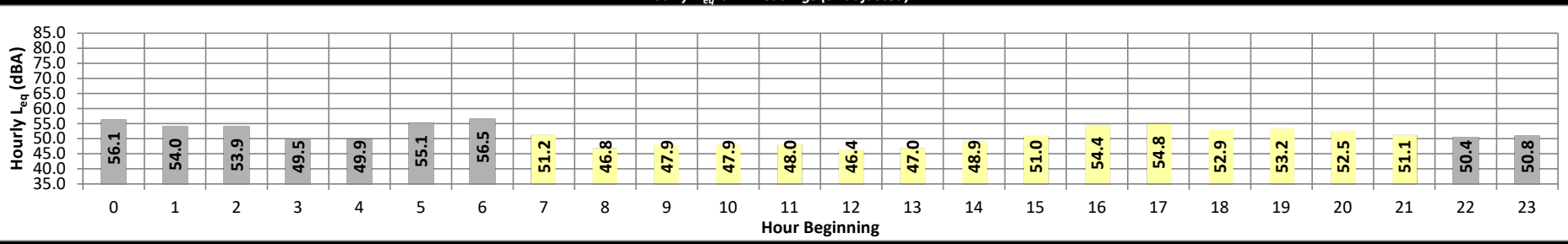
24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
63.8	65.1	59.8

24-Hour Noise Level Measurement Summary

Date: Wednesday, November 10, 2021 *Location:* L3 - Located west of the Project site near single-family *Meter:* Piccolo II *JN:* 14338

Project: Hobsonway Cannabis *Source:* residence at 1720 West Hobsonway. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	56.1	59.4	52.4	59.2	59.0	58.5	58.2	57.0	55.9	53.5	53.0	52.5	56.1	10.0	66.1
	1	54.0	60.4	48.7	60.2	59.9	58.7	58.1	54.2	52.5	49.9	49.4	48.9	54.0	10.0	64.0
	2	53.9	57.9	48.6	57.7	57.5	57.1	56.8	55.0	53.5	50.2	49.5	48.8	53.9	10.0	63.9
	3	49.5	57.2	44.4	56.4	55.7	54.2	53.3	49.9	47.6	45.4	45.0	44.5	49.5	10.0	59.5
	4	49.9	55.3	44.9	55.0	54.8	54.3	53.8	50.9	48.1	45.7	45.3	44.9	49.9	10.0	59.9
	5	55.1	59.1	51.9	58.8	58.6	57.9	57.3	55.8	54.6	52.8	52.5	52.0	55.1	10.0	65.1
	6	56.5	59.9	53.2	59.7	59.5	59.1	58.7	57.3	56.1	54.2	53.8	53.3	56.5	10.0	66.5
Day	7	51.2	55.6	48.4	55.4	55.1	54.3	53.6	51.6	50.5	49.0	48.8	48.5	51.2	0.0	51.2
	8	46.8	50.8	43.4	50.6	50.4	49.9	49.4	47.5	46.1	44.2	43.9	43.5	46.8	0.0	46.8
	9	47.9	53.5	43.8	53.2	53.0	52.1	51.3	48.4	46.7	44.6	44.2	43.8	47.9	0.0	47.9
	10	47.9	52.3	44.2	52.1	51.8	51.2	50.7	48.6	47.1	45.0	44.7	44.3	47.9	0.0	47.9
	11	48.0	54.6	43.1	54.2	53.8	52.8	52.1	48.1	46.4	44.1	43.6	43.3	48.0	0.0	48.0
	12	46.4	53.4	41.3	53.1	52.8	51.9	50.9	46.4	44.4	42.1	41.7	41.4	46.4	0.0	46.4
	13	47.0	52.1	42.9	51.9	51.7	51.0	50.4	47.5	45.9	43.7	43.3	43.0	47.0	0.0	47.0
	14	48.9	56.0	43.7	55.7	55.3	54.2	53.0	49.0	46.8	44.5	44.2	43.8	48.9	0.0	48.9
	15	51.0	57.0	46.8	56.5	56.1	55.3	54.5	51.5	49.8	47.6	47.2	46.9	51.0	0.0	51.0
	16	54.4	58.6	51.1	58.4	58.2	57.7	57.0	55.3	53.7	51.9	51.6	51.2	54.4	0.0	54.4
	17	54.8	59.3	51.3	59.1	58.9	58.3	57.6	55.3	54.0	52.2	51.8	51.4	54.8	0.0	54.8
	18	52.9	58.1	49.5	57.8	57.6	56.6	55.8	53.2	51.9	50.2	49.9	49.6	52.9	0.0	52.9
	19	53.2	60.9	48.5	60.3	59.7	59.2	57.7	52.9	51.0	49.3	49.0	48.6	53.2	5.0	58.2
	20	52.5	57.2	48.8	56.9	56.6	56.1	55.5	53.1	51.6	49.6	49.3	48.9	52.5	5.0	57.5
	21	51.1	54.7	48.6	54.5	54.3	53.8	53.2	51.7	50.7	49.4	49.1	48.7	51.1	5.0	56.1
Night	22	50.4	56.2	47.1	55.8	55.5	54.3	53.5	50.6	49.2	47.8	47.5	47.2	50.4	10.0	60.4
	23	50.8	53.6	48.0	53.4	53.3	53.0	52.7	51.6	50.6	48.7	48.4	48.1	50.8	10.0	60.8

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	46.4	50.8	41.3	50.6	50.4	49.9	49.4	46.4	44.4	42.1	41.7	41.4
	Max	54.8	60.9	51.3	60.3	59.7	59.2	57.7	55.3	54.0	52.2	51.8	51.4
Energy Average		51.1	Average:		55.3	55.0	54.3	53.5	50.7	49.1	47.2	46.8	46.5
Night	Min	49.5	53.6	44.4	53.4	53.3	53.0	52.7	49.9	47.6	45.4	45.0	44.5
	Max	56.5	60.4	53.2	60.2	59.9	59.1	58.7	57.3	56.1	54.2	53.8	53.3
Energy Average		53.7	Average:		57.4	57.1	56.3	55.8	53.6	52.0	49.8	49.4	48.9

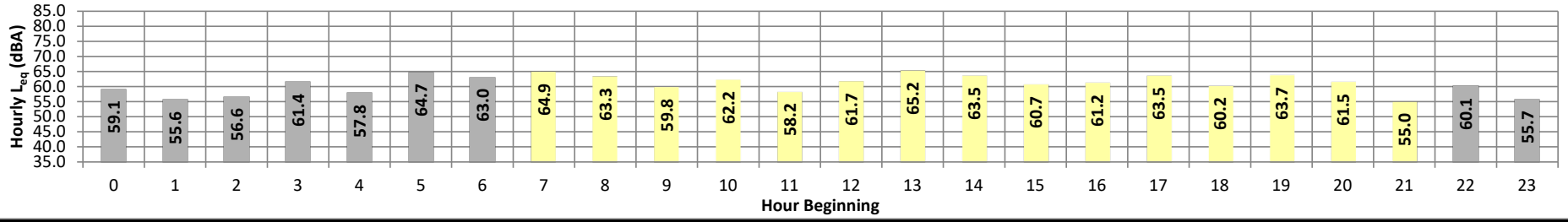
L_{eq} (dBA)		
24-Hour	Daytime (7am-10pm)	Nighttime (10pm-7am)
52.3	**51.1**	**53.7**

24-Hour Noise Level Measurement Summary

Date: Wednesday, November 10, 2021 *Location:* L4 - Located west of the Project site near single-family *Meter:* Piccolo II *JN:* 14338

Project: Hobsonway Cannabis *Source:* residence at 1926 West Hobsonway. *Analyst:* A. Khan

Hourly L_{eq} dBA Readings (unadjusted)



Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%	L_{eq}	Adj.	Adj. L_{eq}
Night	0	59.1	64.4	53.9	64.1	63.7	62.5	61.7	60.1	58.5	55.3	54.8	54.0	59.1	10.0	69.1
	1	55.6	64.5	49.0	64.0	63.1	61.7	59.6	55.4	53.1	50.3	49.7	49.2	55.6	10.0	65.6
	2	56.6	66.9	49.6	66.4	65.2	61.6	59.5	56.4	54.5	51.0	50.5	49.8	56.6	10.0	66.6
	3	61.4	72.1	43.0	71.7	70.7	68.6	67.8	59.7	49.8	44.2	43.6	43.1	61.4	10.0	71.4
	4	57.8	71.0	47.2	70.3	68.9	64.2	60.7	54.9	52.2	48.7	48.1	47.4	57.8	10.0	67.8
	5	64.7	77.4	56.3	76.6	75.2	71.0	68.3	62.0	60.1	57.5	57.0	56.5	64.7	10.0	74.7
	6	63.0	74.1	56.5	73.5	72.3	68.2	65.6	62.1	60.4	57.8	57.2	56.7	63.0	10.0	73.0
Day	7	64.9	78.1	51.2	77.6	76.4	72.7	69.3	60.4	55.3	52.3	51.8	51.3	64.9	0.0	64.9
	8	63.3	77.2	45.1	76.6	75.4	70.8	67.2	57.8	50.7	46.3	45.7	45.3	63.3	0.0	63.3
	9	59.8	72.8	44.6	72.1	71.0	67.6	64.9	55.3	49.9	46.1	45.5	44.8	59.8	0.0	59.8
	10	62.2	76.8	45.6	76.1	74.6	69.3	65.1	54.7	50.3	46.7	46.3	45.7	62.2	0.0	62.2
	11	58.2	71.4	44.3	70.8	69.6	65.5	62.7	54.0	49.7	45.6	45.0	44.5	58.2	0.0	58.2
	12	61.7	76.0	43.2	75.2	73.5	68.7	65.5	56.4	49.9	44.9	44.2	43.3	61.7	0.0	61.7
	13	65.2	79.4	44.1	78.8	77.4	73.0	68.9	57.9	51.3	45.3	44.8	44.2	65.2	0.0	65.2
	14	63.5	77.4	45.4	76.7	75.5	71.1	67.6	58.0	51.7	46.8	46.1	45.5	63.5	0.0	63.5
	15	60.7	72.4	46.7	71.8	70.8	67.9	65.9	59.5	52.7	47.8	47.3	46.9	60.7	0.0	60.7
	16	61.2	74.2	50.1	73.5	71.9	68.2	65.6	58.2	54.5	51.2	50.7	50.2	61.2	0.0	61.2
	17	63.5	78.0	49.6	77.2	75.6	70.4	66.3	57.3	53.8	50.7	50.3	49.7	63.5	0.0	63.5
	18	60.2	72.2	48.6	71.6	70.6	67.6	65.7	57.1	53.0	49.6	49.1	48.8	60.2	0.0	60.2
	19	63.7	77.6	46.4	77.1	76.3	71.8	65.5	56.8	50.1	47.4	47.0	46.5	63.7	5.0	68.7
	20	61.5	75.2	47.0	74.6	73.4	68.8	65.1	57.2	51.6	47.9	47.5	47.1	61.5	5.0	66.5
	21	55.0	66.0	47.7	65.6	64.7	61.6	59.2	53.1	50.8	48.6	48.3	47.8	55.0	5.0	60.0
Night	22	60.1	73.3	45.6	72.8	71.6	68.1	64.2	54.5	49.2	46.5	46.2	45.7	60.1	10.0	70.1
	23	55.7	67.8	48.6	67.1	65.7	61.7	58.8	53.7	52.0	49.7	49.2	48.8	55.7	10.0	65.7

Timeframe	Hour	L_{eq}	L_{max}	L_{min}	L1%	L2%	L5%	L8%	L25%	L50%	L90%	L95%	L99%
Day	Min	55.0	66.0	43.2	65.6	64.7	61.6	59.2	53.1	49.7	44.9	44.2	43.3
	Max	65.2	79.4	51.2	78.8	77.4	73.0	69.3	60.4	55.3	52.3	51.8	51.3
Energy Average		62.3	Average:		74.3	73.1	69.0	65.6	56.9	51.7	47.8	47.3	46.8
Night	Min	55.6	64.4	43.0	64.0	63.1	61.6	58.8	53.7	49.2	44.2	43.6	43.1
	Max	64.7	77.4	56.5	76.6	75.2	71.0	68.3	62.1	60.4	57.8	57.2	56.7
Energy Average		60.4	Average:		69.6	68.5	65.3	62.9	57.7	54.4	51.2	50.7	50.1

24-Hour	L_{eq} (dBA) Daytime (7am-10pm)	Nighttime (10pm-7am)
61.7	**62.3**	**60.4**

APPENDIX 6.1:

SAMPLE HVAC UNITS

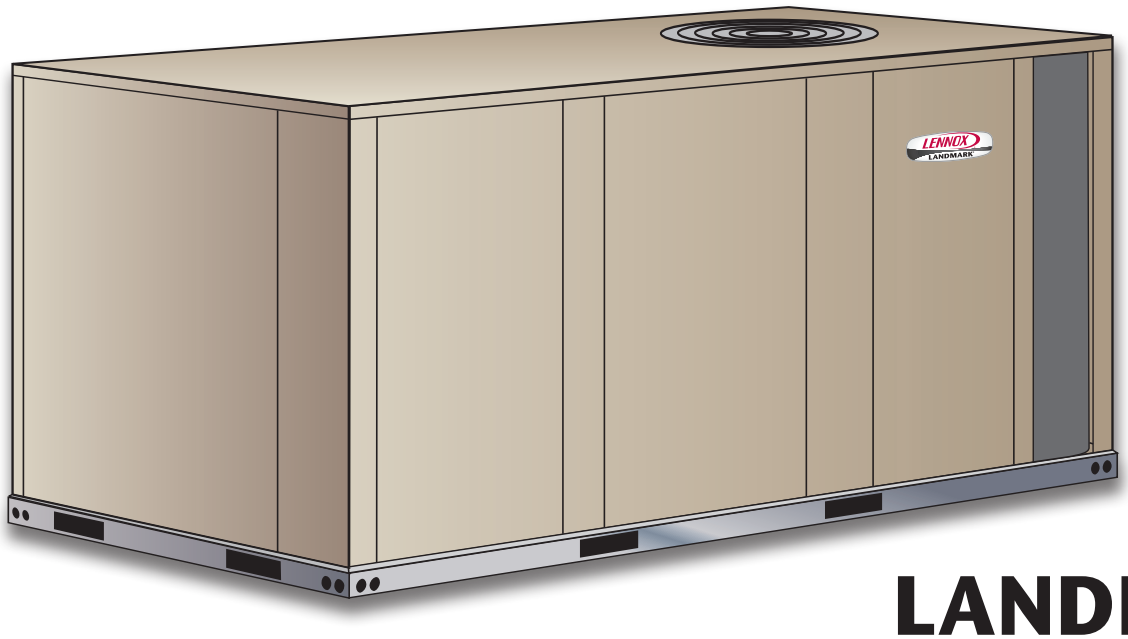
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KCB

Landmark® Rooftop Units
Standard and High Efficiency - 60 Hz

COMMERCIAL
PRODUCT SPECIFICATIONS

Bulletin No. 210789
September 2021
Supersedes March 2021



LANDMARK®
Performance Marked by Flexibility™

Humiditrol

L Connection NETWORK

ASHRAE 90.1 COMPLIANT

2 to 7.5 Tons
Net Cooling Capacity - 24,200 to 88,000 Btuh
Optional Electric Heat - 5 to 30 kW

MODEL NUMBER IDENTIFICATION

K C B 060 S 4 B N 1 Y

Brand/Family
K = Landmark® Product Line

Unit Type
C = Packaged Electric Cooling w/ optional Electric Heat

Major Design Sequence
B = 2nd Generation

Nominal Cooling Capacity - Tons
024 = 2 Tons
030 = 2.5 Tons
036 = 3 Tons
048 = 4 Tons
060 = 5 Tons
072 = 6 Tons
074 = 6 Tons
090 = 7.5 Tons

Cooling Efficiency
H = High Efficiency
S = Standard Efficiency

Refrigerant Type
4 = R-410A

Blower Type
D = Direct Drive
B = Belt Drive
T = Belt Drive (2 Speed)

Factory Installed Electric Heat
N = No Heat

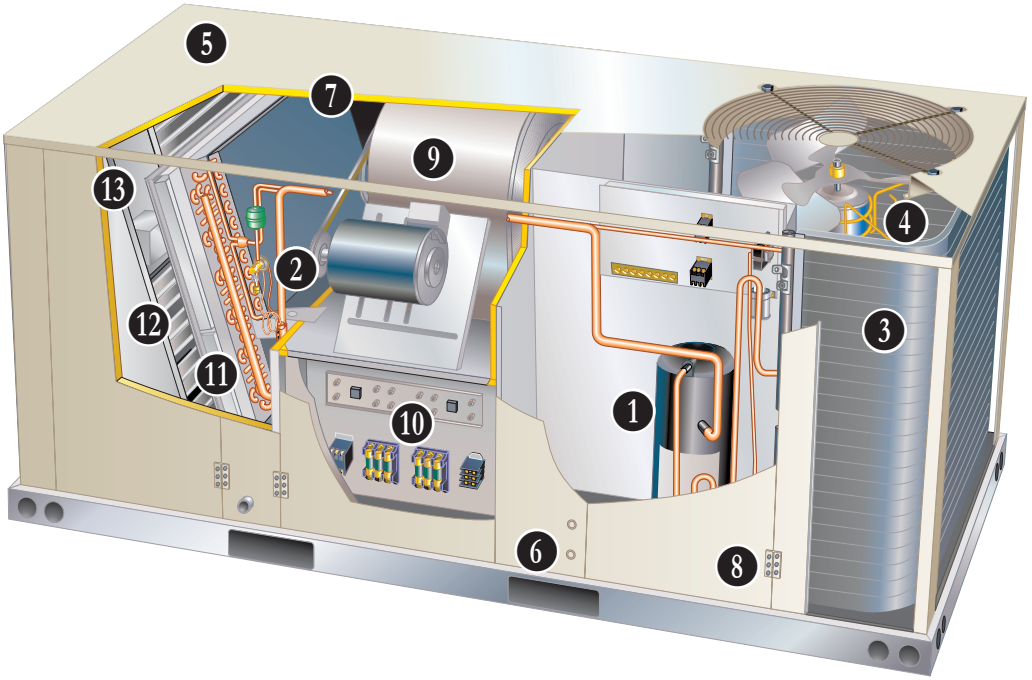
Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
P = 208/230V-1 phase-60Hz
Y = 208/230V-3 phase-60Hz
G = 460V-3 phase-60Hz
J = 575V-3 phase-60Hz

FEATURE HIGHLIGHTS

Landmark® rooftop units from Lennox® are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor environments.

1. Scroll Compressor
2. Thermal Expansion Valves
3. Lennox' Environ™ Coil System
4. Outdoor Coil Fan Motors
5. Heavy Gauge Steel Cabinet
6. Power Entry
7. Insulation
8. Hinged Access Panels (option)
9. Supply Air Blower
10. Electric Heat (option)
11. Air Filters
12. Economizer (option)
13. Power Exhaust Fans (option)



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BLOWER DATA

CEILING DIFFUSERS AIR RESISTANCE (in. w.g.)

Air Volume cfm	RTD9-65S Step–Down Diffuser			FD9-65S Flush Diffuser	RTD11-95S Step–Down Diffuser			FD11-95S Flush Diffuser
	2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open		2 Ends Open	1 Side & 2 Ends Open	All Ends & Sides Open	
800	0.15	0.13	0.11	0.11	- - -	- - -	- - -	- - -
1000	0.19	0.16	0.14	0.14	- - -	- - -	- - -	- - -
1200	0.25	0.20	0.17	0.17	- - -	- - -	- - -	- - -
1400	0.33	0.26	0.20	0.20	- - -	- - -	- - -	- - -
1600	0.43	0.32	0.20	0.24	- - -	- - -	- - -	- - -
1800	0.56	0.40	0.30	0.30	0.13	0.11	0.09	0.09
2000	0.73	0.50	0.36	0.36	0.15	0.13	0.11	0.10
2200	0.95	0.63	0.44	0.44	0.18	0.15	0.12	0.12
2400	- - -	- - - -	- - -	- - -	0.21	0.18	0.15	0.14
2600	- - -	- - - -	- - -	- - -	0.24	0.21	0.18	0.17
2800	- - -	- - - -	- - -	- - -	0.27	0.24	0.21	0.20
3000	- - -	- - - -	- - -	- - -	0.32	0.29	0.25	0.25
3200	- - -	- - - -	- - -	- - -	0.41	0.37	0.32	0.31
3400	- - -	- - - -	- - -	- - -	0.50	0.45	0.39	0.37
3600	- - -	- - - -	- - -	- - -	0.61	0.54	0.48	0.44

CEILING DIFFUSER AIR THROW DATA

Air Volume - cfm	[1] Effective Throw - ft.	
Model No.	**RTD9-65S**	**FD9-65S**
800	10 - 17	14 - 18
1000	10 - 17	15 - 20
1200	11 - 18	16 - 22
1400	12 - 19	17 - 24
1600	12 - 20	18 - 25
1800	13 - 21	20 - 28
2000	14 - 23	21 - 29
2200	16 - 25	22 - 30
Model No.	**RTD11-95S**	**FD11-95S**
2600	24 - 29	19 - 24
2800	25 - 30	20 - 28
3000	27 - 33	21 - 29
3200	28 - 35	22 - 29
3400	30 - 37	22 - 30
3600	25 - 33	22 - 24

[1] Effective throw based on terminal velocities of 75 ft. per minute.

POWER EXHAUST FAN PERFORMANCE

Return Air System Static Pressure - in. w.g.	Air Volume Exhausted cfm
0.00	2000
0.05	1990
0.10	1924
0.15	1810
0.20	1664
0.25	1507
0.30	1350
0.35	1210

OUTDOOR SOUND DATA

Unit Model No.	Octave Band Sound Power Levels dBA, re 10^{-12} Watts - Center Frequency - Hz							[1] Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
KCB024, 030, 036, 048	62	66	70	69	66	60	50	74
KCB060	72	75	78	77	73	68	58	83
KCB072, 074, 090	66	71	74	73	70	65	57	79

Note - The octave sound power data does not include tonal corrections.

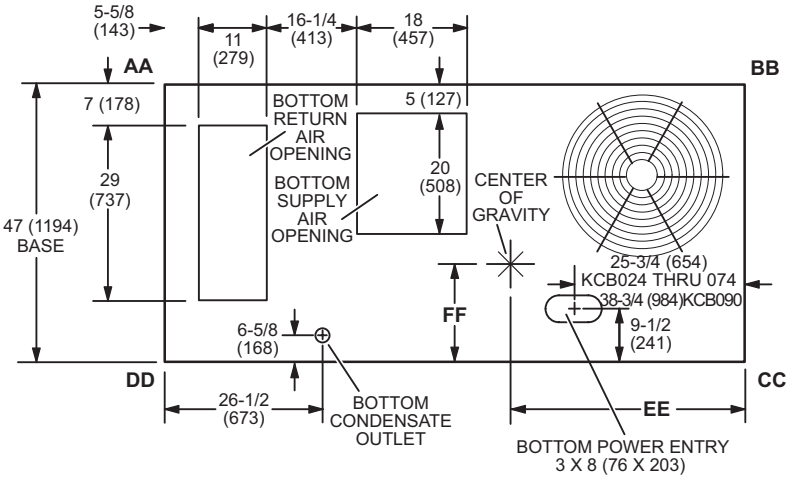
[1] Sound Rating Number according to AHRI Standard 270-95 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).

DIMENSIONS - UNIT

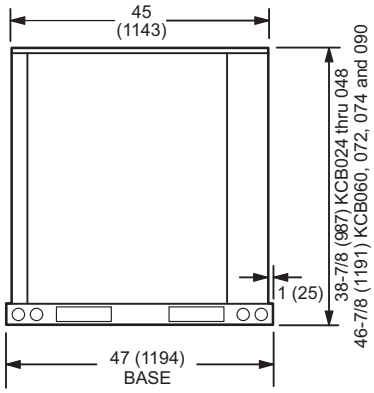
Model No.	CORNER WEIGHTS														CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm
024	101	46	122	56	118	53	125	57	152	69	161	73	131	60	197	90	39-1/2	1003	45	1143	20-1/2	521	20-1/2	521
030	102	46	123	56	118	54	125	57	153	69	162	74	132	60	197	90	39-1/2	1003	45	1143	20-1/2	521	20-1/2	521
036	107	48	132	60	123	56	131	60	159	72	177	80	138	62	213	97	39-1/2	1003	45	1143	20-1/2	521	20	508
048	107	48	132	60	123	56	131	60	159	72	177	81	138	62	213	97	39-1/2	1003	45	1143	20-1/2	521	20	508
060	118	53	142	65	140	63	152	69	197	89	205	93	166	75	251	114	39	991	44-3/4	1137	19-1/2	495	20	508
072	118	53	142	65	140	63	152	69	197	89	205	93	166	75	251	114	39	991	44-3/4	1137	19-1/2	495	20	508
074	118	53	142	65	140	63	152	69	197	89	205	93	166	75	251	114	39	991	44-3/4	1137	19-1/2	495	20	508
090	164	74	187	85	179	81	203	92	221	100	252	114	203	92	231	105	47	1194	47	1194	21	533	21	533

Base Unit - The unit with NO INTERNAL OPTIONS.

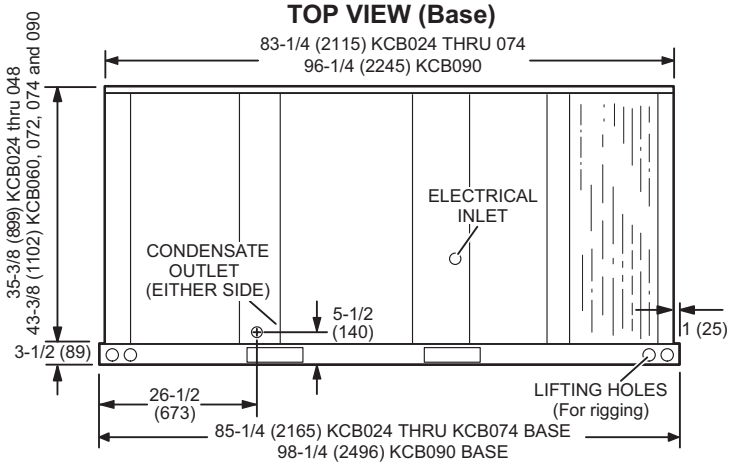
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit or high static power exhaust.



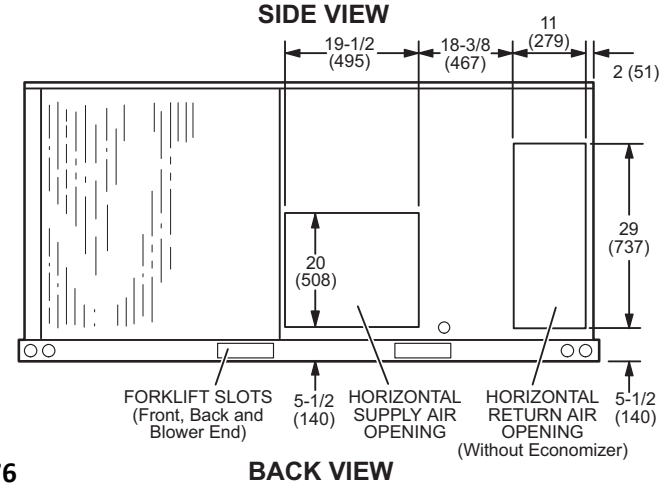
TOP VIEW (Base)



END VIEW



SIDE VIEW



BACK VIEW

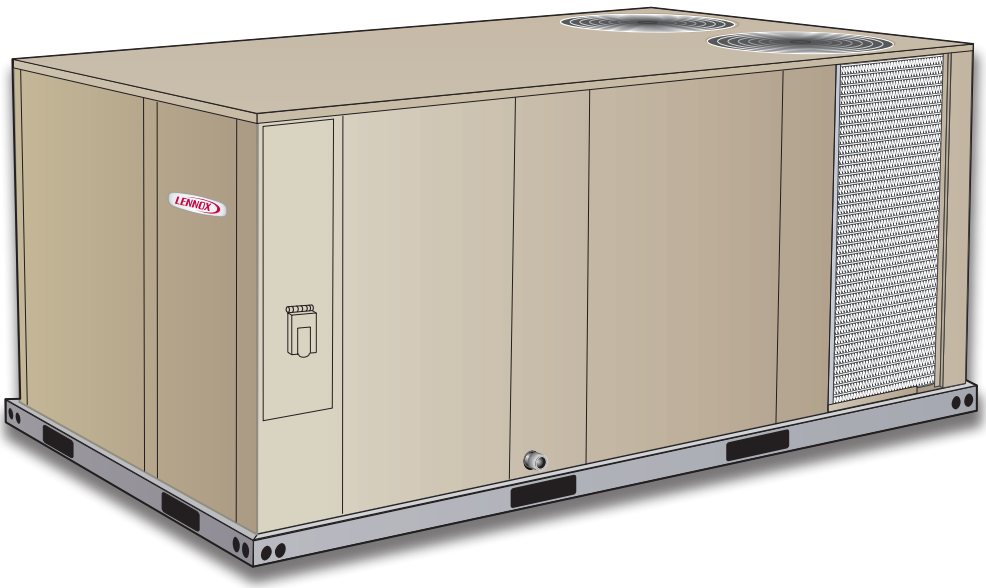
KCA/KCB

Landmark® Rooftop Units

60 Hz

COMMERCIAL
PRODUCT SPECIFICATIONS

Bulletin No. 210821
October 2021
Supersedes September 2021



LANDMARK®
Performance Marked by Flexibility™

Environ™ Coil System | Humiditrol | MSAV™ MULTI-STAGE AIR VOLUME | L Connection® NETWORK

ASHRAE 90.1 COMPLIANT

7.5 to 12.5 Tons
Net Cooling Capacity – 86,000 to 138,000 Btuh
Optional Electric Heat - 7.5 to 60 kW

MODEL NUMBER IDENTIFICATION

K C A 120 H 4 B N 1 Y

Brand/Family
K = Landmark®

Unit Type
C = Packaged Electric Cooling w/ optional Electric Heat

Major Design Sequence
A = 1st Generation
B = 2nd Generation

Nominal Cooling Capacity - Tons
092 = 7.5 Tons
102 = 8.5 Tons
120 = 10 Tons
150 = 12.5 Tons

Cooling Efficiency
H = High Efficiency
S = Standard Efficiency

Refrigerant Type
4 = R-410A

Blower Type
B = Belt Drive, Constant Air Volume
M = MSAV® (Multi-Stage Air Volume), Belt Drive

Factory Installed Electric Heat
N = No Heat
C = 7.5 kW Electric Heat
E = 15 kW Electric Heat
G = 22.5 kW Electric Heat
J = 30 kW Electric Heat
K = 45 kW Electric Heat
L = 60 kW Electric Heat

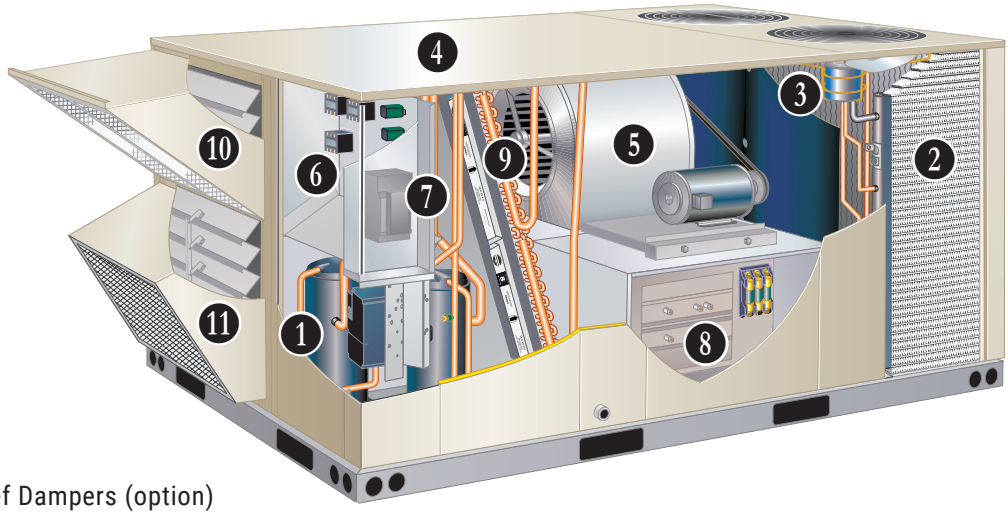
Minor Design Sequence
1 = 1st Revision
2 = 2nd Revision
3 = 3rd Revision

Voltage
Y = 208/230V-3 phase-60Hz
G = 460V-3 phase-60Hz
J = 575V-3 phase-60Hz

FEATURE HIGHLIGHTS

Landmark® rooftop units from Lennox are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor environments.

1. Scroll Compressors
2. Environ™ Coil System
3. Outdoor Coil Fan Motors
4. Heavy Gauge Steel Cabinet
5. Constant or Multi-Stage Air Volume (MSAV®) Blower
6. Unit Control
7. Disconnect Switch (option)
8. Electric Heat (option)
9. Air Filters
10. Economizer (option)
11. Downflow Barometric Relief Dampers (option)



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BLOWER DATA

092S STANDARD EFFICIENCY BELT DRIVE BLOWER − BASE UNIT

BLOWER TABLE INCLUDES RESISTANCE FOR BASE UNIT ONLY (NO HEAT SECTION) WITH DRY INDOOR COIL AND AIR FILTERS IN PLACE. FOR ALL UNITS ADD:

1 − Wet indoor coil air resistance of selected unit.

2 − Any factory installed options air resistance (heat section, economizer, etc.)

3 − Any field installed accessories air resistance (duct resistance, diffuser, etc.)

Then determine from blower table blower motor output required.

See page 33 for blower motors and drives.

See page 33 for wet coil and option/accessory air resistance data.

MINIMUM AIR VOLUME REQUIRED FOR USE WITH OPTIONAL ELECTRIC HEAT (Maximum Static Pressure - 2.0 in. w.g.)

7.5 kW, 15 kW, 22.5 kW, 30 kW and 45 kW - 2800 cfm

Total Air Volume cfm	Total Static Pressure − in. w.g.																							
	0.2		0.4		0.6		0.8		1.0		1.2		1.4		1.6		1.8		2		2.2		2.4		2.6	
	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP	RPM	BHP
1750	608	0.05	651	0.03	696	0.06	744	0.22	794	0.60	845	0.95	894	1.24	934	1.38	978	1.47	1047	1.66	1120	1.89	1179	2.15	1230	2.40
2000	615	0.07	657	0.05	702	0.10	748	0.36	797	0.72	846	1.05	892	1.30	933	1.45	977	1.55	1049	1.75	1124	2.00	1181	2.23	1234	2.47
2250	624	0.09	664	0.07	707	0.14	753	0.50	800	0.84	847	1.15	892	1.38	934	1.53	979	1.65	1051	1.86	1126	2.12	1183	2.36	1238	2.62
2500	632	0.11	672	0.09	714	0.29	758	0.64	803	0.97	849	1.26	893	1.48	936	1.63	983	1.75	1052	1.96	1124	2.22	1184	2.49	1241	2.77
2750	641	0.13	680	0.11	721	0.45	763	0.78	807	1.09	852	1.37	896	1.58	940	1.74	989	1.88	1053	2.08	1121	2.34	1185	2.63	1244	2.93
3000	651	0.15	689	0.29	728	0.61	770	0.93	812	1.23	856	1.49	901	1.70	947	1.87	996	2.02	1055	2.21	1120	2.47	1186	2.78	1248	3.10
3250	661	0.17	698	0.46	737	0.78	777	1.09	819	1.38	862	1.63	908	1.84	955	2.01	1004	2.17	1059	2.36	1122	2.62	1189	2.94	1252	3.28
3500	672	0.36	708	0.65	746	0.95	786	1.25	827	1.53	870	1.78	916	1.99	965	2.17	1013	2.33	1065	2.52	1126	2.79	1193	3.12	1257	3.47
3750	684	0.56	719	0.85	756	1.14	795	1.43	836	1.70	880	1.95	927	2.16	976	2.34	1023	2.51	1073	2.71	1133	2.98	1198	3.32	1263	3.67
4000	697	0.78	731	1.05	768	1.34	807	1.62	848	1.89	892	2.13	940	2.34	988	2.53	1034	2.71	1083	2.91	1141	3.19	1205	3.53	1270	3.89
4250	710	1.00	745	1.27	781	1.55	819	1.83	861	2.09	906	2.33	954	2.55	1001	2.74	1046	2.93	1094	3.14	1151	3.42	1214	3.76	1278	4.12

OUTDOOR SOUND DATA

Unit Model Number	Octave Band Sound Power Levels dBA, re 10^{-12} Watts - Center Frequency - Hz							[1] Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
092, 102 and 120	76	79	84	83	79	73	66	88
150	75	81	87	85	80	73	67	90

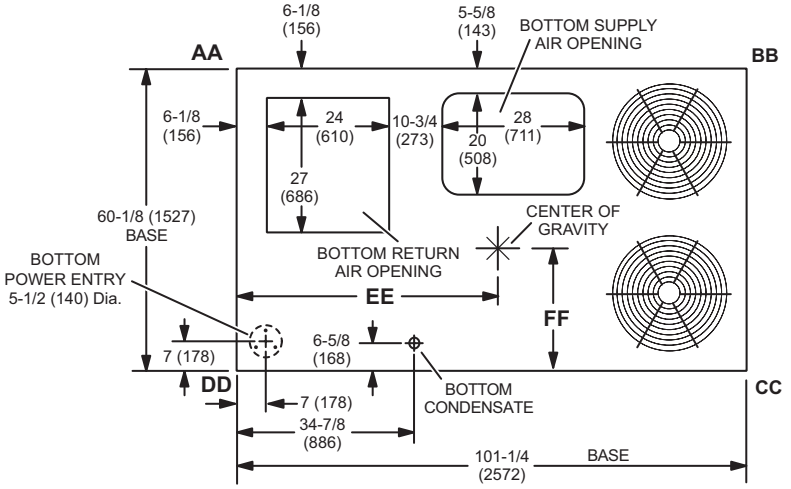
Note - The octave sound power data does not include tonal corrections.

[1] Sound Rating Number according to AHRI Standard 270-95 or AHRI Standard 370-2001 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).

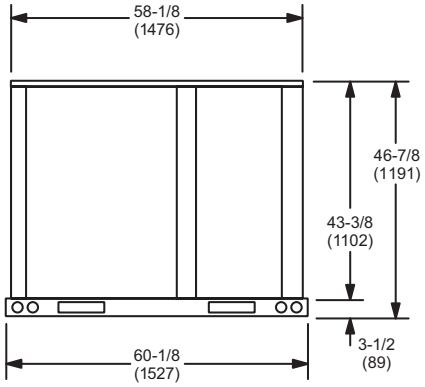
DIMENSIONS - UNIT

Model No.	CORNER WEIGHTS																CENTER OF GRAVITY							
	AA				BB				CC				DD				EE				FF			
	Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.		Base		Max.	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm	in.	mm	in.	mm
092S	223	101	309	141	190	86	259	118	206	94	275	124	250	113	341	154	44-1/2	1130	43-1/2	1105	24-1/2	622	25-1/2	648
092H	270	122	310	141	230	104	265	120	249	113	287	130	302	137	348	158	44-1/2	1130	43-1/2	1105	24-1/2	622	25-1/2	648
102S	228	104	316	143	195	88	262	119	211	96	280	127	254	116	347	157	44-1/2	1130	43-1/2	1105	24-1/2	622	25-1/2	648
102H	272	123	312	141	232	105	266	121	251	114	288	131	304	138	350	159	44-1/2	1130	43-1/2	1105	24-1/2	622	25-1/2	648
120S	243	110	331	150	204	93	273	124	220	100	294	133	271	123	369	167	44	1118	43	1092	24-3/4	629	25-3/4	654
120H	283	128	325	148	238	108	274	124	257	116	295	134	316	143	363	165	44	1118	43	1092	24-3/4	629	25-3/4	654
150S	263	119	305	138	222	101	257	117	242	110	280	127	298	135	346	157	44	1118	43	1092	24	610	25	635

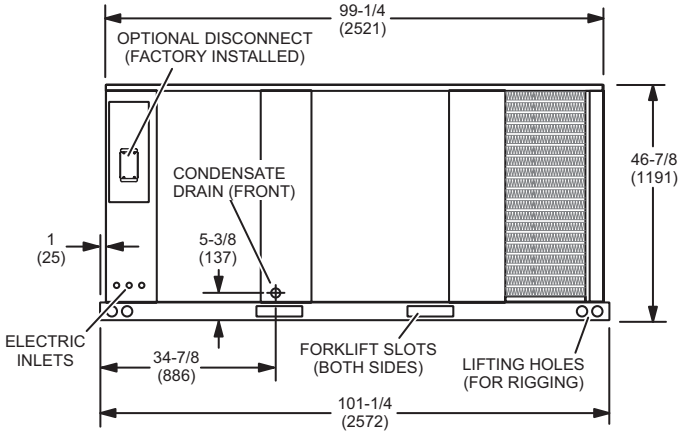
Base Unit - The unit with NO OPTIONS.
Max. Unit - The unit with ALL OPTIONS Installed. (Economizer, etc.)



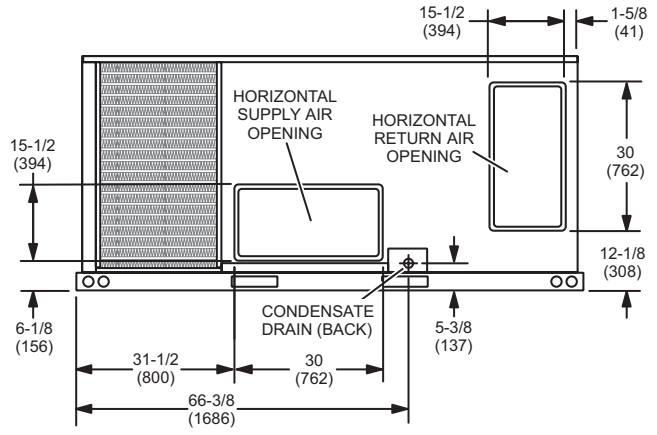
TOP VIEW



END VIEW



SIDE VIEW



SIDE VIEW
(Horizontal Openings)

KCA/KCB

Landmark® Rooftop Units

60 Hz

COMMERCIAL
PRODUCT SPECIFICATIONS

Bulletin No. 210823
September 2021
Supersedes July 2021



LANDMARK®
Performance Marked by Flexibility™

Environ™ Coil System | Humiditrol | MSAV™ MULTI-STAGE AIR VOLUME | L Connection® NETWORK | ASHRAE 90.1 COMPLIANT

13 to 25 Tons
Net Cooling Capacity – 150,000 to 270,000 Btuh
Optional Electric Heat - 15 to 90 kW

MODEL NUMBER IDENTIFICATION

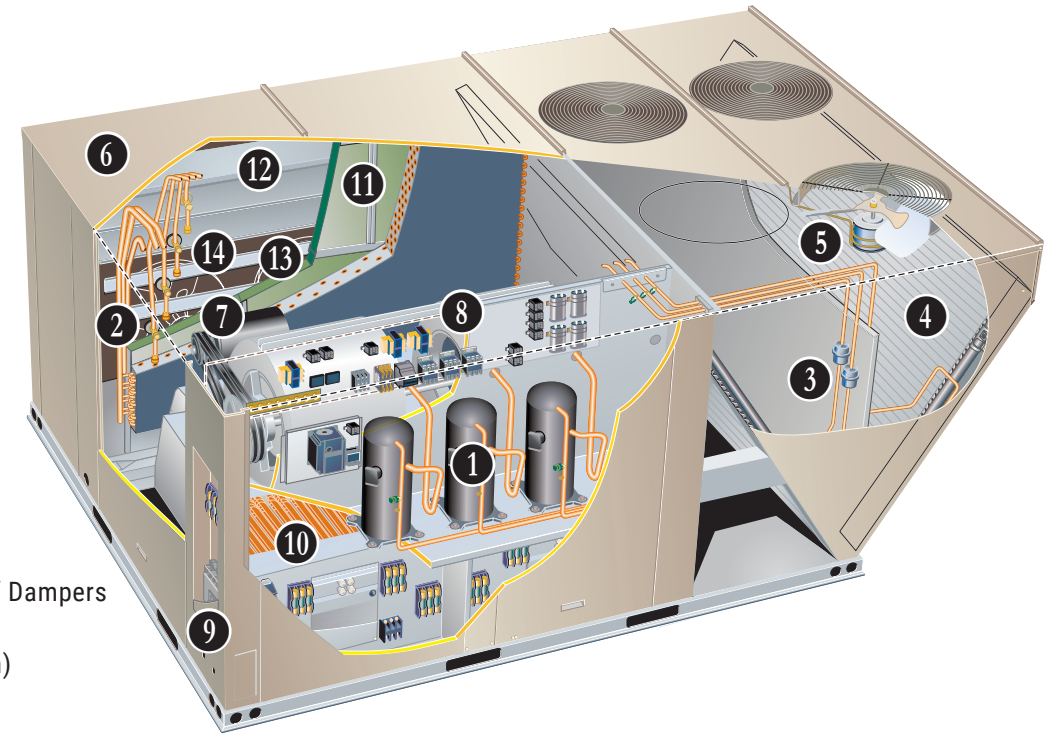
K C B 240 S 4 B N 1 Y

- **Brand/Family**
  K = Landmark®
- **Unit Type**
  C = Packaged Electric Cooling w/ optional Electric Heat
- **Major Design Sequence**
  A = 1st Generation
  B = 2nd Generation
- **Nominal Cooling Capacity - Tons**
  156 =13 Tons
  180 = 15 Tons
  210 = 17.5 Tons
  240 = 20 Tons
  300 = 25 Tons
- **Cooling Efficiency**
  H = High Efficiency
  S = Standard Efficiency
- **Refrigerant Type**
  4 = R-410A
- **Blower Type**
  B = Constant Air Volume, Belt Drive
  M = MSAV® (Multi-Stage Air Volume), Belt Drive
- **Factory Installed Electric Heat**
  N = No Heat
- **Minor Design Sequence**
  1 = 1st Revision
  2 = 2nd Revision
  3 = 3rd Revision
- **Voltage**
  Y = 208/230V-3 phase-60Hz
  G = 460V-3 phase-60Hz
  J = 575V-3 phase-60Hz

FEATURE HIGHLIGHTS

Landmark® rooftop units from Lennox® are the new standard for reliable, efficient rooftop units built for long-lasting performance that can significantly improve indoor and outdoor environments.

1. Scroll Compressors
2. Thermal Expansion Valves
3. Filter/Driers
4. Lennox' Environ™ Coil System
5. Outdoor Coil Fan Motors
6. Cabinet Construction
7. Constant or Multi-Stage Air Volume (MSAV®) Blower
8. Unit Control
9. Disconnect Switch (option)
10. Electric Heat (option)
11. Air Filters
12. Economizer (option)
13. Downflow Barometric Relief Dampers (option)
14. Power Exhaust Fans (option)



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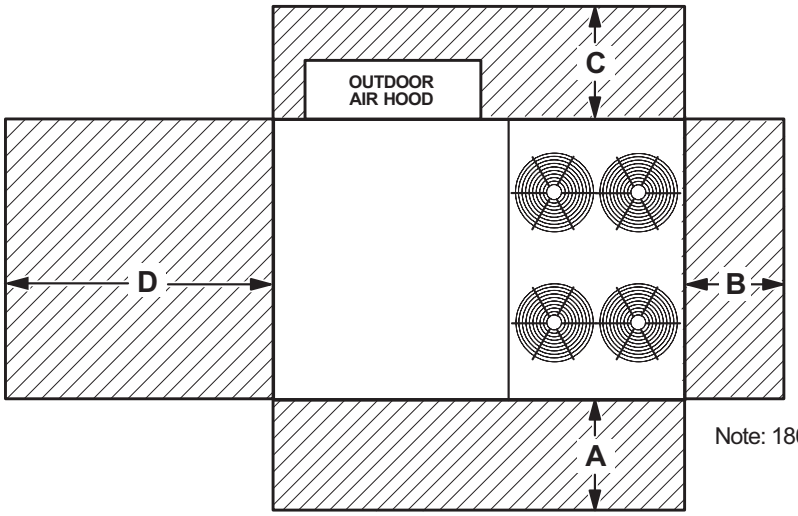
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ELECTRIC HEAT CAPACITIES

Volts Input	15 kW			30 kW			45 kW			60 kW			90 kW		
	kW Input	Btuh Output	No. of Stages	kW Input	Btuh Output	No. of Stages	kW Input	Btuh Output	No. of Stages	kW Input	Btuh Output	No. of Stages	kW Input	Btuh Output	No. of Stages
208	11.3	38,600	1	22.5	76,800	1	33.8	115,300	2	45.0	153,600	2	67.6	230,700	2
220	12.6	43,000	1	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2
230	13.8	47,100	1	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2
240	15.0	51,200	1	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2
440	12.6	43,000	1	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2
460	13.8	47,100	1	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2
480	15.0	51,200	1	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2
550	12.6	43,000	1	25.2	86,000	1	37.8	129,000	2	50.4	172,000	2	75.6	258,000	2
575	13.8	47,100	1	27.5	93,900	1	41.3	141,000	2	55.1	188,000	2	82.7	282,200	2
600	15.0	51,200	1	30.0	102,400	1	45.0	153,600	2	60.0	204,800	2	90.0	307,100	2

UNIT CLEARANCES

Unit With Economizer



Note: 180H, 240S, 300S sizes shown

[1] Unit Clearance	A		B		C		D		Top Clearance
	in.	mm	in.	mm	in.	mm	in.	mm	
Service Clearance	60	1524	36	914	36	914	66	1676	Unobstructed
Minimum Operation Clearance	45	1143	36	914	36	914	41	1041	

NOTE - Entire perimeter of unit base requires support when elevated above the mounting surface.

[1] **Service Clearance** - Required for removal of serviceable parts.
Minimum Operation Clearance - Required clearance for proper unit operation.

OUTDOOR SOUND DATA

Unit Model Number	Octave Band Sound Power Levels dBA, re 10^{-12} Watts - Center Frequency - Hz							[1] Sound Rating Number (dBA)
	125	250	500	1000	2000	4000	8000	
156H, 180S, 210S	71	78	81	81	76	71	63	86
180H, 240S	80	83	87	88	84	80	71	93
210H, 240H, 300S	79	84	88	89	85	82	73	94

Note - The octave sound power data does not include tonal corrections.

[1] Sound Rating Number according to AHRI Standard 270-95 (includes pure tone penalty). Sound Rating Number is the overall A-Weighted Sound Power Level, (LWA), dBA (100 Hz to 10,000 Hz).

WEIGHT DATA

Model Number	Outdoor Coil	Net		Shipping		Outdoor Coil	Net		Shipping	
		lbs.	kg	lbs.	kg		lbs.	kg	lbs.	kg
156H Base Unit	Environ™	1785	810	1985	900	- - -	- - -	- - -	- - -	- - -
156H Max. Unit	Environ™	2065	937	2265	1027	- - -	- - -	- - -	- - -	- - -
180H Base Unit	Environ™	1965	891	2165	982	- - -	- - -	- - -	- - -	- - -
180H Max. Unit	Environ™	2245	1018	2445	1109	- - -	- - -	- - -	- - -	- - -
210H Base Unit	Environ™	2090	948	2290	1039	- - -	- - -	- - -	- - -	- - -
210H Max. Unit	Environ™	2380	1080	2580	1170	- - -	- - -	- - -	- - -	- - -
240H Base Unit	Environ™	2175	987	2375	1077	- - -	- - -	- - -	- - -	- - -
240H Max. Unit	Environ™	2465	1118	2665	1209	- - -	- - -	- - -	- - -	- - -
180S Base Unit	Environ™	1705	773	1905	864	Fin/Tube	1770	802	1970	894
180S Max. Unit	Environ™	2025	919	2225	1009	Fin/Tube	2090	948	2290	1039
210S Base Unit	Environ™	1815	823	2015	914	Fin/Tube	1880	852	2080	944
210S Max. Unit	Environ™	2145	973	2345	1064	Fin/Tube	2210	1002	2410	1094
240S Base Unit	Environ™	2030	921	2230	1012	Fin/Tube	2120	962	2320	1053
240S Max. Unit	Environ™	2360	1070	2560	1161	Fin/Tube	2450	1110	2650	1202
300S Base Unit	Environ™	2300	1043	2500	1134	Fin/Tube	2365	1073	2565	1163
300S Max. Unit	Environ™	2590	1175	2790	1266	Fin/Tube	2655	1204	2855	1295

NOTE - Max. Unit is the unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories EXTERNAL to unit.

OPTIONS / ACCESSORIES

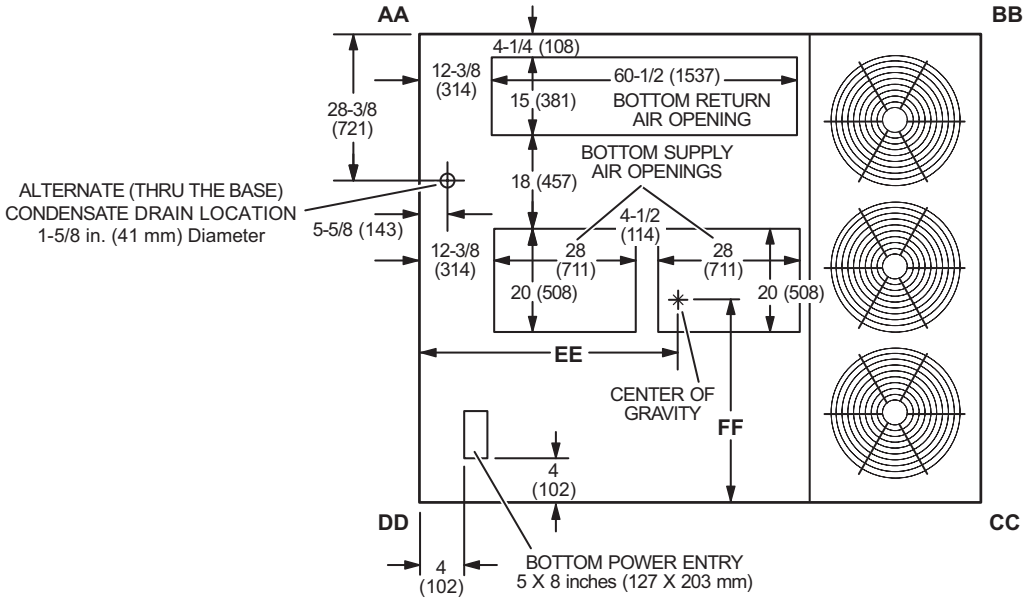
Description		Shipping Weight	
		lbs.	kg
ECONOMIZER / OUTDOOR AIR / EXHAUST			
Economizer			
Economizer Dampers		102	46
Barometric Relief Dampers (downflow)		30	14
Barometric Relief Dampers (horizontal)		20	9
Outdoor Air Damper Hood (downflow)		65	29
Outdoor Air Dampers			
Outdoor Air Damper Section (downflow) - Automatic (including Hood)		18	39
Outdoor Air Damper Section (downflow) - Manual (including Hood)		10	22
Power Exhaust		62	28
ELECTRIC HEAT			
15 kW		59	27
30 kW		59	27
45 kW		76	34
60 kW		76	34
90 kW		84	38
HUMIDITROL® DEHUMIDIFICATION SYSTEM			
Humiditrol® Dehumidification Option (Net Weight)		50	23
MSAV® (MULTI-STAGE AIR VOLUME) SUPPLY AIR BLOWER OPTION			
Variable Frequency Drive (VFD) and associated components		10	5
ROOF CURBS			
Hybrid Roof Curbs, Downflow			
8 in. height		75	34
14 in. height		105	48
18 in. height		125	57
24 in. height		155	70
Adjustable Pitch Curb, Downflow			
14 in. height		262	119
Horizontal Roof Curbs, Standard			
26 in. height		470	213
37 in. height		505	229
30 in. height		575	261
41 in. height		610	277
CEILING DIFFUSERS			
Step-Down	RTD11-185S	168	76
	RTD11-275S	238	108
Flush	FD11-185S	168	76
	FD11-275S	238	108
Transitions	C1DIFF33C-1	80	36
	C1DIFF34C-1	75	34
PACKAGING			
LTL Packaging (less than truck load)		310	141

CORNER WEIGHTS | **CENTER OF GRAVITY**

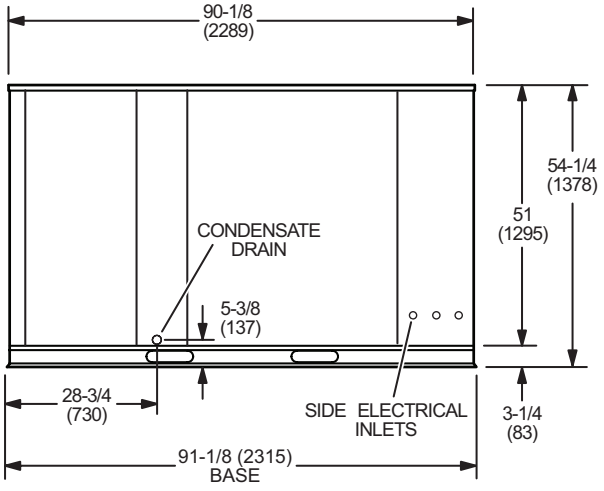
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
KCA156H Base Unit (Environ™ Coil)	428	195	346	157	456	207	554	252	48 1/2	1232	39 1/2	1003
KCA156H Max. Unit (Environ™ Coil)	538	244	429	195	489	222	609	277	48	1219	43	1086
KCB180S Base Unit (Environ™ Coil)	389	176	335	152	455	206	528	239	50	1270	39	991
KCB180S Max. Unit (Environ™ Coil)	504	229	411	186	499	226	612	278	48	1219	41	1041
KCB180S Base Unit (Fin/Tube Coil)	392	176	365	166	485	219	531	240	50 1/4	1276	39 3/4	1010
KCB180S Max. Unit (Fin/Tube Coil)	506	230	441	199	529	239	614	278	49 1/2	1257	42 3/4	1086
KCB210S Base Unit (Environ™ Coil)	427	194	358	162	470	213	561	254	49	1245	39	991
KCB210S Max. Unit (Environ™ Coil)	549	249	435	197	514	233	648	294	48	1219	42	1067
KCB210S Base Unit (Fin/Tube Coil)	430	194	388	176	500	226	564	255	50 1/4	1276	39 3/4	1010
KCB210S Max. Unit (Fin/Tube Coil)	551	250	465	210	544	246	650	294	49 1/2	1257	42 3/4	1086

Base Unit - The unit with NO INTERNAL OPTIONS.

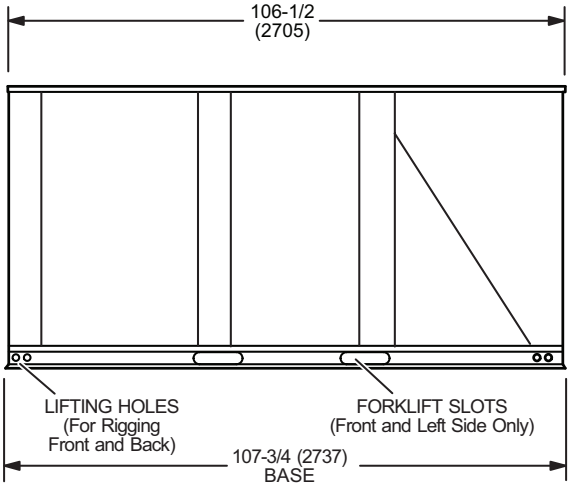
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW



END VIEW



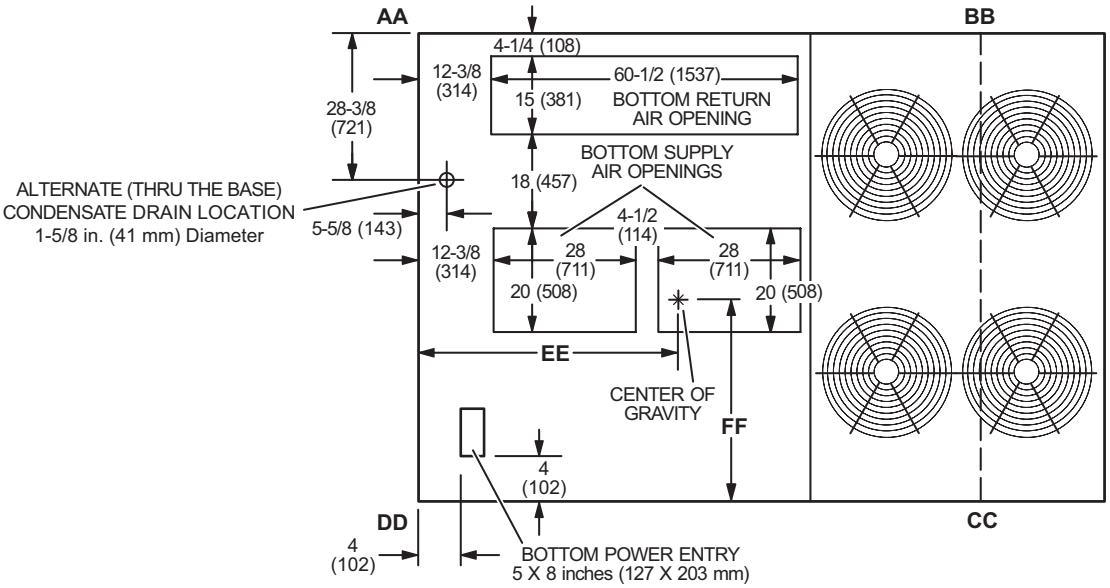
SIDE VIEW

CORNER WEIGHTS | **CENTER OF GRAVITY**

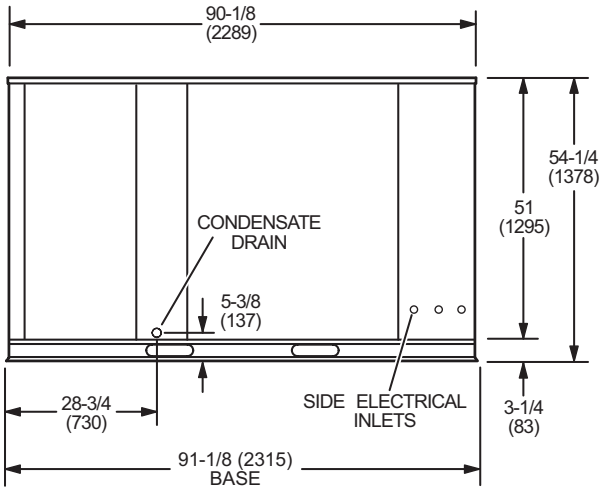
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
KCA180H Base Unit (Environ™ Coil)	441	201	403	183	543	247	577	262	52	1321	39 1/4	997
KCA180H Max. Unit (Environ™ Coil)	545	248	485	221	577	262	638	290	51	1295	42	1067
KCB240S Base Unit (Environ™ Coil)	432	196	392	178	573	260	632	287	51	1295	37	940
KCB240S Max. Unit (Environ™ Coil)	540	245	476	216	629	285	714	324	50 1/2	1283	39	991
KCB240S Base Unit (Fin/Tube Coil)	432	195	445	202	626	283	632	287	54 3/4	1391	39 1/2	1003
KCB240S Max. Unit (Fin/Tube Coil)	540	244	529	239	681	308	714	323	53 1/2	1359	42	1067

Base Unit - The unit with NO INTERNAL OPTIONS.

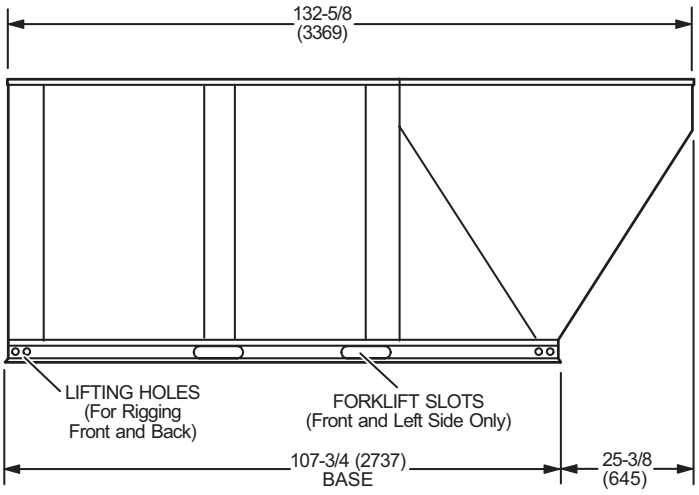
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW



END VIEW



SIDE VIEW

DIMENSIONS - UNIT

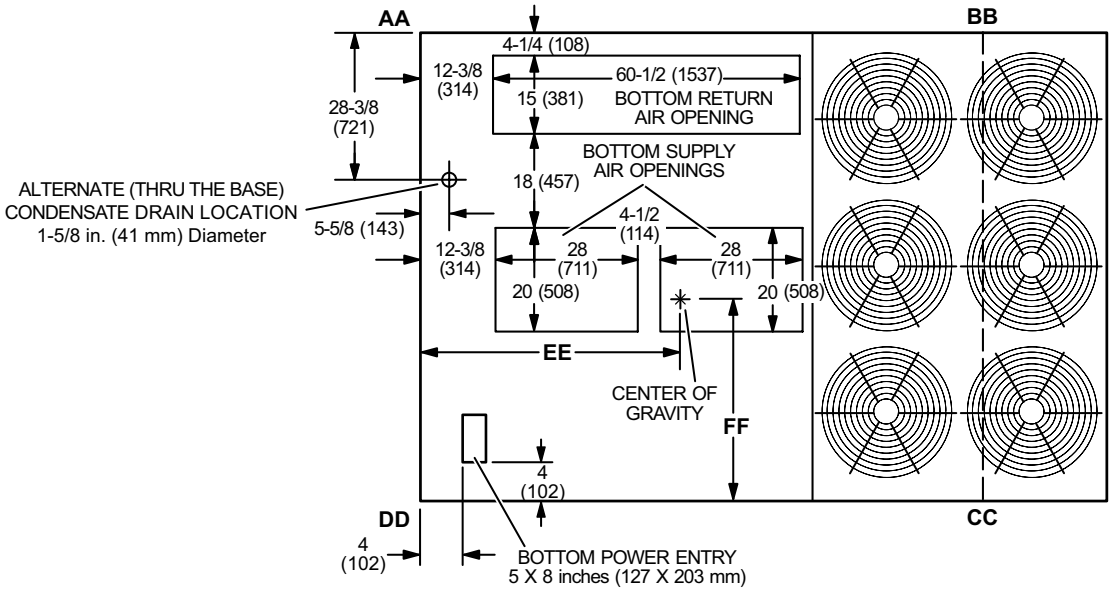
KCA210H | KCB240H | KCB300S

CORNER WEIGHTS | **CENTER OF GRAVITY**

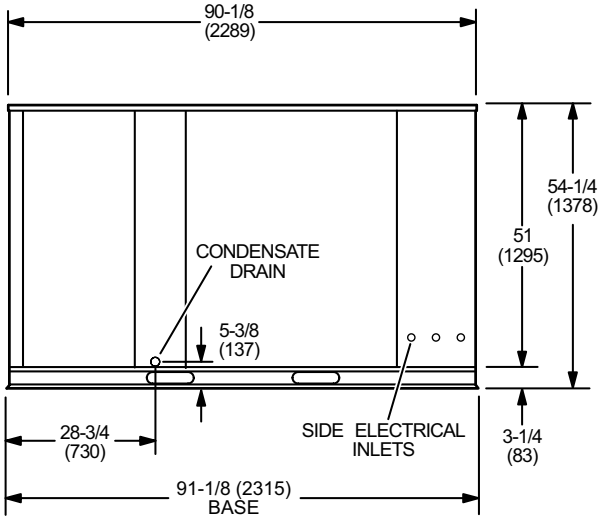
Model No.	AA		BB		CC		DD		EE		FF	
	lbs.	kg	lbs.	kg	lbs.	kg	lbs.	kg	in.	mm	in.	mm
KCA210H Base Unit (Environ™ Coil)	452	205	448	204	600	273	590	268	54	1372	39 1/4	997
KCA210H Max. Unit (Environ™ Coil)	557	253	536	244	635	288	652	296	53	1346	42	1067
KCA240H Base Unit (Environ™ Coil)	462	210	461	210	634	288	617	281	54 1/2	1384	38 3/4	984
KCA240H Max. Unit (Environ™ Coil)	568	258	550	250	668	304	679	308	53 1/2	1359	41 1/2	1054
KCB300S Base Unit (Environ™ Coil)	466	211	487	221	689	313	660	299	55	1397	37 1/2	953
KCB300S Max. Unit (Environ™ Coil)	574	260	578	262	723	328	718	326	54	1372	40 1/2	1029
KCB300S Base Unit (Fin/Tube Coil)	469	212	518	235	724	329	656	297	56 1/2	1435	38	965
KCB300S Max. Unit (Fin/Tube Coil)	575	260	606	274	758	343	719	327	55 1/4	1403	40 1/2	1029

Base Unit - The unit with NO INTERNAL OPTIONS.

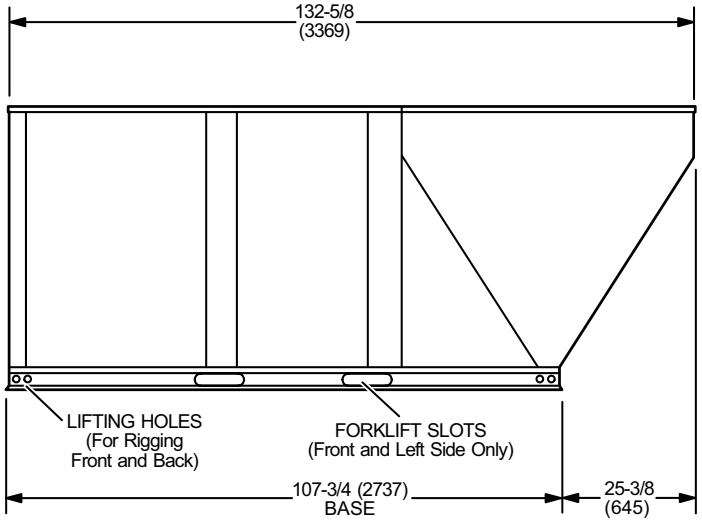
Max. Unit - The unit with ALL INTERNAL OPTIONS Installed. (Economizer, Standard Static Power Exhaust Fans, Controls, etc.). Does not include accessories external to unit.



TOP VIEW



END VIEW



SIDE VIEW

McMASTER-CARR

About Sound Levels

Close

Measured in decibels (dB), volume ratings indicate how much noise equipment makes. Some common volume levels include a whisper @ 20 dB, a refrigerator @ 40 dB, a conversation @ 60 dB, and a light machine shop @ 90 dB. OSHA recommends hearing protection for exposure to 80 dB and greater.

Direct-Drive Downdraft Roof-Mount Exhaust Fans



2

Direct-drive fans have fewer moving parts than belt-drive fans for less maintenance. More economical than upblast roof-mount exhaust fans, these draw stagnant and humid air out through roof and then direct it back toward the roof. All fans have a disconnect switch to turn off the power for servicing.

Note: Airflow depends on the resistance created by ductwork. This resistance, known as static pressure (SP), is measured in inches of water.

CAD For technical drawings and 3-D models, click on a part number.

						Fans Overall								Mounting Bas	
	Blade Dia.	Airflow @ Static Pressure	Volume	Motor Speed, rpm	Power, hp	Dia.	Ht.	Base Wd.	Wt., lbs.	Max. Ambient Temperature	Housing Material	Specifications Met		Each		E
Open Dripproof Motor Enclosure 120V AC, Single Phase—Hardwire																
2	11"	600 cfm @ 1/2 in. of H_2O 800 cfm @ 0 in. of H_2O	37 dB @ 15 ft.	1,625	3/16	23 3/4"	16 1/4"	19"	37	Not Rated	Aluminum	ETL Listed	2011K54	$499.68	2230K11	$14
2	12"	950 cfm @ 1/2 in. of H_2O 1,250 cfm @ 0 in. of H_2O	41 dB @ 15 ft.	1,625	1/4	26 1/4"	19 1/8"	21"	53	Not Rated	Aluminum	ETL Listed	2011K65	497.32	2230K13	15
2	14"	2,100 cfm @ 0 in. of H_2O 1,800 cfm @ 1/2 in. of H_2O	45 dB @ 15 ft.	1,625	1/2	29 3/4"	21 3/4"	21"	56	Not Rated	Aluminum	ETL Listed	2011K57	678.67	2230K13	15

APPENDIX 7.1:

OFF-SITE TRAFFIC NOISE CONTOURS

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: w/o Neighbours Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,592 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	259 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-7.81	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-25.05	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-29.01	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	60.8	58.9	57.2	51.1	59.7	60.3
Medium Trucks:	54.6	53.1	46.7	45.2	53.7	53.9
Heavy Trucks:	55.4	54.0	45.0	46.2	54.6	54.7
Vehicle Noise:	62.7	60.9	57.8	53.1	61.6	62.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	11	24	51	111
CNEL:	12	26	55	119

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: w/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,808 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	581 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-4.31	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-21.55	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-25.50	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.7	54.6	63.2	63.8
Medium Trucks:	58.1	56.6	50.2	48.7	57.2	57.4
Heavy Trucks:	59.0	57.5	48.5	49.7	58.1	58.2
Vehicle Noise:	66.2	64.4	61.3	56.6	65.1	65.6

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	19	41	88	190
CNEL:	20	44	94	203

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: e/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,628 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	563 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-4.45	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-21.69	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-25.64	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.2	62.3	60.5	54.5	63.1	63.7
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3
Heavy Trucks:	58.8	57.4	48.4	49.6	58.0	58.1
Vehicle Noise:	66.0	64.3	61.1	56.5	65.0	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	19	40	86	186
CNEL:	20	43	92	199

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: e/o Project Driveway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,628 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	563 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-4.45	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-21.69	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-25.64	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.2	62.3	60.5	54.5	63.1	63.7
Medium Trucks:	58.0	56.5	50.1	48.6	57.0	57.3
Heavy Trucks:	58.8	57.4	48.4	49.6	58.0	58.1
Vehicle Noise:	66.0	64.3	61.1	56.5	65.0	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	19	40	86	186
CNEL:	20	43	92	199

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,056 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,006 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.93	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.17	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.12	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.9	65.0	63.3	57.2	65.8	66.4
Medium Trucks:	60.7	59.2	52.9	51.3	59.8	60.0
Heavy Trucks:	61.6	60.1	51.1	52.4	60.7	60.8
Vehicle Noise:	68.8	67.0	63.9	59.2	67.8	68.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	28	61	132	283
CNEL:	30	65	141	304

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,056 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,006 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.93	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-19.17	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.12	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.7	62.8	61.1	55.0	63.6	64.2
Medium Trucks:	58.5	57.0	50.6	49.1	57.6	57.8
Heavy Trucks:	59.4	57.9	48.9	50.1	58.5	58.6
Vehicle Noise:	66.6	64.8	61.7	57.0	65.6	66.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	28	60	129	278
CNEL:	30	64	138	298

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,996 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.81	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-18.05	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.01	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.9	64.0	62.2	56.1	64.8	65.4
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	60.5	59.0	50.0	51.3	59.6	59.7
Vehicle Noise:	67.7	66.0	62.8	58.1	66.7	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	71	153	330
CNEL:	35	76	164	354

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,996 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.81	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.05	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.01	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.0	66.2	64.4	58.3	67.0	67.6
Medium Trucks:	61.8	60.3	54.0	52.4	60.9	61.1
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0
Vehicle Noise:	69.9	68.2	65.0	60.3	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	34	72	156	336
CNEL:	36	78	167	361

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Neighbours Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	312 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	31 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-16.50	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-33.74	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-37.69	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	52.1	50.2	48.4	42.4	51.0	51.6
Medium Trucks:	46.1	44.6	38.2	36.7	45.2	45.4
Heavy Trucks:	47.4	46.0	37.0	38.2	46.6	46.7
Vehicle Noise:	54.1	52.4	49.1	44.6	53.1	53.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	2	5	10	22
CNEL:	2	5	11	24

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Neighbours Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,136 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	214 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-8.14	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-25.38	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-29.34	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	60.4	58.5	56.8	50.7	59.3	59.9
Medium Trucks:	54.5	53.0	46.6	45.0	53.5	53.7
Heavy Trucks:	55.8	54.4	45.3	46.6	54.9	55.1
Vehicle Noise:	62.5	60.7	57.4	52.9	61.4	61.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	8	17	37	81
CNEL:	9	19	40	86

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 WB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,136 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	214 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-8.14	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-25.38	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-29.34	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	60.4	58.5	56.8	50.7	59.3	59.9
Medium Trucks:	54.5	53.0	46.6	45.0	53.5	53.7
Heavy Trucks:	55.8	54.4	45.3	46.6	54.9	55.1
Vehicle Noise:	62.5	60.7	57.4	52.9	61.4	61.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	8	17	37	81
CNEL:	9	19	40	86

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 EB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	2,712 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	271 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-7.11	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-24.34	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-28.30	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.5	59.6	57.8	51.7	60.4	61.0
Medium Trucks:	55.5	54.0	47.6	46.1	54.5	54.8
Heavy Trucks:	56.8	55.4	46.4	47.6	56.0	56.1
Vehicle Noise:	63.5	61.8	58.5	53.9	62.5	62.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	9	20	44	95
CNEL:	10	22	47	101

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,816 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	682 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.62	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.85	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.81	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.2	63.3	61.6	55.5	64.1	64.8
Medium Trucks:	59.0	57.5	51.2	49.6	58.1	58.3
Heavy Trucks:	59.9	58.5	49.4	50.7	59.0	59.2
Vehicle Noise:	67.1	65.4	62.2	57.5	66.1	66.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	22	47	102	219
CNEL:	23	51	109	235

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	6,816 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	682 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.62	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-20.85	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.81	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.1	61.2	59.4	53.3	62.0	62.6
Medium Trucks:	56.8	55.3	49.0	47.4	55.9	56.1
Heavy Trucks:	57.7	56.2	47.2	48.5	56.8	56.9
Vehicle Noise:	64.9	63.1	60.0	55.3	63.9	64.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	21	46	100	214
CNEL:	23	50	107	230

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,284 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,328 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.72	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.96	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.91	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.9	64.1	62.3	56.2	64.9	65.5
Medium Trucks:	59.7	58.2	51.9	50.3	58.8	59.0
Heavy Trucks:	60.6	59.1	50.1	51.4	59.7	59.8
Vehicle Noise:	67.8	66.0	62.9	58.2	66.8	67.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	72	155	335
CNEL:	36	77	167	359

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,284 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,328 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.72	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.96	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.91	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.1	66.2	64.5	58.4	67.0	67.7
Medium Trucks:	61.9	60.4	54.1	52.5	61.0	61.2
Heavy Trucks:	62.8	61.4	52.3	53.6	61.9	62.1
Vehicle Noise:	70.0	68.2	65.1	60.4	69.0	69.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	34	74	158	341
CNEL:	37	79	170	366

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: w/o Neighbours Blvd.
Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,240 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	324 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-6.85	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-24.08	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-28.04	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	61.8	59.9	58.1	52.1	60.7	61.3
Medium Trucks:	55.6	54.1	47.7	46.2	54.6	54.9
Heavy Trucks:	56.4	55.0	46.0	47.2	55.6	55.7
Vehicle Noise:	63.6	61.9	58.7	54.1	62.6	63.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	13	28	60	129
CNEL:	14	30	64	138

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: w/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,979 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	798 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.93	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.17	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.13	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.7	63.8	62.0	56.0	64.6	65.2
Medium Trucks:	59.5	58.0	51.6	50.1	58.5	58.8
Heavy Trucks:	60.3	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	67.5	65.8	62.6	58.0	66.5	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	23	51	109	234
CNEL:	25	54	117	251

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: e/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,567 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	557 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-4.49	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-21.73	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-25.69	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.1	62.2	60.5	54.4	63.0	63.6
Medium Trucks:	57.9	56.4	50.1	48.5	57.0	57.2
Heavy Trucks:	58.8	57.3	48.3	49.6	57.9	58.0
Vehicle Noise:	66.0	64.2	61.1	56.4	65.0	65.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	18	40	86	184
CNEL:	20	43	92	198

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: e/o Project Driveway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,666 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	767 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.11	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.34	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.30	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.6	61.9	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.9	58.4	58.6
Heavy Trucks:	60.2	58.7	49.7	51.0	59.3	59.4
Vehicle Noise:	67.4	65.6	62.5	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	23	49	106	228
CNEL:	24	53	114	245

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,557 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,256 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.96	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.20	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.16	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.9	66.0	64.2	58.2	66.8	67.4
Medium Trucks:	61.7	60.2	53.8	52.3	60.7	61.0
Heavy Trucks:	62.5	61.1	52.1	53.3	61.7	61.8
Vehicle Noise:	69.7	68.0	64.8	60.2	68.7	69.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	71	153	329
CNEL:	35	76	164	352

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	12,557 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,256 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.96	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-18.20	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.16	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.7	63.8	62.0	56.0	64.6	65.2
Medium Trucks:	59.5	58.0	51.6	50.1	58.5	58.8
Heavy Trucks:	60.3	58.9	49.9	51.1	59.5	59.6
Vehicle Noise:	67.5	65.8	62.7	58.0	66.5	67.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	32	69	150	322
CNEL:	35	74	160	346

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,637 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,564 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.01	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.25	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.20	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	64.8	63.0	56.9	65.6	66.2
Medium Trucks:	60.4	58.9	52.6	51.0	59.5	59.7
Heavy Trucks:	61.3	59.9	50.8	52.1	60.4	60.5
Vehicle Noise:	68.5	66.8	63.6	58.9	67.5	67.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	37	80	173	373
CNEL:	40	86	186	400

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,637 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,564 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.01	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.25	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.20	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.1	67.8	68.4
Medium Trucks:	62.6	61.1	54.8	53.2	61.7	61.9
Heavy Trucks:	63.5	62.1	53.0	54.3	62.6	62.8
Vehicle Noise:	70.7	69.0	65.8	61.1	69.7	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	82	177	380
CNEL:	41	88	189	408

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Neighbours Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	344 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	34 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-16.07	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-33.31	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-37.27	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	52.5	50.6	48.8	42.8	51.4	52.0
Medium Trucks:	46.5	45.0	38.7	37.1	45.6	45.8
Heavy Trucks:	47.8	46.4	37.4	38.6	47.0	47.1
Vehicle Noise:	54.5	52.8	49.5	45.0	53.5	54.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	2	5	11	24
CNEL:	3	6	12	26

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Neighbours Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,572 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	357 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-5.91	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-23.15	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-27.10	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.7	60.8	59.0	52.9	61.6	62.2
Medium Trucks:	56.7	55.2	48.8	47.3	55.7	56.0
Heavy Trucks:	58.0	56.6	47.6	48.8	57.2	57.3
Vehicle Noise:	64.7	63.0	59.7	55.1	63.7	64.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	11	24	53	114
CNEL:	12	26	56	122

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 WB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,573 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	357 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-5.91	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-23.15	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-27.10	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.7	60.8	59.0	52.9	61.6	62.2
Medium Trucks:	56.7	55.2	48.8	47.3	55.7	56.0
Heavy Trucks:	58.0	56.6	47.6	48.8	57.2	57.3
Vehicle Noise:	64.7	63.0	59.7	55.1	63.7	64.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	11	24	53	114
CNEL:	12	26	56	122

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 EB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,661 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	366 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-5.80	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-23.04	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-27.00	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.8	60.9	59.1	53.1	61.7	62.3
Medium Trucks:	56.8	55.3	48.9	47.4	55.8	56.1
Heavy Trucks:	58.1	56.7	47.7	48.9	57.3	57.4
Vehicle Noise:	64.8	63.1	59.8	55.2	63.8	64.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	12	25	54	115
CNEL:	12	27	57	124

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,000 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	900 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.41	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.65	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.60	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.5	64.6	62.8	56.7	65.4	66.0
Medium Trucks:	60.2	58.7	52.4	50.8	59.3	59.5
Heavy Trucks:	61.1	59.7	50.6	51.9	60.2	60.4
Vehicle Noise:	68.3	66.6	63.4	58.7	67.3	67.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	26	57	122	263
CNEL:	28	61	131	282

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,000 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	900 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.41	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-19.65	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.60	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.3	62.4	60.6	54.5	63.2	63.8
Medium Trucks:	58.0	56.5	50.2	48.6	57.1	57.3
Heavy Trucks:	58.9	57.5	48.4	49.7	58.0	58.1
Vehicle Noise:	66.1	64.4	61.2	56.5	65.1	65.5

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	26	56	120	258
CNEL:	28	60	129	277

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,699 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,570 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.01	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.23	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.19	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	64.8	63.0	57.0	65.6	66.2
Medium Trucks:	60.4	58.9	52.6	51.0	59.5	59.7
Heavy Trucks:	61.3	59.9	50.8	52.1	60.4	60.6
Vehicle Noise:	68.5	66.8	63.6	58.9	67.5	67.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	37	81	174	374
CNEL:	40	86	186	401

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: E+P
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,699 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,570 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.01	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.23	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.19	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	62.7	61.2	54.8	53.2	61.7	61.9
Heavy Trucks:	63.5	62.1	53.0	54.3	62.7	62.8
Vehicle Noise:	70.7	69.0	65.8	61.1	69.7	70.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	82	177	381
CNEL:	41	88	190	409

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: w/o Neighbours Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,804 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	380 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-6.15	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-23.39	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-27.34	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.5	60.6	58.8	52.8	61.4	62.0
Medium Trucks:	56.3	54.8	48.4	46.9	55.3	55.6
Heavy Trucks:	57.1	55.7	46.7	47.9	56.3	56.4
Vehicle Noise:	64.3	62.6	59.4	54.8	63.3	63.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	14	31	66	143
CNEL:	15	33	71	153

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: w/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,572 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	757 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.16	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.40	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.35	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.8	58.3	58.5
Heavy Trucks:	60.1	58.7	49.6	50.9	59.3	59.4
Vehicle Noise:	67.3	65.6	62.4	57.8	66.3	66.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	23	49	105	226
CNEL:	24	52	113	243

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: e/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,584 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	758 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.15	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.39	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.35	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.5
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4
Vehicle Noise:	67.3	65.6	62.4	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	23	49	105	227
CNEL:	24	52	113	243

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: e/o Project Driveway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	7,596 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	760 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-3.15	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-20.38	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-24.34	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.6
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4
Vehicle Noise:	67.3	65.6	62.4	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	23	49	105	227
CNEL:	24	52	113	243

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,976 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,198 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.17	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.41	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.36	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	65.8	64.0	58.0	66.6	67.2
Medium Trucks:	61.5	60.0	53.6	52.1	60.5	60.8
Heavy Trucks:	62.3	60.9	51.9	53.1	61.5	61.6
Vehicle Noise:	69.5	67.8	64.6	60.0	68.5	69.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	32	69	148	318
CNEL:	34	74	159	342

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,976 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,198 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-1.17	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-18.41	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.36	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.5	63.6	61.8	55.8	64.4	65.0
Medium Trucks:	59.3	57.8	51.4	49.9	58.3	58.5
Heavy Trucks:	60.1	58.7	49.7	50.9	59.3	59.4
Vehicle Noise:	67.3	65.6	62.4	57.8	66.3	66.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	31	67	145	312
CNEL:	33	72	155	335

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,912 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,591 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.07	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.17	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.13	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	64.8	63.1	57.0	65.6	66.2
Medium Trucks:	60.5	59.0	52.6	51.1	59.6	59.8
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	68.6	66.8	63.7	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	81	175	377
CNEL:	40	87	188	405

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,912 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,591 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.07	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.17	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.13	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.3	59.2	67.8	68.4
Medium Trucks:	62.7	61.2	54.8	53.3	61.8	62.0
Heavy Trucks:	63.6	62.1	53.1	54.4	62.7	62.8
Vehicle Noise:	70.8	69.0	65.9	61.2	69.7	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	83	179	385
CNEL:	41	89	192	413

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Neighbours Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,080 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	108 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-11.11	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-28.34	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-32.30	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	57.5	55.6	53.8	47.8	56.4	57.0
Medium Trucks:	51.5	50.0	43.6	42.1	50.5	50.8
Heavy Trucks:	52.8	51.4	42.4	43.6	52.0	52.1
Vehicle Noise:	59.5	57.8	54.5	49.9	58.5	58.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	5	11	24	51
CNEL:	5	12	25	55

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Neighbours Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,224 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	422 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-5.18	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-22.42	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-26.38	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.4	61.5	59.7	53.7	62.3	62.9
Medium Trucks:	57.4	55.9	49.6	48.0	56.5	56.7
Heavy Trucks:	58.7	57.3	48.3	49.5	57.9	58.0
Vehicle Noise:	65.4	63.7	60.4	55.9	64.4	64.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	13	27	59	127
CNEL:	14	29	63	136

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 WB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	4,596 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	460 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-4.82	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-22.05	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-26.01	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	63.8	61.9	60.1	54.0	62.7	63.3
Medium Trucks:	57.8	56.3	49.9	48.4	56.8	57.1
Heavy Trucks:	59.1	57.7	48.7	49.9	58.3	58.4
Vehicle Noise:	65.8	64.1	60.8	56.2	64.8	65.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	13	29	62	134
CNEL:	14	31	67	144

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 EB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	10,632 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,063 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-1.17	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-18.41	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-22.37	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.4	65.5	63.7	57.7	66.3	66.9
Medium Trucks:	61.4	59.9	53.6	52.0	60.5	60.7
Heavy Trucks:	62.8	61.3	52.3	53.5	61.9	62.0
Vehicle Noise:	69.4	67.7	64.4	59.9	68.4	68.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	24	51	109	235
CNEL:	25	54	117	252

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,360 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	936 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.24	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.48	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.43	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.6	64.7	63.0	56.9	65.5	66.1
Medium Trucks:	60.4	58.9	52.5	51.0	59.5	59.7
Heavy Trucks:	61.3	59.8	50.8	52.0	60.4	60.5
Vehicle Noise:	68.5	66.7	63.6	58.9	67.4	67.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	27	58	125	270
CNEL:	29	62	135	290

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,360 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	936 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.24	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-19.48	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.43	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.4	62.5	60.8	54.7	63.3	63.9
Medium Trucks:	58.2	56.7	50.3	48.8	57.2	57.5
Heavy Trucks:	59.0	57.6	48.6	49.8	58.2	58.3
Vehicle Noise:	66.3	64.5	61.4	56.7	65.2	65.7

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	26	57	123	265
CNEL:	28	61	132	284

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,768 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,577 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.03	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.21	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.17	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	64.8	63.0	57.0	65.6	66.2
Medium Trucks:	60.5	59.0	52.6	51.1	59.5	59.7
Heavy Trucks:	61.3	59.9	50.9	52.1	60.5	60.6
Vehicle Noise:	68.5	66.8	63.6	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	81	174	375
CNEL:	40	87	187	402

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	15,768 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,577 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.03	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.21	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.17	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.9	67.0	65.2	59.2	67.8	68.4
Medium Trucks:	62.7	61.2	54.8	53.3	61.7	62.0
Heavy Trucks:	63.5	62.1	53.1	54.3	62.7	62.8
Vehicle Noise:	70.7	69.0	65.8	61.2	69.7	70.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	82	178	383
CNEL:	41	88	190	410

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: w/o Neighbours Blvd.
Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	3,804 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	380 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-6.15	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-23.39	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-27.34	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	62.5	60.6	58.8	52.8	61.4	62.0
Medium Trucks:	56.3	54.8	48.4	46.9	55.3	55.6
Heavy Trucks:	57.1	55.7	46.7	47.9	56.3	56.4
Vehicle Noise:	64.3	62.6	59.4	54.8	63.3	63.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	14	31	66	143
CNEL:	15	33	71	153

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: w/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,712 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	871 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.55	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.79	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.74	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.1	64.2	62.4	56.4	65.0	65.6
Medium Trucks:	59.9	58.4	52.0	50.5	58.9	59.1
Heavy Trucks:	60.7	59.3	50.3	51.5	59.9	60.0
Vehicle Noise:	67.9	66.2	63.0	58.4	66.9	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	25	54	115	249
CNEL:	27	57	124	267

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: e/o Defrain Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,838 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	884 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.49	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.73	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.68	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.1	64.2	62.5	56.4	65.0	65.7
Medium Trucks:	59.9	58.4	52.1	50.5	59.0	59.2
Heavy Trucks:	60.8	59.4	50.3	51.6	59.9	60.1
Vehicle Noise:	68.0	66.2	63.1	58.4	67.0	67.4

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	25	54	117	251
CNEL:	27	58	125	269

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FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: e/o Project Driveway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	8,622 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	862 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	39.862
Medium Trucks:	39.640
Heavy Trucks:	39.662

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.59	1.37	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.83	1.41	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.79	1.41	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.0	64.1	62.4	56.3	64.9	65.5
Medium Trucks:	59.8	58.3	52.0	50.4	58.9	59.1
Heavy Trucks:	60.7	59.2	50.2	51.5	59.8	59.9
Vehicle Noise:	67.9	66.1	63.0	58.3	66.9	67.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	25	53	115	247
CNEL:	26	57	123	265

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,002 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.81	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-18.05	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.01	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	68.1	66.2	64.4	58.3	67.0	67.6
Medium Trucks:	61.8	60.3	54.0	52.4	60.9	61.1
Heavy Trucks:	62.7	61.3	52.2	53.5	61.8	62.0
Vehicle Noise:	69.9	68.2	65.0	60.3	68.9	69.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	34	72	156	336
CNEL:	36	78	167	361

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: w/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	13,002 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,300 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-0.81	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-18.05	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-22.01	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	65.9	64.0	62.2	56.1	64.8	65.4
Medium Trucks:	59.6	58.1	51.8	50.2	58.7	58.9
Heavy Trucks:	60.5	59.1	50.0	51.3	59.6	59.7
Vehicle Noise:	67.7	66.0	62.8	58.1	66.7	67.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	33	71	153	330
CNEL:	35	76	164	354

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.
Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,368 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,637 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.19	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.05	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.01	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.9	65.0	63.2	57.1	65.8	66.4
Medium Trucks:	60.6	59.1	52.8	51.2	59.7	59.9
Heavy Trucks:	61.5	60.1	51.0	52.3	60.6	60.7
Vehicle Noise:	68.7	67.0	63.8	59.1	67.7	68.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	83	178	385
CNEL:	41	89	191	412

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Hobsonway
Road Segment: e/o Lovekin Blvd.

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,368 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,637 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.19	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.05	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.01	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.1	67.2	65.4	59.3	68.0	68.6
Medium Trucks:	62.8	61.3	55.0	53.4	61.9	62.1
Heavy Trucks:	63.7	62.3	53.2	54.5	62.8	63.0
Vehicle Noise:	70.9	69.2	66.0	61.3	69.9	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	84	182	392
CNEL:	42	91	195	421

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Neighbours Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	1,080 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	108 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-11.11	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-28.34	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-32.30	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	57.5	55.6	53.8	47.8	56.4	57.0
Medium Trucks:	51.5	50.0	43.6	42.1	50.5	50.8
Heavy Trucks:	52.8	51.4	42.4	43.6	52.0	52.1
Vehicle Noise:	59.5	57.8	54.5	49.9	58.5	58.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	5	11	24	51
CNEL:	5	12	25	55

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Neighbours Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,364 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	536 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-4.14	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-21.38	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-25.34	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.4	62.5	60.8	54.7	63.3	63.9
Medium Trucks:	58.5	57.0	50.6	49.0	57.5	57.7
Heavy Trucks:	59.8	58.4	49.3	50.6	58.9	59.1
Vehicle Noise:	66.5	64.7	61.4	56.9	65.4	65.9

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	15	32	69	149
CNEL:	16	34	74	159

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 WB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	5,736 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	574 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-3.85	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-21.09	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-25.05	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.7	62.8	61.1	55.0	63.6	64.2
Medium Trucks:	58.8	57.2	50.9	49.3	57.8	58.0
Heavy Trucks:	60.1	58.6	49.6	50.9	59.2	59.3
Vehicle Noise:	66.8	65.0	61.7	57.2	65.7	66.2

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	16	34	72	156
CNEL:	17	36	77	167

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Neighbours Blvd.
Road Segment: s/o I-10 EB Ramp

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	11,259 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,126 vehicles
Vehicle Speed:	40 mph
Near/Far Lane Distance:	12 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	30.0 feet
Centerline Dist. to Observer:	30.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	29.816
Medium Trucks:	29.518
Heavy Trucks:	29.547

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	66.51	-0.92	3.26	-1.20	*-4.49*	0.000	0.000
Medium Trucks:	77.72	-18.16	3.33	-1.20	*-4.86*	0.000	0.000
Heavy Trucks:	82.99	-22.12	3.32	-1.20	*-5.77*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	67.7	65.8	64.0	57.9	66.6	67.2
Medium Trucks:	61.7	60.2	53.8	52.3	60.7	61.0
Heavy Trucks:	63.0	61.6	52.5	53.8	62.1	62.3
Vehicle Noise:	69.7	68.0	64.7	60.1	68.7	69.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	24	53	113	244
CNEL:	26	56	121	261

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,588 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	959 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.13	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-19.37	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.33	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.7	64.8	63.1	57.0	65.6	66.2
Medium Trucks:	60.5	59.0	52.6	51.1	59.6	59.8
Heavy Trucks:	61.4	59.9	50.9	52.2	60.5	60.6
Vehicle Noise:	68.6	66.8	63.7	59.0	67.5	68.0

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	27	59	127	275
CNEL:	29	63	137	294

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Lovekin Blvd.
Road Segment: n/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	9,588 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	959 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	-2.13	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-19.37	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-23.33	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	64.5	62.6	60.9	54.8	63.4	64.0
Medium Trucks:	58.3	56.8	50.4	48.9	57.4	57.6
Heavy Trucks:	59.1	57.7	48.7	49.9	58.3	58.4
Vehicle Noise:	66.4	64.6	61.5	56.8	65.3	65.8

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	27	58	125	269
CNEL:	29	62	134	289

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,110 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,611 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	55.0 feet
Centerline Dist. to Observer:	55.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	53.907
Medium Trucks:	53.743
Heavy Trucks:	53.759

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.12	-0.59	-1.20	*-4.67*	0.000	0.000
Medium Trucks:	79.45	-17.12	-0.57	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.07	-0.58	-1.20	*-5.38*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	66.8	64.9	63.1	57.1	65.7	66.3
Medium Trucks:	60.6	59.0	52.7	51.1	59.6	59.8
Heavy Trucks:	61.4	60.0	50.9	52.2	60.5	60.7
Vehicle Noise:	68.6	66.9	63.7	59.1	67.6	68.1

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	38	82	177	380
CNEL:	41	88	189	408

Wednesday, February 16, 2022

FHWA-RD-77-108 HIGHWAY NOISE PREDICTION MODEL

Scenario: C+P
Road Name: Lovekin Blvd.
Road Segment: s/o Hobsonway

Project Name: 2626 Edelweiss Sustainabl
Job Number: 14338

SITE SPECIFIC INPUT DATA

Highway Data

Average Daily Traffic (Adt):	16,110 vehicles
Peak Hour Percentage:	10.00%
Peak Hour Volume:	1,611 vehicles
Vehicle Speed:	45 mph
Near/Far Lane Distance:	24 feet

Site Data

Barrier Height:	**0.0 feet**
Barrier Type (0-Wall, 1-Berm):	0.0
Centerline Dist. to Barrier:	40.0 feet
Centerline Dist. to Observer:	40.0 feet
Barrier Distance to Observer:	0.0 feet
Observer Height (Above Pad):	5.0 feet
Pad Elevation:	0.0 feet
Road Elevation:	0.0 feet
Road Grade:	0.0%
Left View:	-90.0 degrees
Right View:	90.0 degrees

NOISE MODEL INPUTS

Site Conditions (Hard = 10, Soft = 15)

Autos:	15
Medium Trucks (2 Axles):	15
Heavy Trucks (3+ Axles):	15

Vehicle Mix

VehicleType	*Day*	*Evening*	*Night*	*Daily*
Autos:	77.5%	12.9%	9.6%	97.42%
Medium Trucks:	84.8%	4.9%	10.3%	1.84%
Heavy Trucks:	86.5%	2.7%	10.8%	0.74%

Noise Source Elevations (in feet)

Autos:	0.000		
Medium Trucks:	2.297		
Heavy Trucks:	8.006	*Grade Adjustment:*	0.0

Lane Equivalent Distance (in feet)

Autos:	38.484
Medium Trucks:	38.253
Heavy Trucks:	38.276

FHWA Noise Model Calculations

VehicleType	*REMEL*	*Traffic Flow*	*Distance*	*Finite Road*	*Fresnel*	*Barrier Atten*	*Berm Atten*
Autos:	68.46	0.12	1.60	-1.20	*-4.59*	0.000	0.000
Medium Trucks:	79.45	-17.12	1.64	-1.20	*-4.87*	0.000	0.000
Heavy Trucks:	84.25	-21.07	1.64	-1.20	*-5.56*	0.000	0.000

Unmitigated Noise Levels (without Topo and barrier attenuation)

VehicleType	*Leq Peak Hour*	*Leq Day*	*Leq Evening*	*Leq Night*	*Ldn*	*CNEL*
Autos:	69.0	67.1	65.3	59.3	67.9	68.5
Medium Trucks:	62.8	61.3	54.9	53.4	61.8	62.1
Heavy Trucks:	63.6	62.2	53.2	54.4	62.8	62.9
Vehicle Noise:	70.8	69.1	65.9	61.3	69.8	70.3

Centerline Distance to Noise Contour (in feet)

	70 dBA	*65 dBA*	*60 dBA*	*55 dBA*
Ldn:	39	84	180	388
CNEL:	42	90	193	416

Wednesday, February 16, 2022

APPENDIX 9.1:

CADNAA OPERATIONAL NOISE MODEL INPUTS

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14338-2626 Edelweiss Sustainable Farms - Operation

CadnaA Noise Prediction Model: 14338-02_Operationa.cna
Date: 24.02.22
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	1
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.50
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr				Limit. Value				Land Use			Height		Coordinates		
			Ld	Le	Ln	CNEL	Ld	Le	Ln	CNEL	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	46.7	45.0	46.7	53.3	0.0	0.0	0.0	65.0				5.00	a	7059708.63	2170869.60	5.00
RECEIVERS		R2	47.1	45.4	47.1	53.7	0.0	0.0	0.0	65.0				5.00	a	7061188.54	2169399.46	5.00
RECEIVERS		R3	57.7	56.0	57.7	64.3	0.0	0.0	0.0	65.0				5.00	a	7058313.20	2169242.71	5.00
RECEIVERS		R4	46.7	44.9	46.7	53.2	0.0	0.0	0.0	65.0				5.00	a	7056837.93	2169207.39	5.00

Point Source(s)

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Trash12	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058502.36	2169298.32	5.00
POINTSOURCE		Trash11	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058687.08	2169304.57	5.00
POINTSOURCE		Trash10	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058864.51	2169310.12	5.00
POINTSOURCE		Trash09	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059116.72	2169319.22	5.00
POINTSOURCE		Trash08	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059293.85	2169325.47	5.00
POINTSOURCE		Trash07	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059479.26	2169331.20	5.00
POINTSOURCE		Trash06	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059505.30	2168487.97	5.00
POINTSOURCE		Trash05	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059321.97	2168479.64	5.00
POINTSOURCE		Trash04	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7059145.41	2168473.91	5.00
POINTSOURCE		Trash03	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058891.76	2168466.10	5.00
POINTSOURCE		Trash02	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058715.72	2168459.85	5.00
POINTSOURCE		Trash01	89.0	89.0	89.0	Lw	89		120.00	30.00	90.00	0.0	5.00	a	7058531.35	2168454.12	5.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC25T001	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059103.22	2169194.49	31.00
POINTSOURCE		AC25T002	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059103.75	2169171.05	31.00
POINTSOURCE		AC25T003	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059105.13	2169150.29	31.00
POINTSOURCE		AC25T004	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059106.18	2169125.98	31.00
POINTSOURCE		AC25T005	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059106.18	2169103.76	31.00
POINTSOURCE		AC25T006	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059107.57	2169082.58	31.00
POINTSOURCE		AC25T007	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059107.57	2169046.12	31.00
POINTSOURCE		AC25T008	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059108.61	2169023.90	31.00
POINTSOURCE		AC25T009	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059109.65	2169003.41	31.00
POINTSOURCE		AC25T010	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059109.65	2168981.54	31.00
POINTSOURCE		AC25T011	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059111.73	2168957.58	31.00
POINTSOURCE		AC25T012	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059111.73	2168935.01	31.00
POINTSOURCE		AC25T013	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059205.48	2168937.79	31.00
POINTSOURCE		AC25T014	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059204.09	2168958.62	31.00
POINTSOURCE		AC25T015	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059203.40	2168983.27	31.00
POINTSOURCE		AC25T016	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059202.70	2169005.15	31.00
POINTSOURCE		AC25T017	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059202.36	2169026.33	31.00
POINTSOURCE		AC25T018	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059201.32	2169049.59	31.00
POINTSOURCE		AC25T019	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059200.27	2169084.66	31.00
POINTSOURCE		AC25T020	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059199.23	2169106.88	31.00
POINTSOURCE		AC25T021	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059198.88	2169130.49	31.00
POINTSOURCE		AC25T022	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059198.19	2169153.06	31.00
POINTSOURCE		AC25T023	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059197.15	2169174.24	31.00
POINTSOURCE		AC25T024	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059196.80	2169196.81	31.00
POINTSOURCE		AC25T025	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059379.96	2169159.31	17.00
POINTSOURCE		AC25T026	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059285.00	2169200.74	17.00
POINTSOURCE		AC25T027	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059293.50	2168963.83	17.00
POINTSOURCE		AC25T028	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059384.47	2169011.40	17.00
POINTSOURCE		AC25T029	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059387.25	2168944.04	17.00
POINTSOURCE		AC25T030	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059380.66	2169136.74	17.00
POINTSOURCE		AC25T031	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059382.04	2169090.91	17.00
POINTSOURCE		AC25T032	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059384.13	2169032.58	17.00
POINTSOURCE		AC25T033	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059378.57	2169203.06	17.00
POINTSOURCE		AC25T034	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059287.95	2169110.01	17.00
POINTSOURCE		AC25T035	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059291.42	2169009.66	17.00
POINTSOURCE		AC25T036	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059287.95	2169132.23	17.00
POINTSOURCE		AC25T037	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059385.17	2168989.52	17.00
POINTSOURCE		AC25T038	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059385.86	2168964.87	17.00
POINTSOURCE		AC25T039	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059289.34	2169088.83	17.00
POINTSOURCE		AC25T040	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059383.09	2169055.84	17.00
POINTSOURCE		AC25T041	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059381.00	2169113.13	17.00
POINTSOURCE		AC25T042	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059378.92	2169180.49	17.00
POINTSOURCE		AC25T043	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059291.42	2168987.79	17.00
POINTSOURCE		AC25T044	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059285.52	2169177.30	17.00
POINTSOURCE		AC25T045	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059290.38	2169030.15	17.00
POINTSOURCE		AC25T046	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059286.91	2169156.54	17.00
POINTSOURCE		AC25T047	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059289.34	2169052.37	17.00
POINTSOURCE		AC25T048	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059293.50	2168941.26	17.00
POINTSOURCE		AC25T049	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059467.63	2169138.48	17.00
POINTSOURCE		AC25T050	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059471.11	2168994.04	17.00
POINTSOURCE		AC25T051	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059467.63	2169116.26	17.00
POINTSOURCE		AC25T052	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059473.19	2168970.08	17.00
POINTSOURCE		AC25T053	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059560.69	2169119.38	17.00
POINTSOURCE		AC25T054	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059561.73	2169097.16	17.00
POINTSOURCE		AC25T055	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059565.55	2168971.12	17.00
POINTSOURCE		AC25T056	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059473.19	2168947.51	17.00
POINTSOURCE		AC25T057	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059558.61	2169186.74	17.00
POINTSOURCE		AC25T058	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059558.26	2169209.31	17.00
POINTSOURCE		AC25T059	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059564.86	2168995.77	17.00
POINTSOURCE		AC25T060	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059469.02	2169095.08	17.00
POINTSOURCE		AC25T061	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059464.68	2169206.99	17.00
POINTSOURCE		AC25T062	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059566.94	2168950.29	17.00
POINTSOURCE		AC25T063	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059471.11	2169015.91	17.00
POINTSOURCE		AC25T064	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059465.20	2169183.55	17.00
POINTSOURCE		AC25T065	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059466.59	2169162.79	17.00
POINTSOURCE		AC25T066	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059564.16	2169017.65	17.00
POINTSOURCE		AC25T067	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059559.65	2169165.56	17.00
POINTSOURCE		AC25T068	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059563.82	2169038.83	17.00
POINTSOURCE		AC25T069	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059470.07	2169036.40	17.00
POINTSOURCE		AC25T070	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059469.02	2169058.62	17.00
POINTSOURCE		AC25T071	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059562.77	2169062.09	17.00
POINTSOURCE		AC25T072	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059560.34	2169142.99	17.00
POINTSOURCE		AC25T073	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058886.38	2169184.83	17.00
POINTSOURCE		AC25T074	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058889.86	2169072.68	17.00
POINTSOURCE		AC25T075	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058794.72	2169138.31	17.00
POINTSOURCE		AC25T076	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058793.33	2169159.07	17.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC25T077	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058799.23	2168969.56	17.00
POINTSOURCE		AC25T078	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058890.90	2169037.61	17.00
POINTSOURCE		AC25T079	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058892.29	2168993.17	17.00
POINTSOURCE		AC25T080	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058797.15	2169070.60	17.00
POINTSOURCE		AC25T081	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058795.76	2169091.78	17.00
POINTSOURCE		AC25T082	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058891.94	2169014.35	17.00
POINTSOURCE		AC25T083	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058795.76	2169114.00	17.00
POINTSOURCE		AC25T084	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058886.73	2169162.26	17.00
POINTSOURCE		AC25T085	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058801.32	2168923.03	17.00
POINTSOURCE		AC25T086	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058892.98	2168971.29	17.00
POINTSOURCE		AC25T087	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058797.15	2169034.14	17.00
POINTSOURCE		AC25T088	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058887.77	2169141.08	17.00
POINTSOURCE		AC25T089	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058888.47	2169118.51	17.00
POINTSOURCE		AC25T090	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058792.81	2169182.51	17.00
POINTSOURCE		AC25T091	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058895.07	2168925.81	17.00
POINTSOURCE		AC25T092	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058799.23	2168991.43	17.00
POINTSOURCE		AC25T093	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058801.32	2168945.60	17.00
POINTSOURCE		AC25T094	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058798.19	2169011.92	17.00
POINTSOURCE		AC25T095	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058888.82	2169094.90	17.00
POINTSOURCE		AC25T096	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058893.68	2168946.64	17.00
POINTSOURCE		AC25T097	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058620.59	2168917.82	17.00
POINTSOURCE		AC25T098	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058714.34	2168920.60	17.00
POINTSOURCE		AC25T099	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058612.08	2169177.30	17.00
POINTSOURCE		AC25T100	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058705.66	2169179.63	17.00
POINTSOURCE		AC25T101	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058708.09	2169089.70	17.00
POINTSOURCE		AC25T102	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058615.03	2169086.57	17.00
POINTSOURCE		AC25T103	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058706.00	2169157.06	17.00
POINTSOURCE		AC25T104	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058707.04	2169135.88	17.00
POINTSOURCE		AC25T105	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058712.25	2168966.08	17.00
POINTSOURCE		AC25T106	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058710.17	2169032.40	17.00
POINTSOURCE		AC25T107	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058616.42	2169028.93	17.00
POINTSOURCE		AC25T108	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058712.95	2168941.43	17.00
POINTSOURCE		AC25T109	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058616.42	2169065.39	17.00
POINTSOURCE		AC25T110	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058711.56	2168987.96	17.00
POINTSOURCE		AC25T111	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058707.74	2169113.31	17.00
POINTSOURCE		AC25T112	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058711.21	2169009.14	17.00
POINTSOURCE		AC25T113	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058618.50	2168964.35	17.00
POINTSOURCE		AC25T114	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058709.13	2169067.47	17.00
POINTSOURCE		AC25T115	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058613.99	2169133.10	17.00
POINTSOURCE		AC25T116	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058612.60	2169153.86	17.00
POINTSOURCE		AC25T117	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058618.50	2168986.22	17.00
POINTSOURCE		AC25T118	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058617.46	2169006.71	17.00
POINTSOURCE		AC25T119	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058620.59	2168940.39	17.00
POINTSOURCE		AC25T120	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058615.03	2169108.79	17.00
POINTSOURCE		AC25T121	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058434.30	2169101.50	17.00
POINTSOURCE		AC25T122	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058527.36	2169082.40	17.00
POINTSOURCE		AC25T123	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058435.69	2169021.64	17.00
POINTSOURCE		AC25T124	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058431.87	2169146.57	17.00
POINTSOURCE		AC25T125	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058435.69	2169058.10	17.00
POINTSOURCE		AC25T126	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058433.26	2169125.81	17.00
POINTSOURCE		AC25T127	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058529.44	2169025.11	17.00
POINTSOURCE		AC25T128	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058434.30	2169079.28	17.00
POINTSOURCE		AC25T129	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058436.73	2168999.42	17.00
POINTSOURCE		AC25T130	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058531.52	2168958.79	17.00
POINTSOURCE		AC25T131	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058532.22	2168934.14	17.00
POINTSOURCE		AC25T132	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058437.77	2168978.93	17.00
POINTSOURCE		AC25T133	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058524.93	2169172.33	17.00
POINTSOURCE		AC25T134	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058533.61	2168913.31	17.00
POINTSOURCE		AC25T135	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058528.40	2169060.18	17.00
POINTSOURCE		AC25T136	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058439.86	2168910.53	17.00
POINTSOURCE		AC25T137	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058527.01	2169106.01	17.00
POINTSOURCE		AC25T138	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058530.48	2169001.85	17.00
POINTSOURCE		AC25T139	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058525.27	2169149.76	17.00
POINTSOURCE		AC25T140	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058437.77	2168957.06	17.00
POINTSOURCE		AC25T141	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058530.83	2168980.67	17.00
POINTSOURCE		AC25T142	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058526.32	2169128.58	17.00
POINTSOURCE		AC25T143	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058439.86	2168933.10	17.00
POINTSOURCE		AC25T144	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058431.35	2169170.01	17.00
POINTSOURCE		AC25T145	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058809.56	2168658.17	17.00
POINTSOURCE		AC25T146	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058899.29	2168761.51	17.00
POINTSOURCE		AC25T147	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058807.59	2168737.34	17.00
POINTSOURCE		AC25T148	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058811.57	2168612.33	17.00
POINTSOURCE		AC25T149	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058803.42	2168849.25	17.00
POINTSOURCE		AC25T150	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058902.30	2168680.95	17.00
POINTSOURCE		AC25T151	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058811.54	2168589.76	17.00
POINTSOURCE		AC25T152	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058806.23	2168758.52	17.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC25T153	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058903.28	2168637.89	17.00
POINTSOURCE		AC25T154	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058897.31	2168828.87	17.00
POINTSOURCE		AC25T155	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058803.90	2168825.81	17.00
POINTSOURCE		AC25T156	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058897.00	2168851.44	17.00
POINTSOURCE		AC25T157	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058901.29	2168704.21	17.00
POINTSOURCE		AC25T158	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058809.52	2168636.29	17.00
POINTSOURCE		AC25T159	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058805.26	2168805.05	17.00
POINTSOURCE		AC25T160	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058903.93	2168613.23	17.00
POINTSOURCE		AC25T161	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058898.98	2168785.12	17.00
POINTSOURCE		AC25T162	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058806.27	2168780.74	17.00
POINTSOURCE		AC25T163	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058808.54	2168678.65	17.00
POINTSOURCE		AC25T164	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058898.32	2168807.69	17.00
POINTSOURCE		AC25T165	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058905.29	2168592.40	17.00
POINTSOURCE		AC25T166	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058900.30	2168739.28	17.00
POINTSOURCE		AC25T167	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058902.61	2168659.76	17.00
POINTSOURCE		AC25T168	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058807.54	2168700.88	17.00
POINTSOURCE		AC25T169	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058625.27	2168692.99	17.00
POINTSOURCE		AC25T170	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058717.98	2168731.54	17.00
POINTSOURCE		AC25T171	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058625.27	2168729.45	17.00
POINTSOURCE		AC25T172	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058621.45	2168817.92	17.00
POINTSOURCE		AC25T173	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058714.86	2168821.12	17.00
POINTSOURCE		AC25T174	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058721.80	2168605.49	17.00
POINTSOURCE		AC25T175	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058626.32	2168670.77	17.00
POINTSOURCE		AC25T176	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058716.94	2168753.76	17.00
POINTSOURCE		AC25T177	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058714.51	2168843.69	17.00
POINTSOURCE		AC25T178	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058723.19	2168584.66	17.00
POINTSOURCE		AC25T179	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058627.36	2168628.41	17.00
POINTSOURCE		AC25T180	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058623.88	2168772.86	17.00
POINTSOURCE		AC25T181	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058623.88	2168750.63	17.00
POINTSOURCE		AC25T182	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058620.93	2168841.36	17.00
POINTSOURCE		AC25T183	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058627.36	2168650.29	17.00
POINTSOURCE		AC25T184	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058629.44	2168604.45	17.00
POINTSOURCE		AC25T185	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058629.44	2168581.88	17.00
POINTSOURCE		AC25T186	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058719.02	2168696.47	17.00
POINTSOURCE		AC25T187	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058721.11	2168630.15	17.00
POINTSOURCE		AC25T188	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058720.41	2168652.02	17.00
POINTSOURCE		AC25T189	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058715.90	2168799.94	17.00
POINTSOURCE		AC25T190	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058716.59	2168777.37	17.00
POINTSOURCE		AC25T191	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058622.84	2168797.16	17.00
POINTSOURCE		AC25T192	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058720.07	2168673.20	17.00
POINTSOURCE		AC25T193	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058447.15	2168688.83	17.00
POINTSOURCE		AC25T194	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058542.98	2168625.98	17.00
POINTSOURCE		AC25T195	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058539.86	2168727.37	17.00
POINTSOURCE		AC25T196	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058538.82	2168749.59	17.00
POINTSOURCE		AC25T197	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058536.38	2168839.52	17.00
POINTSOURCE		AC25T198	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058449.23	2168624.24	17.00
POINTSOURCE		AC25T199	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058447.15	2168725.29	17.00
POINTSOURCE		AC25T200	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058545.07	2168580.49	17.00
POINTSOURCE		AC25T201	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058451.32	2168577.72	17.00
POINTSOURCE		AC25T202	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058537.77	2168795.77	17.00
POINTSOURCE		AC25T203	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058451.32	2168600.29	17.00
POINTSOURCE		AC25T204	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058445.76	2168746.47	17.00
POINTSOURCE		AC25T205	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058538.47	2168773.20	17.00
POINTSOURCE		AC25T206	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058541.94	2168669.04	17.00
POINTSOURCE		AC25T207	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058445.76	2168768.69	17.00
POINTSOURCE		AC25T208	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058543.68	2168601.33	17.00
POINTSOURCE		AC25T209	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058442.81	2168837.20	17.00
POINTSOURCE		AC25T210	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058444.72	2168792.99	17.00
POINTSOURCE		AC25T211	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058448.19	2168666.61	17.00
POINTSOURCE		AC25T212	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058540.90	2168692.30	17.00
POINTSOURCE		AC25T213	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058542.29	2168647.86	17.00
POINTSOURCE		AC25T214	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058536.73	2168816.95	17.00
POINTSOURCE		AC25T215	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058449.23	2168646.12	17.00
POINTSOURCE		AC25T216	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7058443.33	2168813.76	17.00
POINTSOURCE		AC25T217	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059208.78	2168862.96	17.00
POINTSOURCE		AC25T218	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059119.54	2168712.26	17.00
POINTSOURCE		AC25T219	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059210.17	2168819.21	17.00
POINTSOURCE		AC25T220	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059214.68	2168671.29	17.00
POINTSOURCE		AC25T221	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059216.07	2168624.76	17.00
POINTSOURCE		AC25T222	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059115.20	2168860.63	17.00
POINTSOURCE		AC25T223	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059119.54	2168748.72	17.00
POINTSOURCE		AC25T224	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059214.34	2168692.47	17.00
POINTSOURCE		AC25T225	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059210.86	2168796.64	17.00
POINTSOURCE		AC25T226	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059213.29	2168715.74	17.00
POINTSOURCE		AC25T227	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059118.16	2168769.90	17.00
POINTSOURCE		AC25T228	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059117.11	2168816.43	17.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC25T229	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059121.63	2168647.68	17.00
POINTSOURCE		AC25T230	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059123.71	2168623.72	17.00
POINTSOURCE		AC25T231	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059121.63	2168669.56	17.00
POINTSOURCE		AC25T232	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059120.59	2168690.04	17.00
POINTSOURCE		AC25T233	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059217.46	2168603.93	17.00
POINTSOURCE		AC25T234	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059123.71	2168601.15	17.00
POINTSOURCE		AC25T235	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059115.72	2168837.20	17.00
POINTSOURCE		AC25T236	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059211.21	2168773.03	17.00
POINTSOURCE		AC25T237	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059209.13	2168840.39	17.00
POINTSOURCE		AC25T238	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059215.38	2168649.42	17.00
POINTSOURCE		AC25T239	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059118.16	2168792.13	17.00
POINTSOURCE		AC25T240	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059212.25	2168750.81	17.00
POINTSOURCE		AC25T241	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059302.88	2168718.51	17.00
POINTSOURCE		AC25T242	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059301.49	2168798.38	17.00
POINTSOURCE		AC25T243	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059395.59	2168757.06	17.00
POINTSOURCE		AC25T244	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059307.04	2168629.97	17.00
POINTSOURCE		AC25T245	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059304.96	2168653.93	17.00
POINTSOURCE		AC25T246	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059398.02	2168677.54	17.00
POINTSOURCE		AC25T247	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059398.71	2168655.67	17.00
POINTSOURCE		AC25T248	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059392.11	2168869.21	17.00
POINTSOURCE		AC25T249	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059392.46	2168846.64	17.00
POINTSOURCE		AC25T250	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059307.04	2168607.40	17.00
POINTSOURCE		AC25T251	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059400.79	2168610.18	17.00
POINTSOURCE		AC25T252	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059397.67	2168698.72	17.00
POINTSOURCE		AC25T253	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059394.20	2168802.89	17.00
POINTSOURCE		AC25T254	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059393.50	2168825.46	17.00
POINTSOURCE		AC25T255	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059302.88	2168754.97	17.00
POINTSOURCE		AC25T256	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059399.41	2168631.01	17.00
POINTSOURCE		AC25T257	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059300.45	2168822.68	17.00
POINTSOURCE		AC25T258	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059394.54	2168779.28	17.00
POINTSOURCE		AC25T259	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059298.54	2168866.88	17.00
POINTSOURCE		AC25T260	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059299.06	2168843.45	17.00
POINTSOURCE		AC25T261	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059396.63	2168721.99	17.00
POINTSOURCE		AC25T262	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059303.92	2168696.29	17.00
POINTSOURCE		AC25T263	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059301.49	2168776.15	17.00
POINTSOURCE		AC25T264	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059304.96	2168675.81	17.00
POINTSOURCE		AC25T265	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059476.49	2168827.89	17.00
POINTSOURCE		AC25T266	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059478.92	2168723.72	17.00
POINTSOURCE		AC25T267	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059479.96	2168701.50	17.00
POINTSOURCE		AC25T268	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059568.16	2168874.42	17.00
POINTSOURCE		AC25T269	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059574.75	2168660.88	17.00
POINTSOURCE		AC25T270	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059474.58	2168872.09	17.00
POINTSOURCE		AC25T271	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059475.10	2168848.65	17.00
POINTSOURCE		AC25T272	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059575.45	2168636.22	17.00
POINTSOURCE		AC25T273	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059576.84	2168615.39	17.00
POINTSOURCE		AC25T274	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059477.53	2168781.36	17.00
POINTSOURCE		AC25T275	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059570.24	2168808.10	17.00
POINTSOURCE		AC25T276	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059478.92	2168760.18	17.00
POINTSOURCE		AC25T277	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059568.50	2168851.85	17.00
POINTSOURCE		AC25T278	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059481.00	2168659.14	17.00
POINTSOURCE		AC25T279	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059483.09	2168612.61	17.00
POINTSOURCE		AC25T280	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059569.54	2168830.67	17.00
POINTSOURCE		AC25T281	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059570.59	2168784.49	17.00
POINTSOURCE		AC25T282	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059481.00	2168681.01	17.00
POINTSOURCE		AC25T283	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059574.06	2168682.75	17.00
POINTSOURCE		AC25T284	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059571.63	2168762.26	17.00
POINTSOURCE		AC25T285	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059483.09	2168635.18	17.00
POINTSOURCE		AC25T286	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059477.53	2168803.58	17.00
POINTSOURCE		AC25T287	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059573.71	2168703.93	17.00
POINTSOURCE		AC25T288	94.0	94.0	94.0	Lw	94		720.00	120.00	540.00	0.0	3.00	g	7059572.67	2168727.20	17.00
POINTSOURCE		AC7.5-8T001	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059101.32	2169247.68	31.00
POINTSOURCE		AC7.5-8T002	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059194.02	2169270.59	31.00
POINTSOURCE		AC7.5-8T003	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059283.61	2169253.75	17.00
POINTSOURCE		AC7.5-8T004	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059376.32	2169276.67	17.00
POINTSOURCE		AC7.5-8T005	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059463.29	2169261.57	17.00
POINTSOURCE		AC7.5-8T006	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059556.00	2169284.48	17.00
POINTSOURCE		AC7.5-8T007	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059485.99	2168550.19	17.00
POINTSOURCE		AC7.5-8T008	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059578.70	2168573.11	17.00
POINTSOURCE		AC7.5-8T009	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059310.99	2168540.47	17.00
POINTSOURCE		AC7.5-8T010	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059403.70	2168563.39	17.00
POINTSOURCE		AC7.5-8T011	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059126.27	2168534.22	17.00
POINTSOURCE		AC7.5-8T012	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059218.98	2168557.14	17.00
POINTSOURCE		AC7.5-8T013	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058907.87	2168552.28	17.00
POINTSOURCE		AC7.5-8T014	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058815.16	2168529.36	17.00
POINTSOURCE		AC7.5-8T015	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058723.15	2168546.03	17.00
POINTSOURCE		AC7.5-8T016	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058630.44	2168523.11	17.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC7.5-8T017	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058454.05	2168516.86	17.00
POINTSOURCE		AC7.5-8T018	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058546.76	2168539.78	17.00
POINTSOURCE		AC7.5-8T019	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058522.28	2169243.42	17.00
POINTSOURCE		AC7.5-8T020	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058429.57	2169220.51	17.00
POINTSOURCE		AC7.5-8T021	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058609.78	2169216.86	17.00
POINTSOURCE		AC7.5-8T022	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058702.49	2169239.78	17.00
POINTSOURCE		AC7.5-8T023	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058788.95	2169231.44	17.00
POINTSOURCE		AC7.5-8T024	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058881.65	2169254.36	17.00
POINTSOURCE		AC1-3T001	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059180.44	2169298.07	31.00
POINTSOURCE		AC1-3T002	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059187.73	2169298.33	31.00
POINTSOURCE		AC1-3T003	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059194.76	2169298.33	31.00
POINTSOURCE		AC1-3T004	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059195.02	2169289.99	31.00
POINTSOURCE		AC1-3T005	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059187.73	2169290.26	31.00
POINTSOURCE		AC1-3T006	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059199.45	2169065.78	31.00
POINTSOURCE		AC1-3T007	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059192.68	2169065.26	31.00
POINTSOURCE		AC1-3T008	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059186.43	2169065.26	31.00
POINTSOURCE		AC1-3T009	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059180.18	2169065.52	31.00
POINTSOURCE		AC1-3T010	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059365.34	2169304.40	17.00
POINTSOURCE		AC1-3T011	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059372.63	2169296.59	17.00
POINTSOURCE		AC1-3T012	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059384.35	2169072.11	17.00
POINTSOURCE		AC1-3T013	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059379.92	2169296.33	17.00
POINTSOURCE		AC1-3T014	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059377.58	2169071.59	17.00
POINTSOURCE		AC1-3T015	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059379.66	2169304.66	17.00
POINTSOURCE		AC1-3T016	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059371.33	2169071.59	17.00
POINTSOURCE		AC1-3T017	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059365.08	2169071.85	17.00
POINTSOURCE		AC1-3T018	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059372.63	2169304.66	17.00
POINTSOURCE		AC1-3T019	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059549.45	2169311.96	17.00
POINTSOURCE		AC1-3T020	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059549.45	2169303.88	17.00
POINTSOURCE		AC1-3T021	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059542.16	2169311.70	17.00
POINTSOURCE		AC1-3T022	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059548.15	2169078.88	17.00
POINTSOURCE		AC1-3T023	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059541.90	2169079.14	17.00
POINTSOURCE		AC1-3T024	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059554.40	2169078.88	17.00
POINTSOURCE		AC1-3T025	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059556.48	2169311.96	17.00
POINTSOURCE		AC1-3T026	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059556.74	2169303.62	17.00
POINTSOURCE		AC1-3T027	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059561.17	2169079.40	17.00
POINTSOURCE		AC1-3T028	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059490.73	2168745.34	17.00
POINTSOURCE		AC1-3T029	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059495.37	2168520.38	17.00
POINTSOURCE		AC1-3T030	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059477.73	2168744.47	17.00
POINTSOURCE		AC1-3T031	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059495.59	2168512.31	17.00
POINTSOURCE		AC1-3T032	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059502.87	2168512.77	17.00
POINTSOURCE		AC1-3T033	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059484.48	2168745.17	17.00
POINTSOURCE		AC1-3T034	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059488.56	2168512.13	17.00
POINTSOURCE		AC1-3T035	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059488.08	2168520.45	17.00
POINTSOURCE		AC1-3T036	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059496.98	2168745.24	17.00
POINTSOURCE		AC1-3T037	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059322.50	2168741.77	17.00
POINTSOURCE		AC1-3T038	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059328.39	2168509.29	17.00
POINTSOURCE		AC1-3T039	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059314.08	2168508.65	17.00
POINTSOURCE		AC1-3T040	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059303.25	2168741.00	17.00
POINTSOURCE		AC1-3T041	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059313.60	2168516.98	17.00
POINTSOURCE		AC1-3T042	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059310.00	2168741.70	17.00
POINTSOURCE		AC1-3T043	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059316.25	2168741.87	17.00
POINTSOURCE		AC1-3T044	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059320.89	2168516.91	17.00
POINTSOURCE		AC1-3T045	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059321.11	2168508.84	17.00
POINTSOURCE		AC1-3T046	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059133.96	2168730.66	17.00
POINTSOURCE		AC1-3T047	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059125.06	2168505.87	17.00
POINTSOURCE		AC1-3T048	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059127.71	2168730.76	17.00
POINTSOURCE		AC1-3T049	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059139.85	2168498.18	17.00
POINTSOURCE		AC1-3T050	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059132.57	2168497.73	17.00
POINTSOURCE		AC1-3T051	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059125.54	2168497.54	17.00
POINTSOURCE		AC1-3T052	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059114.70	2168729.89	17.00
POINTSOURCE		AC1-3T053	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059132.35	2168505.80	17.00
POINTSOURCE		AC1-3T054	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7059121.46	2168730.59	17.00
POINTSOURCE		AC1-3T055	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058803.07	2168718.61	17.00
POINTSOURCE		AC1-3T056	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058816.08	2168719.47	17.00
POINTSOURCE		AC1-3T057	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058813.90	2168486.26	17.00
POINTSOURCE		AC1-3T058	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058820.93	2168486.44	17.00
POINTSOURCE		AC1-3T059	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058828.22	2168486.90	17.00
POINTSOURCE		AC1-3T060	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058820.72	2168494.51	17.00
POINTSOURCE		AC1-3T061	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058809.83	2168719.31	17.00
POINTSOURCE		AC1-3T062	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058822.33	2168719.38	17.00
POINTSOURCE		AC1-3T063	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058813.42	2168494.58	17.00
POINTSOURCE		AC1-3T064	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058621.13	2168713.05	17.00
POINTSOURCE		AC1-3T065	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058638.78	2168488.96	17.00
POINTSOURCE		AC1-3T066	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058638.99	2168480.89	17.00
POINTSOURCE		AC1-3T067	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058631.96	2168480.70	17.00
POINTSOURCE		AC1-3T068	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058634.13	2168713.92	17.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		AC1-3T069	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058631.48	2168489.03	17.00
POINTSOURCE		AC1-3T070	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058627.88	2168713.75	17.00
POINTSOURCE		AC1-3T071	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058640.39	2168713.82	17.00
POINTSOURCE		AC1-3T072	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058646.27	2168481.34	17.00
POINTSOURCE		AC1-3T073	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058461.74	2168707.05	17.00
POINTSOURCE		AC1-3T074	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058449.24	2168706.98	17.00
POINTSOURCE		AC1-3T075	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058467.63	2168474.57	17.00
POINTSOURCE		AC1-3T076	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058442.48	2168706.28	17.00
POINTSOURCE		AC1-3T077	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058460.13	2168482.19	17.00
POINTSOURCE		AC1-3T078	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058460.34	2168474.12	17.00
POINTSOURCE		AC1-3T079	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058455.49	2168707.14	17.00
POINTSOURCE		AC1-3T080	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058452.83	2168482.26	17.00
POINTSOURCE		AC1-3T081	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058453.31	2168473.93	17.00
POINTSOURCE		AC1-3T082	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058889.03	2169054.84	17.00
POINTSOURCE		AC1-3T083	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058882.26	2169054.32	17.00
POINTSOURCE		AC1-3T084	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058884.35	2169287.39	17.00
POINTSOURCE		AC1-3T085	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058869.76	2169054.58	17.00
POINTSOURCE		AC1-3T086	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058876.01	2169054.32	17.00
POINTSOURCE		AC1-3T087	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058877.32	2169279.32	17.00
POINTSOURCE		AC1-3T088	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058877.32	2169287.39	17.00
POINTSOURCE		AC1-3T089	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058884.61	2169279.06	17.00
POINTSOURCE		AC1-3T090	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058870.02	2169287.13	17.00
POINTSOURCE		AC1-3T091	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058693.20	2169049.89	17.00
POINTSOURCE		AC1-3T092	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058707.78	2169282.70	17.00
POINTSOURCE		AC1-3T093	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058693.46	2169282.44	17.00
POINTSOURCE		AC1-3T094	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058700.75	2169282.70	17.00
POINTSOURCE		AC1-3T095	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058699.45	2169049.63	17.00
POINTSOURCE		AC1-3T096	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058705.70	2169049.63	17.00
POINTSOURCE		AC1-3T097	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058700.75	2169274.63	17.00
POINTSOURCE		AC1-3T098	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058708.05	2169274.37	17.00
POINTSOURCE		AC1-3T099	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058712.47	2169050.15	17.00
POINTSOURCE		AC1-3T100	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058519.76	2169041.30	17.00
POINTSOURCE		AC1-3T101	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058526.53	2169041.82	17.00
POINTSOURCE		AC1-3T102	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058513.51	2169041.30	17.00
POINTSOURCE		AC1-3T103	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058507.26	2169041.56	17.00
POINTSOURCE		AC1-3T104	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058514.82	2169266.30	17.00
POINTSOURCE		AC1-3T105	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058521.85	2169274.37	17.00
POINTSOURCE		AC1-3T106	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058522.11	2169266.04	17.00
POINTSOURCE		AC1-3T107	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058507.52	2169274.11	17.00
POINTSOURCE		AC1-3T108	74.0	74.0	74.0	Lw	74		720.00	120.00	540.00	0.0	3.00	g	7058514.82	2169274.37	17.00
POINTSOURCE		AC10T001	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059102.64	2169225.27	31.00
POINTSOURCE		AC10T002	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059101.33	2169270.84	31.00
POINTSOURCE		AC10T003	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059282.93	2169229.52	17.00
POINTSOURCE		AC10T004	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059463.49	2169235.08	17.00
POINTSOURCE		AC10T005	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059578.37	2168589.50	17.00
POINTSOURCE		AC10T006	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059402.85	2168577.52	17.00
POINTSOURCE		AC10T007	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7059217.96	2168570.75	17.00
POINTSOURCE		AC10T008	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058907.02	2168565.63	17.00
POINTSOURCE		AC10T009	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058722.12	2168559.99	17.00
POINTSOURCE		AC10T010	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058545.04	2168550.01	17.00
POINTSOURCE		AC10T011	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058429.61	2169205.13	17.00
POINTSOURCE		AC10T012	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058609.29	2169201.48	17.00
POINTSOURCE		AC10T013	88.0	88.0	88.0	Lw	88		720.00	120.00	540.00	0.0	3.00	g	7058789.50	2169216.07	17.00
POINTSOURCE		Vent001	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059173.42	2168938.93	29.00
POINTSOURCE		Vent002	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059134.88	2168937.37	29.00
POINTSOURCE		Vent003	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059132.27	2168991.53	29.00
POINTSOURCE		Vent004	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059137.48	2168995.18	29.00
POINTSOURCE		Vent005	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059166.13	2168996.74	29.00
POINTSOURCE		Vent006	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059171.34	2168992.58	29.00
POINTSOURCE		Vent007	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059135.40	2169059.76	29.00
POINTSOURCE		Vent008	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059134.36	2169074.35	29.00
POINTSOURCE		Vent009	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059165.09	2169060.80	29.00
POINTSOURCE		Vent010	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059165.61	2169075.91	29.00
POINTSOURCE		Vent011	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059167.69	2169139.45	29.00
POINTSOURCE		Vent012	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059162.48	2169141.01	29.00
POINTSOURCE		Vent013	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059127.59	2169139.45	29.00
POINTSOURCE		Vent014	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059132.79	2169143.10	29.00
POINTSOURCE		Vent015	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059160.92	2169207.16	29.00
POINTSOURCE		Vent016	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059129.67	2169206.64	29.00
POINTSOURCE		Vent017	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059116.65	2169209.76	29.00
POINTSOURCE		Vent018	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059117.17	2169263.93	29.00
POINTSOURCE		Vent019	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059174.98	2169281.64	29.00
POINTSOURCE		Vent020	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059316.65	2169212.37	15.00
POINTSOURCE		Vent021	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059354.67	2169145.18	15.00
POINTSOURCE		Vent022	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059324.46	2169000.91	15.00
POINTSOURCE		Vent023	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059321.34	2169080.08	15.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Vent024	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059314.56	2169145.18	15.00
POINTSOURCE		Vent025	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059321.86	2168943.10	15.00
POINTSOURCE		Vent026	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059304.15	2169269.66	15.00
POINTSOURCE		Vent027	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059360.40	2168944.66	15.00
POINTSOURCE		Vent028	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059352.59	2169081.64	15.00
POINTSOURCE		Vent029	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059319.77	2169148.83	15.00
POINTSOURCE		Vent030	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059353.11	2169002.47	15.00
POINTSOURCE		Vent031	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059349.46	2169146.74	15.00
POINTSOURCE		Vent032	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059352.06	2169066.53	15.00
POINTSOURCE		Vent033	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059358.31	2168998.30	15.00
POINTSOURCE		Vent034	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059303.63	2169215.49	15.00
POINTSOURCE		Vent035	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059319.25	2168997.26	15.00
POINTSOURCE		Vent036	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059322.38	2169065.49	15.00
POINTSOURCE		Vent037	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059361.96	2169287.37	15.00
POINTSOURCE		Vent038	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059347.90	2169212.89	15.00
POINTSOURCE		Vent039	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059501.02	2169011.85	15.00
POINTSOURCE		Vent040	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059498.94	2169076.43	15.00
POINTSOURCE		Vent041	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059496.34	2169159.76	15.00
POINTSOURCE		Vent042	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059529.15	2169092.58	15.00
POINTSOURCE		Vent043	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059493.21	2169223.30	15.00
POINTSOURCE		Vent044	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059497.90	2169091.01	15.00
POINTSOURCE		Vent045	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059536.96	2168955.60	15.00
POINTSOURCE		Vent046	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059524.46	2169223.83	15.00
POINTSOURCE		Vent047	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059531.23	2169156.12	15.00
POINTSOURCE		Vent048	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059491.13	2169156.12	15.00
POINTSOURCE		Vent049	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059528.63	2169077.47	15.00
POINTSOURCE		Vent050	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059480.19	2169226.43	15.00
POINTSOURCE		Vent051	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059495.81	2169008.20	15.00
POINTSOURCE		Vent052	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059534.88	2169009.24	15.00
POINTSOURCE		Vent053	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059529.67	2169013.41	15.00
POINTSOURCE		Vent054	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059538.52	2169298.30	15.00
POINTSOURCE		Vent055	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059498.42	2168954.03	15.00
POINTSOURCE		Vent056	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059480.71	2169280.60	15.00
POINTSOURCE		Vent057	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059526.02	2169157.68	15.00
POINTSOURCE		Vent058	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058827.06	2168925.39	15.00
POINTSOURCE		Vent059	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058863.52	2168980.60	15.00
POINTSOURCE		Vent060	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058867.17	2169269.66	15.00
POINTSOURCE		Vent061	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058829.67	2168983.20	15.00
POINTSOURCE		Vent062	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058853.11	2169195.18	15.00
POINTSOURCE		Vent063	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058857.27	2169048.83	15.00
POINTSOURCE		Vent064	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058824.98	2169131.12	15.00
POINTSOURCE		Vent065	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058824.46	2168979.55	15.00
POINTSOURCE		Vent066	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058854.67	2169129.03	15.00
POINTSOURCE		Vent067	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058808.84	2169197.78	15.00
POINTSOURCE		Vent068	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058809.36	2169251.95	15.00
POINTSOURCE		Vent069	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058857.79	2169063.93	15.00
POINTSOURCE		Vent070	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058859.88	2169127.47	15.00
POINTSOURCE		Vent071	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058827.59	2169047.78	15.00
POINTSOURCE		Vent072	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058821.86	2169194.66	15.00
POINTSOURCE		Vent073	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058826.54	2169062.37	15.00
POINTSOURCE		Vent074	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058865.61	2168926.95	15.00
POINTSOURCE		Vent075	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058819.77	2169127.47	15.00
POINTSOURCE		Vent076	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058858.31	2168984.76	15.00
POINTSOURCE		Vent077	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058680.71	2169042.05	15.00
POINTSOURCE		Vent078	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058649.98	2169055.60	15.00
POINTSOURCE		Vent079	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058690.61	2169262.89	15.00
POINTSOURCE		Vent080	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058681.23	2169057.16	15.00
POINTSOURCE		Vent081	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058650.50	2168918.62	15.00
POINTSOURCE		Vent082	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058647.90	2168972.78	15.00
POINTSOURCE		Vent083	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058632.27	2169191.01	15.00
POINTSOURCE		Vent084	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058645.29	2169187.89	15.00
POINTSOURCE		Vent085	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058643.21	2169120.70	15.00
POINTSOURCE		Vent086	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058678.11	2169122.26	15.00
POINTSOURCE		Vent087	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058653.11	2168976.43	15.00
POINTSOURCE		Vent088	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058651.02	2169041.01	15.00
POINTSOURCE		Vent089	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058648.42	2169124.35	15.00
POINTSOURCE		Vent090	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058683.31	2169120.70	15.00
POINTSOURCE		Vent091	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058632.79	2169245.18	15.00
POINTSOURCE		Vent092	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058676.54	2169188.41	15.00
POINTSOURCE		Vent093	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058689.04	2168920.18	15.00
POINTSOURCE		Vent094	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058681.75	2168977.99	15.00
POINTSOURCE		Vent095	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058686.96	2168973.83	15.00
POINTSOURCE		Vent096	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058467.17	2169034.76	15.00
POINTSOURCE		Vent097	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058503.11	2168967.58	15.00
POINTSOURCE		Vent098	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058496.86	2169035.80	15.00
POINTSOURCE		Vent099	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058464.04	2168966.53	15.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Vent100	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058448.42	2169184.76	15.00
POINTSOURCE		Vent101	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058497.90	2168971.74	15.00
POINTSOURCE		Vent102	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058506.75	2169256.64	15.00
POINTSOURCE		Vent103	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058499.46	2169114.45	15.00
POINTSOURCE		Vent104	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058464.56	2169118.10	15.00
POINTSOURCE		Vent105	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058492.69	2169182.16	15.00
POINTSOURCE		Vent106	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058448.94	2169238.93	15.00
POINTSOURCE		Vent107	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058505.19	2168913.93	15.00
POINTSOURCE		Vent108	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058466.65	2168912.37	15.00
POINTSOURCE		Vent109	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058461.44	2169181.64	15.00
POINTSOURCE		Vent110	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058497.38	2169050.91	15.00
POINTSOURCE		Vent111	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058459.36	2169114.45	15.00
POINTSOURCE		Vent112	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058466.13	2169049.35	15.00
POINTSOURCE		Vent113	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058469.25	2168970.18	15.00
POINTSOURCE		Vent114	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058494.25	2169116.01	15.00
POINTSOURCE		Vent115	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058511.58	2168630.97	15.00
POINTSOURCE		Vent116	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058476.73	2168635.01	15.00
POINTSOURCE		Vent117	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058510.80	2168699.73	15.00
POINTSOURCE		Vent118	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058467.83	2168492.92	15.00
POINTSOURCE		Vent119	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058479.91	2168777.69	15.00
POINTSOURCE		Vent120	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058526.97	2168564.13	15.00
POINTSOURCE		Vent121	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058513.98	2168567.40	15.00
POINTSOURCE		Vent122	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058511.83	2168836.71	15.00
POINTSOURCE		Vent123	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058474.74	2168781.92	15.00
POINTSOURCE		Vent124	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058525.84	2168509.97	15.00
POINTSOURCE		Vent125	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058481.92	2168633.39	15.00
POINTSOURCE		Vent126	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058508.57	2168778.93	15.00
POINTSOURCE		Vent127	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058513.82	2168782.52	15.00
POINTSOURCE		Vent128	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058516.83	2168634.56	15.00
POINTSOURCE		Vent129	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058480.22	2168713.62	15.00
POINTSOURCE		Vent130	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058482.73	2168567.23	15.00
POINTSOURCE		Vent131	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058473.27	2168835.58	15.00
POINTSOURCE		Vent132	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058479.53	2168698.53	15.00
POINTSOURCE		Vent133	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058509.92	2168714.33	15.00
POINTSOURCE		Vent134	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058693.50	2168790.85	15.00
POINTSOURCE		Vent135	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058659.22	2168706.86	15.00
POINTSOURCE		Vent136	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058654.43	2168790.25	15.00
POINTSOURCE		Vent137	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058690.48	2168708.07	15.00
POINTSOURCE		Vent138	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058688.25	2168787.27	15.00
POINTSOURCE		Vent139	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058705.52	2168518.30	15.00
POINTSOURCE		Vent140	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058696.52	2168642.89	15.00
POINTSOURCE		Vent141	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058656.41	2168643.35	15.00
POINTSOURCE		Vent142	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058693.67	2168575.73	15.00
POINTSOURCE		Vent143	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058659.91	2168721.96	15.00
POINTSOURCE		Vent144	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058662.42	2168575.56	15.00
POINTSOURCE		Vent145	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058691.51	2168845.04	15.00
POINTSOURCE		Vent146	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058661.61	2168641.72	15.00
POINTSOURCE		Vent147	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058652.96	2168843.92	15.00
POINTSOURCE		Vent148	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058689.61	2168722.66	15.00
POINTSOURCE		Vent149	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058706.66	2168572.46	15.00
POINTSOURCE		Vent150	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058691.27	2168639.30	15.00
POINTSOURCE		Vent151	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058647.51	2168501.25	15.00
POINTSOURCE		Vent152	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058659.59	2168786.03	15.00
POINTSOURCE		Vent153	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058839.95	2168712.59	15.00
POINTSOURCE		Vent154	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058874.40	2168581.46	15.00
POINTSOURCE		Vent155	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058835.16	2168795.98	15.00
POINTSOURCE		Vent156	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058837.14	2168649.07	15.00
POINTSOURCE		Vent157	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058887.39	2168578.19	15.00
POINTSOURCE		Vent158	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058886.25	2168524.03	15.00
POINTSOURCE		Vent159	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058872.24	2168850.77	15.00
POINTSOURCE		Vent160	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058842.33	2168647.45	15.00
POINTSOURCE		Vent161	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058870.34	2168728.39	15.00
POINTSOURCE		Vent162	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058840.32	2168791.76	15.00
POINTSOURCE		Vent163	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058874.23	2168796.58	15.00
POINTSOURCE		Vent164	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058843.15	2168581.29	15.00
POINTSOURCE		Vent165	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058828.24	2168506.98	15.00
POINTSOURCE		Vent166	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058840.64	2168727.69	15.00
POINTSOURCE		Vent167	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058833.69	2168849.65	15.00
POINTSOURCE		Vent168	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058871.21	2168713.80	15.00
POINTSOURCE		Vent169	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058868.98	2168792.99	15.00
POINTSOURCE		Vent170	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058877.25	2168648.62	15.00
POINTSOURCE		Vent171	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7058872.00	2168645.03	15.00
POINTSOURCE		Vent172	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059155.13	2168591.19	15.00
POINTSOURCE		Vent173	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059152.30	2168801.65	15.00
POINTSOURCE		Vent174	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059154.31	2168657.35	15.00
POINTSOURCE		Vent175	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059198.23	2168533.93	15.00

Name	M.	ID	Result. PWL			Lw / Li			Operating Time			K0	Height		Coordinates		
			Day	Evening	Night	Type	Value	norm.	Day	Special	Night				X	Y	Z
			(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	(dB)	(ft)		(ft)	(ft)	(ft)
POINTSOURCE		Vent176	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059182.31	2168738.29	15.00
POINTSOURCE		Vent177	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059183.19	2168723.69	15.00
POINTSOURCE		Vent178	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059147.14	2168805.88	15.00
POINTSOURCE		Vent179	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059151.93	2168722.48	15.00
POINTSOURCE		Vent180	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059145.66	2168859.54	15.00
POINTSOURCE		Vent181	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059183.98	2168654.93	15.00
POINTSOURCE		Vent182	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059186.21	2168806.48	15.00
POINTSOURCE		Vent183	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059186.38	2168591.36	15.00
POINTSOURCE		Vent184	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059189.22	2168658.52	15.00
POINTSOURCE		Vent185	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059140.22	2168516.87	15.00
POINTSOURCE		Vent186	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059180.96	2168802.89	15.00
POINTSOURCE		Vent187	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059184.22	2168860.67	15.00
POINTSOURCE		Vent188	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059199.37	2168588.08	15.00
POINTSOURCE		Vent189	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059152.62	2168737.58	15.00
POINTSOURCE		Vent190	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059149.12	2168658.97	15.00
POINTSOURCE		Vent191	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059368.46	2168811.22	15.00
POINTSOURCE		Vent192	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059386.87	2168596.42	15.00
POINTSOURCE		Vent193	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059385.73	2168542.26	15.00
POINTSOURCE		Vent194	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059371.72	2168869.00	15.00
POINTSOURCE		Vent195	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059334.64	2168814.21	15.00
POINTSOURCE		Vent196	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059340.12	2168745.92	15.00
POINTSOURCE		Vent197	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059369.81	2168746.62	15.00
POINTSOURCE		Vent198	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059327.72	2168525.21	15.00
POINTSOURCE		Vent199	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059371.48	2168663.26	15.00
POINTSOURCE		Vent200	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059342.63	2168599.52	15.00
POINTSOURCE		Vent201	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059336.62	2168667.30	15.00
POINTSOURCE		Vent202	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059339.80	2168809.99	15.00
POINTSOURCE		Vent203	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059333.16	2168867.88	15.00
POINTSOURCE		Vent204	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059373.71	2168814.81	15.00
POINTSOURCE		Vent205	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059339.43	2168730.82	15.00
POINTSOURCE		Vent206	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059376.72	2168666.85	15.00
POINTSOURCE		Vent207	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059373.88	2168599.69	15.00
POINTSOURCE		Vent208	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059341.81	2168665.68	15.00
POINTSOURCE		Vent209	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059370.69	2168732.03	15.00
POINTSOURCE		Vent210	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059550.16	2168671.54	15.00
POINTSOURCE		Vent211	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059513.55	2168750.60	15.00
POINTSOURCE		Vent212	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059547.15	2168819.50	15.00
POINTSOURCE		Vent213	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059506.60	2168872.56	15.00
POINTSOURCE		Vent214	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059544.13	2168736.71	15.00
POINTSOURCE		Vent215	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059543.25	2168751.31	15.00
POINTSOURCE		Vent216	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059516.06	2168604.21	15.00
POINTSOURCE		Vent217	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059512.86	2168735.51	15.00
POINTSOURCE		Vent218	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059515.25	2168670.37	15.00
POINTSOURCE		Vent219	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059510.06	2168671.99	15.00
POINTSOURCE		Vent220	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059501.16	2168529.90	15.00
POINTSOURCE		Vent221	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059513.24	2168814.67	15.00
POINTSOURCE		Vent222	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059547.32	2168604.38	15.00
POINTSOURCE		Vent223	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059545.16	2168873.69	15.00
POINTSOURCE		Vent224	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059541.90	2168815.91	15.00
POINTSOURCE		Vent225	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059544.91	2168667.95	15.00
POINTSOURCE		Vent226	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059508.08	2168818.90	15.00
POINTSOURCE		Vent227	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059560.30	2168601.11	15.00
POINTSOURCE		Vent228	66.0	66.0	66.0	Lw	66		720.00	120.00	540.00	0.0	1.00	g	7059559.17	2168546.95	15.00

Barrier(s)

Name	M.	ID	Absorption		Z-Ext.	Cantilever		Height				Coordinates			
			left	right		horz.	vert.	Begin		End		x	y	z	Ground
					(ft)	(ft)	(ft)	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
Parapet		P1						2.00	g			7058528.56	2169281.66	16.00	0.00
												7058419.76	2169278.23	16.00	0.00
												7058432.54	2168901.51	16.00	0.00
												7058541.41	2168905.22	16.00	0.00
												7058528.55	2169281.53	16.00	0.00

Building(s)

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
BUILDING		BUILDING00001	x	0		14.00	a	7058529.46	2169282.18	14.00	0.00
								7058542.45	2168904.69	14.00	0.00
								7058432.03	2168900.70	14.00	0.00
								7058419.43	2169278.49	14.00	0.00
BUILDING		BUILDING00002	x	0		14.00	a	7058888.83	2169292.60	14.00	0.00
								7058901.82	2168915.11	14.00	0.00

Name	M.	ID	RB	Residents	Absorption	Height		Coordinates			
						Begin		x	y	z	Ground
						(ft)		(ft)	(ft)	(ft)	(ft)
								7058791.41	2168911.12	14.00	0.00
								7058778.81	2169288.91	14.00	0.00
BUILDING		BUILDING00003	x	0		14.00	a	7058543.35	2168848.16	14.00	0.00
								7058556.34	2168470.66	14.00	0.00
								7058445.92	2168466.67	14.00	0.00
								7058433.32	2168844.47	14.00	0.00
BUILDING		BUILDING00004	x	0		14.00	a	7058719.56	2168855.10	14.00	0.00
								7058732.55	2168477.61	14.00	0.00
								7058622.14	2168473.62	14.00	0.00
								7058609.54	2168851.41	14.00	0.00
BUILDING		BUILDING00005	x	0		14.00	a	7058904.46	2168861.18	14.00	0.00
								7058917.45	2168483.69	14.00	0.00
								7058807.03	2168479.69	14.00	0.00
								7058794.43	2168857.49	14.00	0.00
BUILDING		BUILDING00006	x	0		14.00	a	7059576.55	2168885.05	14.00	0.00
								7059589.54	2168507.56	14.00	0.00
								7059479.12	2168503.56	14.00	0.00
								7059466.53	2168881.36	14.00	0.00
BUILDING		BUILDING00007	x	0		14.00	a	7058713.83	2169288.43	14.00	0.00
								7058726.82	2168910.94	14.00	0.00
								7058609.12	2168907.47	14.00	0.00
								7058596.52	2169285.26	14.00	0.00
BUILDING		BUILDING00008	x	0		14.00	a	7059386.23	2169312.22	14.00	0.00
								7059399.22	2168934.73	14.00	0.00
								7059280.99	2168930.21	14.00	0.00
								7059268.39	2169308.01	14.00	0.00
BUILDING		BUILDING00009	x	0		14.00	a	7059562.97	2169318.64	14.00	0.00
								7059575.96	2168941.15	14.00	0.00
								7059465.54	2168937.16	14.00	0.00
								7059452.94	2169314.95	14.00	0.00
BUILDING		BUILDING00010	x	0		28.00	a	7059201.68	2169306.49	28.00	0.00
								7059214.67	2168929.00	28.00	0.00
								7059104.25	2168925.00	28.00	0.00
								7059091.66	2169302.80	28.00	0.00
BUILDING		BUILDING00011	x	0		14.00	a	7059215.22	2168870.94	14.00	0.00
								7059228.21	2168493.45	14.00	0.00
								7059117.80	2168489.46	14.00	0.00
								7059105.20	2168867.25	14.00	0.00
BUILDING		BUILDING00012	x	0		14.00	a	7059399.90	2168877.89	14.00	0.00
								7059412.89	2168500.40	14.00	0.00
								7059302.47	2168496.40	14.00	0.00
								7059289.88	2168874.20	14.00	0.00

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APPENDIX 10.1:

CADNAA CONSTRUCTION NOISE MODEL INPUTS

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14338-2 Edelweiss Sustainable Farms - Construction

CadnaA Noise Prediction Model: 14338-02_Construction.cna
Date: 15.02.22
Analyst: B. Maddux

Calculation Configuration

Configuration	
Parameter	Value
General	
Country	(user defined)
Max. Error (dB)	0.00
Max. Search Radius (#(Unit,LEN))	2000.01
Min. Dist Src to Rcvr	0.00
Partition	
Raster Factor	0.50
Max. Length of Section (#(Unit,LEN))	999.99
Min. Length of Section (#(Unit,LEN))	1.01
Min. Length of Section (%)	0.00
Proj. Line Sources	On
Proj. Area Sources	On
Ref. Time	
Reference Time Day (min)	960.00
Reference Time Night (min)	480.00
Daytime Penalty (dB)	0.00
Recr. Time Penalty (dB)	5.00
Night-time Penalty (dB)	10.00
DTM	
Standard Height (m)	0.00
Model of Terrain	Triangulation
Reflection	
max. Order of Reflection	2
Search Radius Src	100.00
Search Radius Rcvr	100.00
Max. Distance Source - Rcvr	1000.00 1000.00
Min. Distance Rvcr - Reflector	1.00 1.00
Min. Distance Source - Reflector	0.10
Industrial (ISO 9613)	
Lateral Diffraction	some Obj
Obst. within Area Src do not shield	On
Screening	Incl. Ground Att. over Barrier
	Dz with limit (20/25)
Barrier Coefficients C1,2,3	3.0 20.0 0.0
Temperature (#(Unit,TEMP))	10
rel. Humidity (%)	70
Ground Absorption G	0.00
Wind Speed for Dir. (#(Unit,SPEED))	3.0
Roads (TNM)	
Railways (FTA/FRA)	
Aircraft (???)	
Strictly acc. to AzB	

Receiver Noise Levels

Name	M.	ID	Level Lr				Limit. Value				Land Use			Height		Coordinates		
			Ld	Le	Ln	Lden	Ld	Le	Ln	Lden	Type	Auto	Noise Type			X	Y	Z
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)				(ft)		(ft)	(ft)	(ft)
RECEIVERS		R1	52.8	30.2	25.5	49.8	0.0	0.0	0.0	65.0				5.00	a	7059708.63	2170869.60	5.00
RECEIVERS		R2	52.2	29.7	24.9	49.3	0.0	0.0	0.0	65.0				5.00	a	7061188.54	2169399.46	5.00
RECEIVERS		R3	64.5	41.9	37.2	61.6	0.0	0.0	0.0	65.0				5.00	a	7058313.20	2169242.71	5.00
RECEIVERS		R4	52.3	29.8	25.0	49.4	0.0	0.0	0.0	65.0				5.00	a	7056837.93	2169207.39	5.00

Area Source(s)

Name	M.	ID	Result. PWL			Result. PWL''			Lw / Li			Operating Time			Height
			Day	Evening	Night	Day	Evening	Night	Type	Value	norm.	Day	Special	Night	(ft)
			(dBA)	(dBA)	(dBA)	(dBA)	(dBA)	(dBA)			dB(A)	(min)	(min)	(min)	
Construction Activity		Const01	115.4	115.4	115.4	64.3	64.3	64.3	Lw	115.4		720.00	1.00	1.00	8

Name	Height				Coordinates			
	Begin		End		x	y	z	Ground
	(ft)		(ft)		(ft)	(ft)	(ft)	(ft)
Construction Activity	8.00	a			7058352.63	2169431.55	8.00	0.00
					7059656.06	2169475.48	8.00	0.00
					7059692.14	2168428.64	8.00	0.00
					7058389.83	2168339.26	8.00	0.00

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EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix M.1

Traffic Study

May 2022

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Edelweiss Sustainable Farms Project

TRAFFIC STUDY

CITY OF BLYTHE

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FEBRUARY 17, 2022 (REVISED)
JANUARY 26, 2022
AUGUST 16, 2021

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LIST OF ABBREVIATED TERMS

(1)	Reference
ADT	Average Daily Traffic
Caltrans	California Department of Transportation
DIF	Development Impact Fee
FHWA	Federal Highway Administration
HCM	Highway Capacity Manual
ITE	Institute of Transportation Engineers
LOS	Level of Service
MUTCD	Manual on Uniform Traffic Control Devices
N/A	Not Applicable
PHF	Peak Hour Factor
Project	Edelweiss Sustainable Farms Project
RTP	Regional Transportation Plan
SCAG	Southern California Association of Governments
SCS	Sustainable Communities Strategy
tsf	Thousand Square Feet
TS	Traffic Study

1 INTRODUCTION

This report presents the results of the traffic study (TS) for the proposed Edelweiss Sustainable Farms Project ("Project"), which is located south of Hobsonway and east of Defrain Boulevard in the City of Blythe as shown on Exhibit 1-1.

The purpose of this TS is to evaluate the potential circulation system deficiencies that may result from the development of the proposed Project, and recommend improvements to achieve acceptable circulation system operational conditions. This TS has been prepared based in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020) as the City of Blythe does not have its own LOS/VMT analysis guidelines. (1) To ensure that this TS satisfies the City of Blythe's traffic study requirements, Urban Crossroads, Inc. prepared a traffic study scoping package for review by City staff. The approved TS Scope is included in Appendix 1.1.

1.1 PROJECT OVERVIEW

The Project is proposed to consist of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration/office building uses. Access to the Project will be provided directly to Hobsonway via one primary (gated) driveway and two (gated) emergency only driveways. For the purposes of this analysis, it is assumed that the Project will be fully built and operational by Year 2026.

Trips generated by the Project's proposed land uses have been estimated based on trip generation rates collected by the Institute of Transportation Engineers (ITE) *Trip Generation Manual*, 10th Edition, 2017. (2) The proposed Project is estimated to generate a total of 2,279 trip-ends per day with 359 AM peak hour trips and 383 PM peak hour trips. The assumptions and methods used to estimate the Project's trip generation characteristics are discussed in greater detail in Section 4.1 *Project Trip Generation* of this report.

1.2 ANALYSIS SCENARIOS

For the purposes of this traffic study, potential impacts to traffic and circulation have been evaluated for each of the following conditions:

- Existing (2021) Conditions
- Cumulative 5 Year (2026) without Project Conditions
- Cumulative 5 Year (2026) with Project Conditions
- General Plan (2040) without Project Conditions
- General Plan (2040) with Project Conditions

1.2.1 EXISTING (2021) CONDITIONS

Existing physical conditions have been disclosed to represent the baseline traffic conditions as they existed at the time this report was prepared.

EXHIBIT 1-1: SITE PLAN



New traffic counts were collected in June 2021 during the following timeframes: 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. Due to the COVID-19 pandemic, these new 2021 peak hour counts are lower than typical conditions. Based upon recent Coachella Valley traffic analyses, a 33% increase has been applied to the raw June 2021 counts to estimate for "typical/non-COVID-19" 2021 conditions. Counts taken during the month of June have also been increased by 15% in order to estimate peak season conditions.

1.2.2 CUMULATIVE 5 YEAR (2026) CONDITIONS

A comparison of the Cumulative 5 Year (2026) Without Project and With Project traffic conditions analyses determine the potential near-term cumulative circulation system deficiencies.

To account for background traffic growth, the existing (2021) volumes have been adjusted by adding 5 years of background (ambient) growth (2% per year, total of 10.408% compounded over a 5-year period). Conservatively, this TS estimates the area ambient traffic growth for 2026 conditions and then adds traffic generated by other known or probable related projects in conjunction with Project traffic. These related projects are at least in part already accounted for in the assumed 2% of ambient growth; and some of these related projects would likely not be implemented and operational within the 2026 Cumulative 5 Year (2026) time frame assumed for the Project.

1.2.3 GENERAL PLAN (2040) CONDITIONS

A comparison of the General Plan (2040) Without Project and With Project traffic conditions analyses determine the potential long range cumulative circulation system deficiencies.

1.3 STUDY AREA

To ensure that this TS satisfies the needs of the City of Blythe, Urban Crossroads, Inc. prepared a Project specific traffic study scoping agreement for review by City staff prior to the preparation of this TS. The agreement provides an outline of the study area, trip generation, trip distribution, and analysis methodology (see Appendix 1.1).

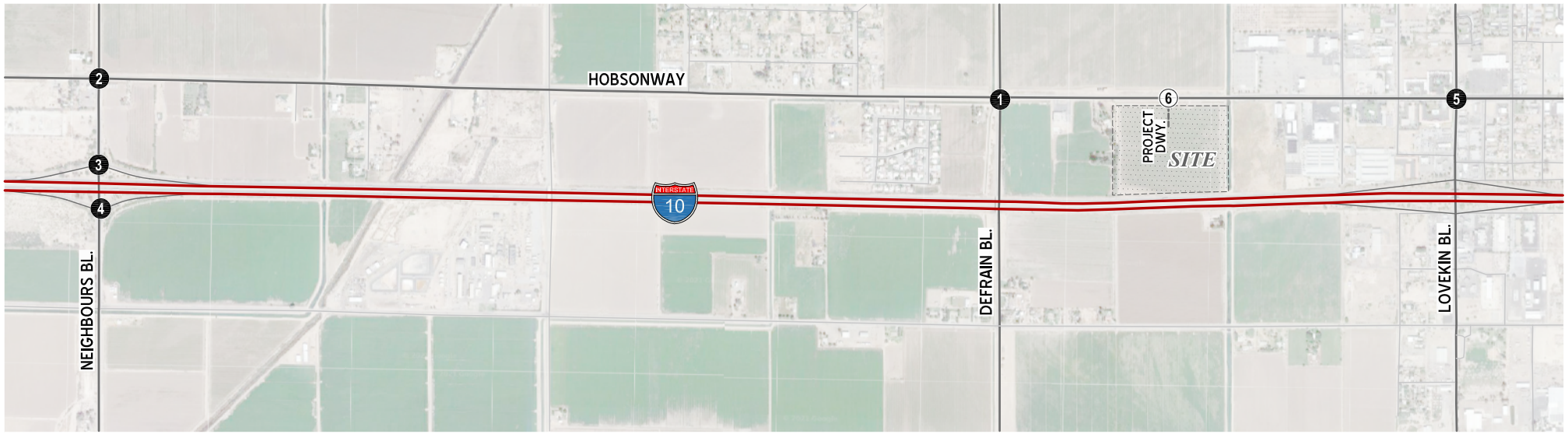
1.3.1 INTERSECTIONS

The following 6 study area intersections listed in Table 1-1 and shown on Exhibit 1-2, were selected for this TS based on consultation with City of Blythe staff.

TABLE 1-1: INTERSECTION ANALYSIS LOCATIONS

ID	Intersection Location	Jurisdiction
1	Defrain Boulevard / Hobsonway	City of Blythe
2	Neighbours Boulevard / Hobsonway	City of Blythe
3	Neighbours Boulevard / I-10 WB Ramps	Caltrans, City of Blythe
4	Neighbours Boulevard / I-10 EB Ramps	Caltrans, City of Blythe
5	Lovekin Boulevard / Hobsonway	City of Blythe
6	Project Driveway / Hobsonway	City of Blythe

EXHIBIT 1-2: STUDY AREA



LEGEND:

5 = EXISTING ANALYSIS LOCATION
(1) = FUTURE ANALYSIS LOCATION
= FUTURE DRIVEWAY

N

14135 - 01.dwg

URBAN CROSSROADS

1.4 ANALYSIS FINDINGS

This section provides a summary of the analysis results for Existing (2021), Cumulative 5 Year (2026) Without Project and With Project, General Plan (2040) Without Project and With Project traffic conditions.

Existing (2021) and Cumulative 5 Year (2026) Conditions

For Existing (2021), Cumulative 5 Year (2026) Without Project and With Project traffic conditions, the study area intersections were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours.

General Plan (2040) Conditions

For General Plan (2040) Without Project traffic conditions, the study area intersections were found to operate at an acceptable LOS (i.e., LOS D or better) during the peak hours with the exception of the following intersections:

- #3 - Neighbours Boulevard / I-10 WB Ramps
- #4 - Neighbours Boulevard / I-10 EB Ramps

Traffic signal warrant analysis results indicate that the 2 unsignalized deficient intersections (#3 – Neighbours Bl./I-10 WB Ramps & #4 – Neighbours/I-10 EB Ramps) are anticipated to meet warrants for General Plan (2040) Without Project conditions.

For General Plan (2040) With Project traffic conditions, the intersection analysis results indicate that the addition of Project traffic is not anticipated to result in new LOS deficiency, in addition to the two deficient intersections identified under General Plan (2040) Without Project conditions.

The traffic signal warrant analysis results for with Project conditions indicate that the Project Driveway/Hobsonway (#6) intersection is anticipated meet warrants. It should be noted that the Project Driveway/Hobsonway (#6) is projected to operate at an acceptable level of service (LOS "D" or better) without a traffic signal. Meeting signal warrant condition does not automatically require a traffic signal be installed. Other traffic factors and conditions should be evaluated in order to determine whether the signal is truly justified.

1.5 RECOMMENDED IMPROVEMENTS

A summary of the operationally deficient study area intersections and recommended improvements required to achieve acceptable circulation system performance are described in detail within Sections 5 *Cumulative 5 Year (2026) Conditions* and Section 6 *General Plan (2040) Conditions* of this report.

The intersections of Neighbours Boulevard/I-10 WB Ramps (#3) and Neighbours Boulevard/I-10 EB Ramps (#4) are anticipated to operate at acceptable level of service with the installation of traffic signals and turn lane improvements for General Plan (2040) conditions. Project

participation in the provision of improvements to provide traffic signals (when needed) is recommended on a fair share basis, as indicated in Section 1.6.2.

1.5.1 Site Access Improvements

Roadways adjacent to the Project, site access points and site-adjacent intersections will be constructed in conjunction with adjacent Project development activity or as needed for Project access purposes, consistent with the recommended roadway classifications and respective cross-sections in the City of Blythe General Plan Circulation Element, as indicated on Exhibit 1-3.

Hobsonway – Hobsonway is an east-west oriented roadway located along the Project's northern boundary. Construct Hobsonway from the Project's westerly boundary to the Project's easterly boundary at its ultimate half-section width as a Major Arterial Collector (96-foot right-of-way) in compliance with the applicable City of Blythe standards.

Project Driveway / Hobsonway (#6) – Install a stop control on the northbound approach and construct one shared left/right turn lane as illustrated on Exhibit 1-3.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at the primary access point should be reviewed with respect to standard Caltrans and City of Blythe sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

1.6 Development Impact Fee (DIF) Program and Project Fair Share

1.6.1 City of Blythe Development Impact Fee (DIF) Program

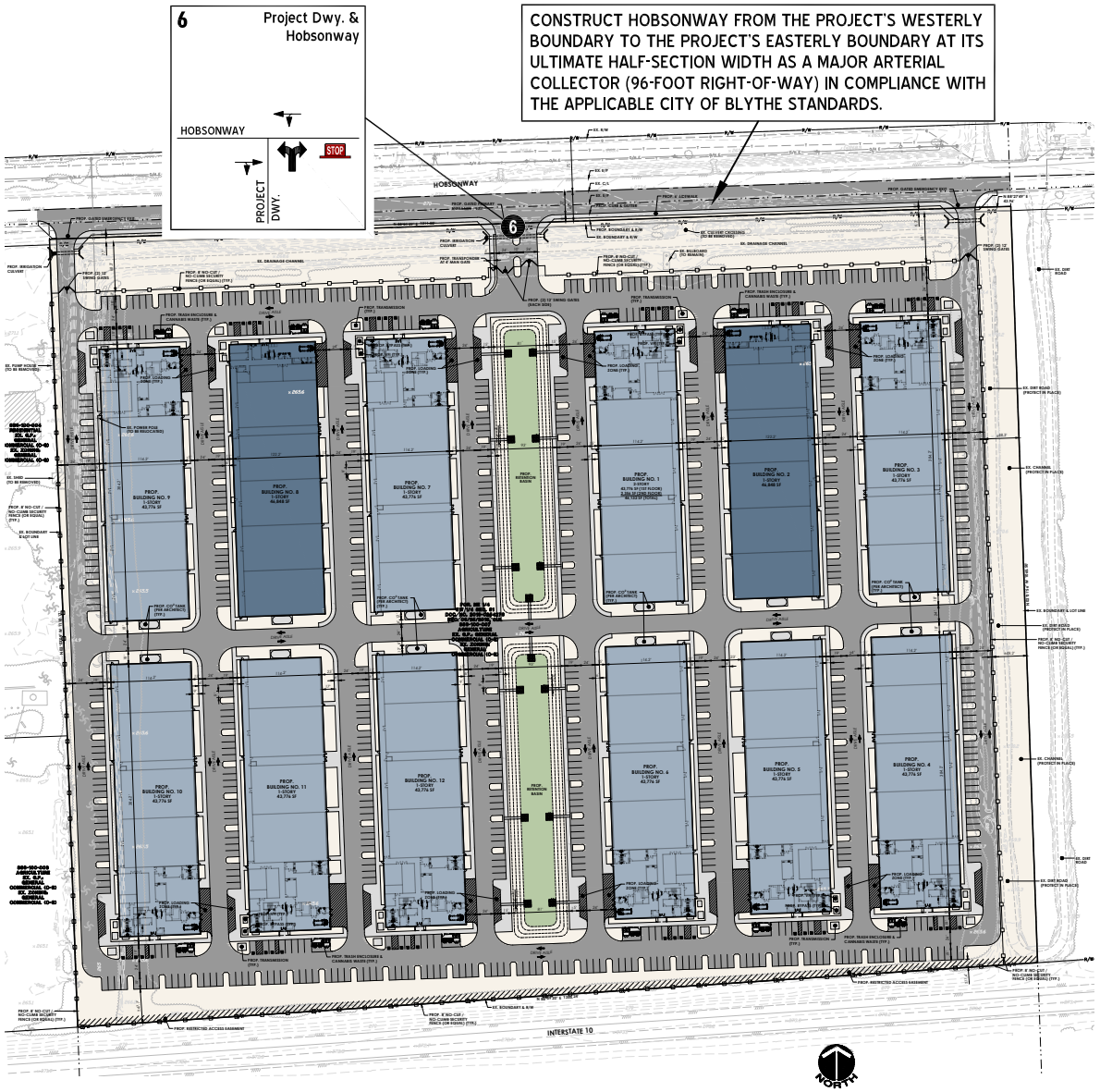
The City of Blythe has created a local Development Impact Fee (DIF) program to impose and collect fees from new residential, commercial, and industrial development for the purposes of funding roadways and intersections necessary to accommodate City growth as identified in the City's Municipal Code.

Periodic review and adjustment of the City's DIFs in future years will be appropriate and warranted in order to continue to ensure that the City collects sufficient funds to construct the additional infrastructure needed to serve new residents and businesses developing in town. The Project Applicant will be subject to the City's DIF program, and will pay the requisite City DIF fees at the rates then in effect pursuant to the City's ordinance.

1.6.2 Fair Share Contribution

Project mitigation may include a combination of fee payments to the established DIF program, construction of specific improvements, payment of a fair share contribution toward future improvements or a combination of these approaches. Improvements constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate (to be determined at the City of Blythe's discretion).

EXHIBIT 1-3: SITE ACCESS AND SITE ADJACENT ROADWAY RECOMMENDATIONS



LEGEND:

- # = INTERSECTION ID
- STOP = FUTURE STOP SIGN
- = EXISTING LANE
- = LANE IMPROVEMENT

ON-SITE TRAFFIC SIGNING AND STRIPING SHOULD BE IMPLEMENTED IN CONJUNCTION WITH DETAILED CONSTRUCTION PLANS FOR THE PROJECT SITE.

SIGHT DISTANCE AT THE PRIMARY ACCESS POINT SHOULD BE REVIEWED WITH RESPECT TO STANDARD CALTRANS AND CITY OF BLYTHE SIGHT DISTANCE STANDARDS AT THE TIME OF PREPARATION OF FINAL GRADING, LANDSCAPE AND STREET IMPROVEMENT PLANS.

Detailed fair share calculations, for each peak hour, have been provided on Table 1-2. As shown in Table 1-2, the project contributes approximately 18% of the new traffic at the intersection of Neighbours Boulevard / I-10 WB Ramps (#3) and 8% of the new traffic at the intersection of Neighbours Boulevard / I-10 EB Ramps (#4). Improvements included in a defined program and constructed by development may be eligible for a fee credit or reimbursement through the program where appropriate.

1.7 VEHICLE MILES TRAVELED

The City of Blythe utilizes the December 2020 County of Riverside Transportation Guidelines for Vehicle Miles Traveled (VMT) assessments. Figure 3 of the December 2020 County Guidelines for VMT sets forth screening criteria under which Projects are not required to submit detailed VMT analysis. (1) This guidance for determination of non-significant VMT impact is primarily intended to avoid unnecessary analysis and findings that would be inconsistent with the intent of SB 743.

Project VMT has been evaluated and provided in a separate letter *"Edelweiss Sustainable Farms Project Vehicle Miles Traveled (VMT) Analysis"*, dated February 17, 2022.

TABLE 1-2: FAIR SHARE CALCULATIONS

ID	Intersection	Existing (2021) Traffic	2040 w/ Project Traffic	Project Only Traffic	Total New Traffic[1]	Project Fair Share (%)[2]
3	Neighbours Bl. / I-10 WB Ramps					
	• AM Peak Hour	267	1,512	179	1,245	14%
	• PM Peak Hour	256	1,328	192	1,072	**18%**
4	Neighbours Bl. / I-10 EB Ramps					
	• AM Peak Hour	251	1,885	125	1,634	**8%**
	• PM Peak Hour	314	1,836	87	1,522	6%

[1] Total New Traffic = (2040 With Project Traffic - Existing Traffic)

[2] Project Fair Share % = (Project Only Traffic / Total New Traffic)

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2 METHODOLOGIES

This section documents the methodologies and assumptions used to perform this traffic assessment.

2.1 LEVEL OF SERVICE

Traffic operations of roadway facilities are described using the term Level of Service (LOS). LOS is a qualitative description of traffic flow based on several factors such as speed, travel time, delay, and freedom to maneuver. Six levels are typically defined ranging from LOS A, representing completely free-flow conditions, to LOS F, representing breakdown in flow resulting in stop-and-go conditions. LOS E represents operations at or near capacity, an unstable level where vehicles are operating with the minimum spacing for maintaining uniform flow.

2.2 INTERSECTION CAPACITY ANALYSIS

The definitions of LOS for interrupted traffic flow (flow restrained by the existence of traffic signals and other traffic control devices) differ slightly depending on the type of traffic control. The LOS is typically dependent on the quality of traffic flow at the intersections along a roadway. The *Highway Capacity Manual* (HCM) methodology expresses the LOS at an intersection in terms of delay time for the various intersection approaches. (3) The HCM uses different procedures depending on the type of intersection control.

2.2.1 SIGNALIZED INTERSECTIONS

The City of Blythe requires signalized intersection operations analysis based on the methodology described in the HCM. Intersection LOS operations are based on an intersection's average control delay. Control delay includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. For signalized intersections LOS is directly related to the average control delay per vehicle and is correlated to a LOS designation as described in Table 2-1.

The traffic modeling and signal timing optimization software package Synchro has been utilized to analyze the study area intersections. Synchro is a macroscopic traffic software program that is based on the signalized intersection capacity analysis as specified in the HCM. Macroscopic level models represent traffic in terms of aggregate measures for each movement at the study intersections.

Equations are used to determine measures of effectiveness such as delay and queue length. The level of service and capacity analysis performed by Synchro takes into consideration optimization and coordination of signalized intersections within a network.

TABLE 2-1: SIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay (Seconds), V/C ≤ 1.0	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Operations with very low delay occurring with favorable progression and/or short cycle length.	0 to 10.00	A	F
Operations with low delay occurring with good progression and/or short cycle lengths.	10.01 to 20.00	B	F
Operations with average delays resulting from fair progression and/or longer cycle lengths. Individual cycle failures begin to appear.	20.01 to 35.00	C	F
Operations with longer delays due to a combination of unfavorable progression, long cycle lengths, or high V/C ratios. Many vehicles stop and individual cycle failures are noticeable.	35.01 to 55.00	D	F
Operations with high delay values indicating poor progression, long cycle lengths, and high V/C ratios. Individual cycle failures are frequent occurrences. This is considered to be the limit of acceptable delay.	55.01 to 80.00	E	F
Operation with delays unacceptable to most drivers occurring due to over saturation, poor progression, or very long cycle lengths.	80.01 and up	F	F

Source: HCM 6th Edition

The peak hour traffic volumes have been adjusted using a peak hour factor (PHF) to reflect peak 15 minute volumes. Common practice for LOS analysis is to use a peak 15-minute rate of flow. However, flow rates are typically expressed in vehicles per hour. The PHF is the relationship between the peak 15-minute flow rate and the full hourly volume (e.g. PHF = [Hourly Volume] / [4 x Peak 15-minute Flow Rate]). The use of a 15-minute PHF produces a more detailed analysis as compared to analyzing vehicles per hour. Existing PHFs have been used for all analysis scenarios. Per Chapter 4 of the HCM 6th Edition, PHF values over 0.95 often are indicative of high traffic volumes with capacity constraints on peak hour flows while lower PHF values are indicative of greater variability of flow during the peak hour.

2.2.2 UNSIGNALIZED INTERSECTIONS

The City of Blythe requires the operations of unsignalized intersections be evaluated using the methodology described in the methodology described in Chapter 19, Chapter 20, and Chapter 32 of the HCM 6th Edition. (3) The LOS rating is based on the weighted average control delay expressed in seconds per vehicle (see Table 2-2).

TABLE 2-2: UNSIGNALIZED INTERSECTION DESCRIPTION OF LOS

Description	Average Control Delay Per Vehicle (Seconds)	Level of Service, V/C ≤ 1.0	Level of Service, V/C > 1.0
Little or no delays.	0 to 10.00	A	F
Short traffic delays.	10.01 to 15.00	B	F
Average traffic delays.	15.01 to 25.00	C	F
Long traffic delays.	25.01 to 35.00	D	F
Very long traffic delays.	35.01 to 50.00	E	F
Extreme traffic delays with intersection capacity exceeded.	> 50.00	F	F

Source: HCM 6th Edition

At two-way or side-street stop-controlled intersections, LOS is calculated for each controlled movement and for the left turn movement from the major street, as well as for the intersection as a whole. For approaches composed of a single lane, the delay is computed as the average of all movements in that lane. For all-way stop controlled intersections, LOS is computed for the intersection as a whole.

2.3 TRAFFIC SIGNAL WARRANT METHODOLOGY

The term "signal warrants" refers to the list of established criteria used by the California Department of Transportation (Caltrans) and other public agencies to quantitatively justify or ascertain the potential need for installation of a traffic signal at an otherwise unsignalized intersection. This TS uses the signal warrant criteria presented in the latest edition of the Federal Highway Administration's (FHWA) *Manual on Uniform Traffic Control Devices (MUTCD)*, as amended by *the MUTCD 2014 California Supplement*, for all study area intersections. (4)

The signal warrant criteria for Existing conditions are based upon several factors, including volume of vehicular and pedestrian traffic, frequency of accidents, and location of school areas. Both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement* indicate that the installation of a traffic signal should be considered if one or more of the signal warrants are met. (4) Specifically, this TS utilizes the Peak Hour Volume-based Warrant 3 as the appropriate representative traffic signal warrant analysis for existing study area intersections for all analysis scenarios. Warrant 3 criteria are basically identical for both the FHWA's *MUTCD* and the *MUTCD 2014 California Supplement*. Warrant 3 is appropriate to use for this TS because it provides specialized warrant criteria for intersections with rural characteristics (e.g. located in communities with populations of less than 10,000 persons or with adjacent major streets operating above 40 miles per hour). For the purposes of this study, the speed limit was the basis for determining whether Urban or Rural warrants were used for a given intersection.

Future intersections that do not currently exist have been assessed regarding the potential need for new traffic signals based on future average daily traffic (ADT) volumes, using the Caltrans planning level ADT-based signal warrant analysis worksheets.

Traffic signal warrant analyses were performed for all of the unsignalized study area intersections, as shown on Table 2-5:

TABLE 2-5: UNSIGNALIZED INTERSECTION LOCATIONS

ID	Intersection Location
1	Defrain Boulevard / Hobsonway
2	Neighbours Boulevard / Hobsonway
3	Neighbours Boulevard / I-10 WB Ramps
4	Neighbours Boulevard / I-10 EB Ramps
6	Project Driveway / Hobsonway

The Existing conditions traffic signal warrant analysis is presented in the subsequent section, Section 3 *Existing Conditions* of this report. The traffic signal warrant analysis for future conditions are presented in Section 5 *Cumulative 5 Year (2026) Conditions* and Section 6 *General Plan (2040) Conditions* of this report.

It is important to note that a signal warrant defines the minimum condition under which the installation of a traffic signal might be warranted. Meeting this condition does not require that a traffic control signal be installed at a particular location, but rather, that other traffic factors and conditions be evaluated in order to determine whether the signal is truly justified. It should also be noted that signal warrants do not necessarily correlate with LOS. An intersection may satisfy a signal warrant condition and operate at or above acceptable LOS or operate below acceptable LOS and not meet a signal warrant.

2.4 MINIMUM LEVEL OF SERVICE (LOS)

The City of Blythe has established LOS D and/or a maximum volume to capacity ratio of 0.90 is as the provisionally acceptable LOS for its intersections. Therefore, any intersection operating at LOS E or F and/or with a volume to capacity ratio greater than 0.90 will be considered deficient for the purposes of this analysis.

2.5 FAIR SHARE

In cases where this TS identifies that the Project would contribute additional traffic volumes to cumulative traffic deficiencies, Project fair share costs of improvements necessary to address deficiencies have been identified. The Project's fair share cost of improvements is determined based on the following equation, which is the ratio of Project traffic to total future traffic:

Project Fair Share % = Project Traffic / (General Plan 2040 Total Traffic – Existing Traffic)

The Project fair share contribution calculations are presented previously in Table 1-2.

3 EXISTING CONDITIONS

This section provides a summary of the existing circulation network, the City of Blythe General Plan Circulation Network, and a review of existing peak hour intersection operations and traffic signal warrant analyses.

3.1 EXISTING CIRCULATION NETWORK

The study area includes a total of 6 existing and future intersections as shown on Exhibit 1-2. Exhibit 3-1 illustrates the study area intersections located near the proposed Project and identifies the number of through traffic lanes for existing roadways and intersection traffic controls.

3.2 CITY OF BLYTHE GENERAL PLAN CIRCULATION ELEMENT

Exhibit 3-2 shows the adopted City of Blythe General Plan Circulation Element, and Exhibit 3-3 illustrates the adopted City of Blythe General Plan roadway cross-sections.

3.3 TRUCK ROUTE

Exhibit 3-4 shows the City of Blythe truck routes, as identified in the City's General Plan. As shown in Exhibit 3-4, Hobsonway and Neighbours Boulevard are designated truck routes within the study area.

3.4 TRANSIT SERVICE

The City of Blythe is currently served by the Palo Verde Valley Transit Agency (PVVTA). As shown on Exhibit 3-5, the PVVTA Routes 1 through 6 currently serves the study area. Transit service is reviewed and updated periodically to address ridership, budget and community demand needs. Changes in land use can affect these periodic adjustments which may lead to either enhanced or reduced service where appropriate.

3.5 PEDESTRIAN AND BICYCLE FACILITIES

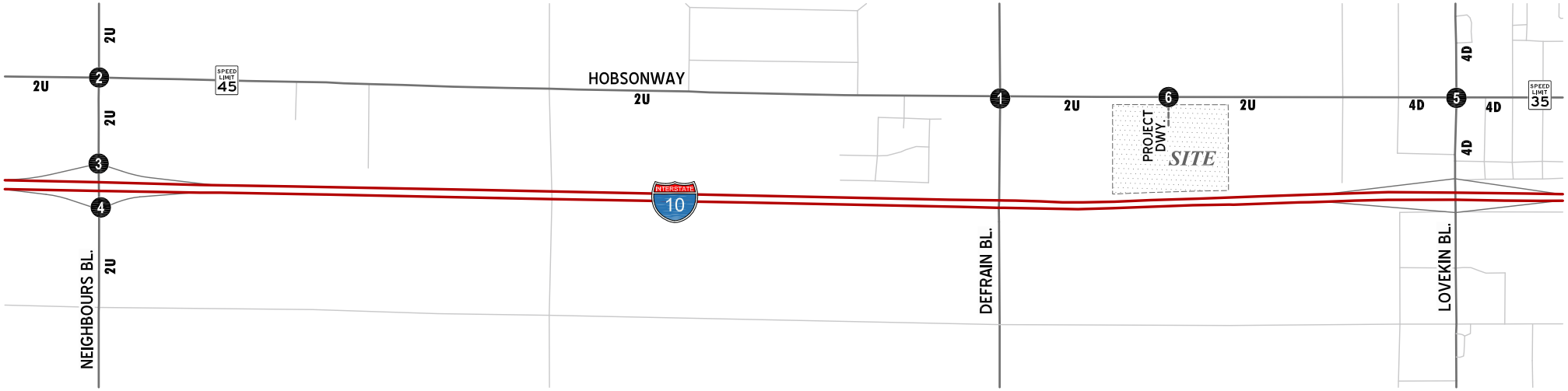
Exhibit 3-6 illustrates the City of Blythe bikeway system. Class II bike lanes are proposed along Lovekin Boulevard and Hobsonway (east of Lovekin Boulevard). Aerial observations indicate nominal pedestrian and bicycle activity within the study area. Intermittent sidewalks exist for sections of the roadway system (mostly around Lovekin Boulevard/Hobsonway intersection), but are not contiguous.

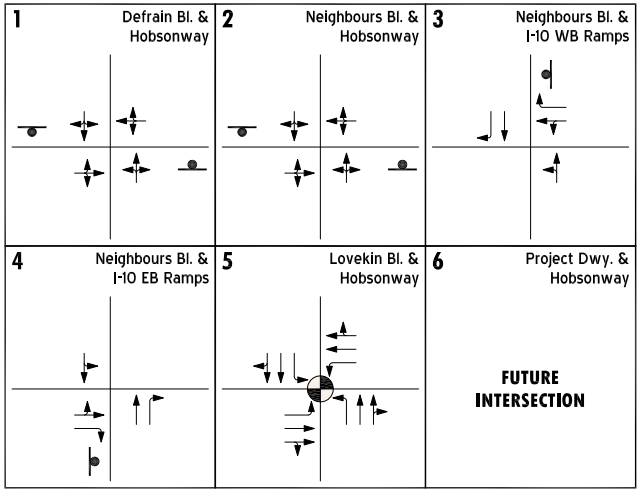
3.6 EXISTING TRAFFIC VOLUMES

New traffic counts were collected in June 2021 during the following timeframes:

- Weekday AM Peak Hour (peak hour between 7:00 AM and 9:00 AM)
- Weekday PM Peak Hour (peak hour between 4:00 PM and 6:00 PM)

EXHIBIT 3-1: EXISTING NUMBER OF THROUGH LANES AND INTERSECTION CONTROLS



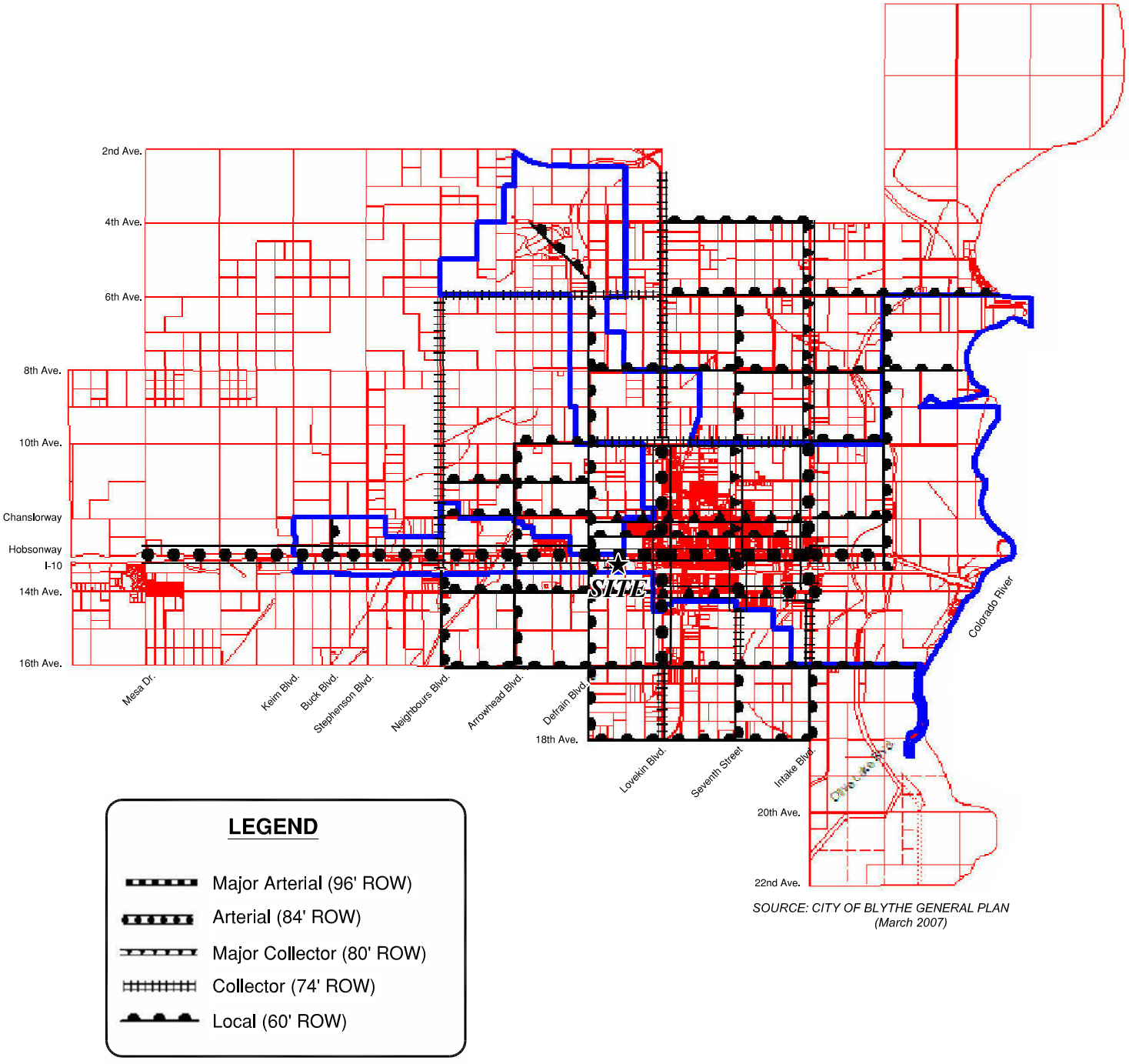


LEGEND:

- 6 = INTERSECTION ID
- = TRAFFIC SIGNAL
- = STOP SIGN
- 4 = NUMBER OF LANES
- D = DIVIDED
- U = UNDIVIDED
- – – = FUTURE ROADWAY

N

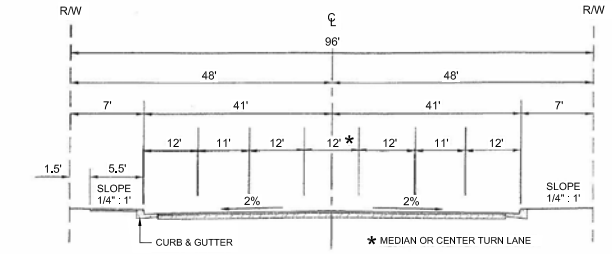
EXHIBIT 3-2: CITY OF BLYTHE GENERAL PLAN CIRCULATION ELEMENT



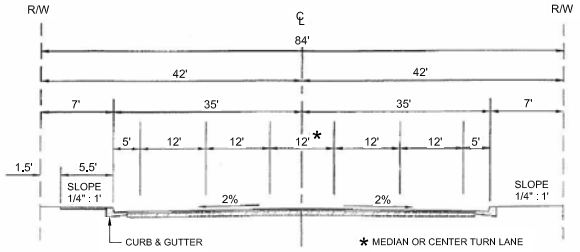
SOURCE: CITY OF BLYTHE GENERAL PLAN (March 2007)

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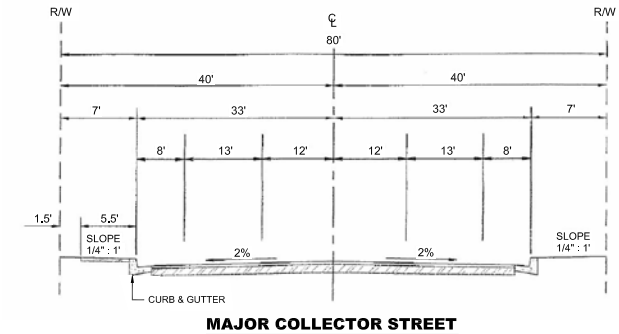
EXHIBIT 3-3: CITY OF BLYTHE GENERAL PLAN ROADWAY CROSS-SECTIONS



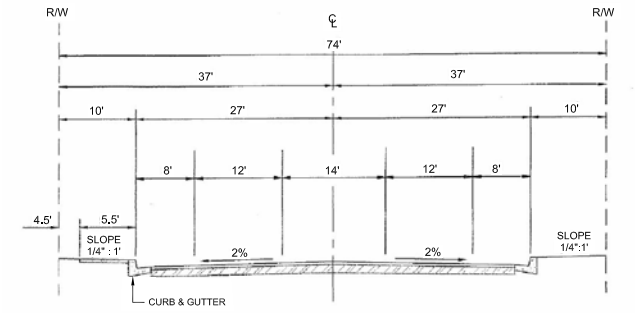
MAJOR ARTERIAL STREET
(4 LANES, WITH PARKING)



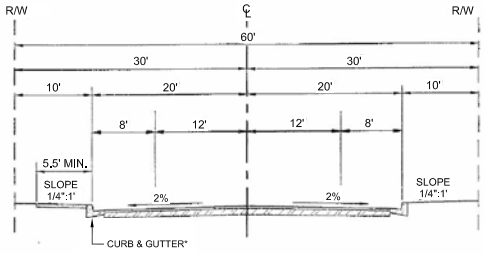
ARTERIAL STREET
(4 LANES, DIVIDED OR TURN LANE, NO PARKING)



MAJOR COLLECTOR STREET
(4 LANES WITH PARKING)



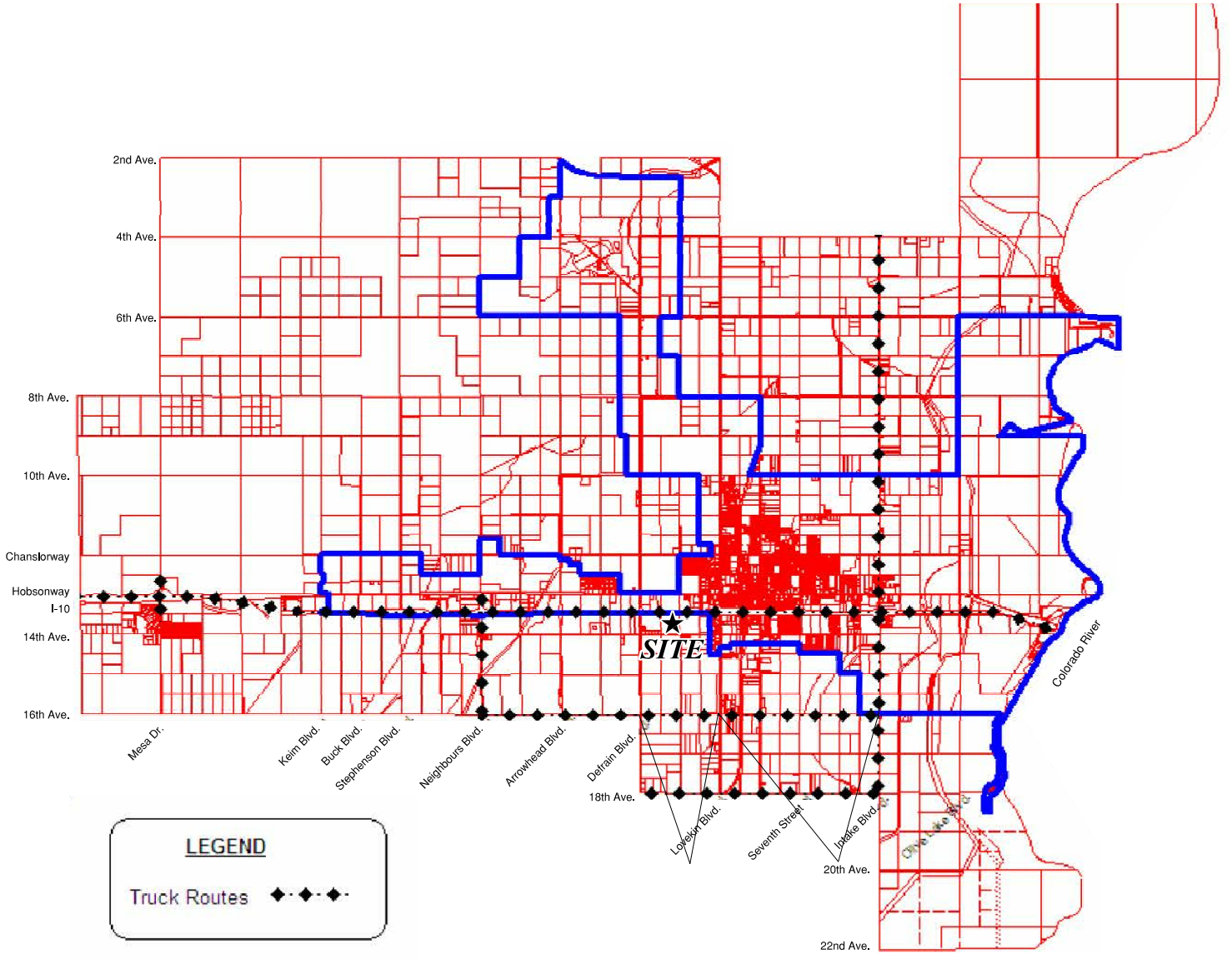
COLLECTOR STREET
(2 LANES WITH PARKING)



LOCAL STREET
(WITH PARKING)

SOURCE: CITY OF BLYTHE

EXHIBIT 3-4: CITY OF BLYTHE TRUCK ROUTES

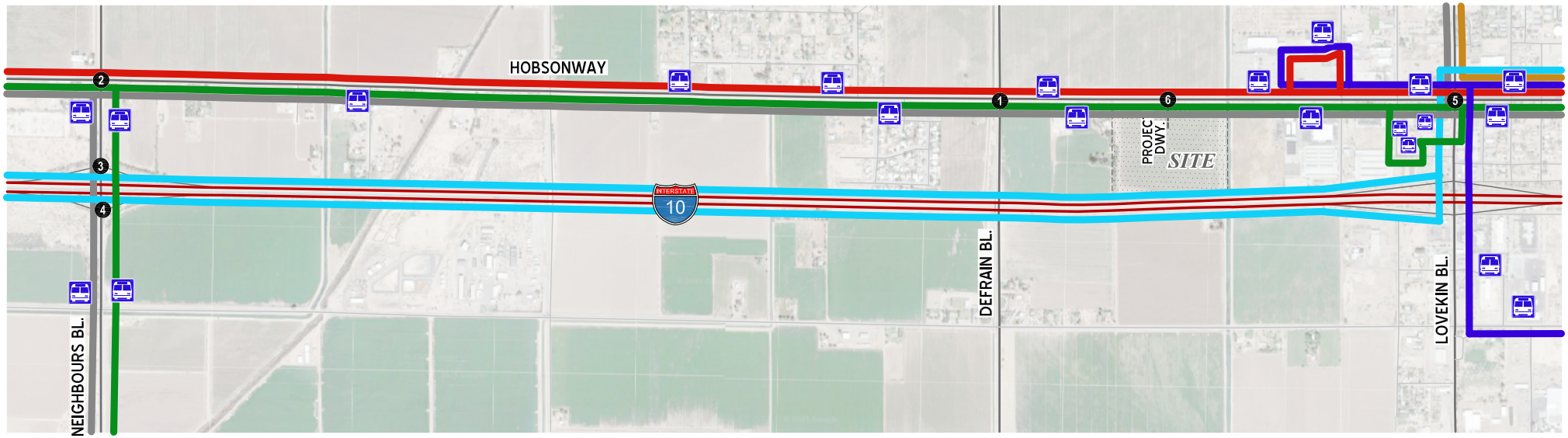


SOURCE: CITY OF BLYTHE GENERAL PLAN (March 2007)

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EXHIBIT 3-5: EXISTING TRANSIT ROUTES



SOURCE: PALO VERDE VALLEY TRANSIT AGENCY (PVVTA)

LEGEND:

- = BUS STOP
- = PVVTA BLUE ROUTE 1
- = PVVTA GOLD ROUTE 2
- = PVVTA RED ROUTE 3
- = PVVTA GREEN ROUTE 4
- = PVVTA SILVER ROUTE 5
- = PVVTA WELLNESS EXPRESS ROUTE 6
- 6 = INTERSECTION ID
- = FUTURE PROJECT DRIVEWAY

N

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URBAN CROSSROADS

EXHIBIT 3-6: CITY OF BLYTHE GENERAL PLAN BICYCLE SYSTEM



SOURCE: CITY OF BLYTHE GENERAL PLAN (March 2007)

The raw manual peak hour turning movement traffic count data sheets are included in Appendix 3.1.

Due to the COVID-19 pandemic, these new 2021 peak hour counts are anticipated to be lower than typical conditions. Based upon recent Coachella Valley traffic analyses, a 33% increase has been applied to the raw June 2021 counts to estimate for "typical/non-COVID-19" 2021 conditions. In addition, counts taken during the month of June have also been increased by 15% in order to estimate peak season conditions.

Existing weekday AM and PM peak hour intersection volumes are also shown on Exhibit 3-7. Exhibit 3-7 also shows existing weekday average daily traffic (ADT) volumes on arterial highways throughout the study area. Existing ADT volumes are based upon factored intersection peak hour counts collected by Urban Crossroads, Inc. using the following formula for each intersection leg:

Weekday PM Peak Hour (Approach Volume + Exit Volume) x 12 = Leg Volume

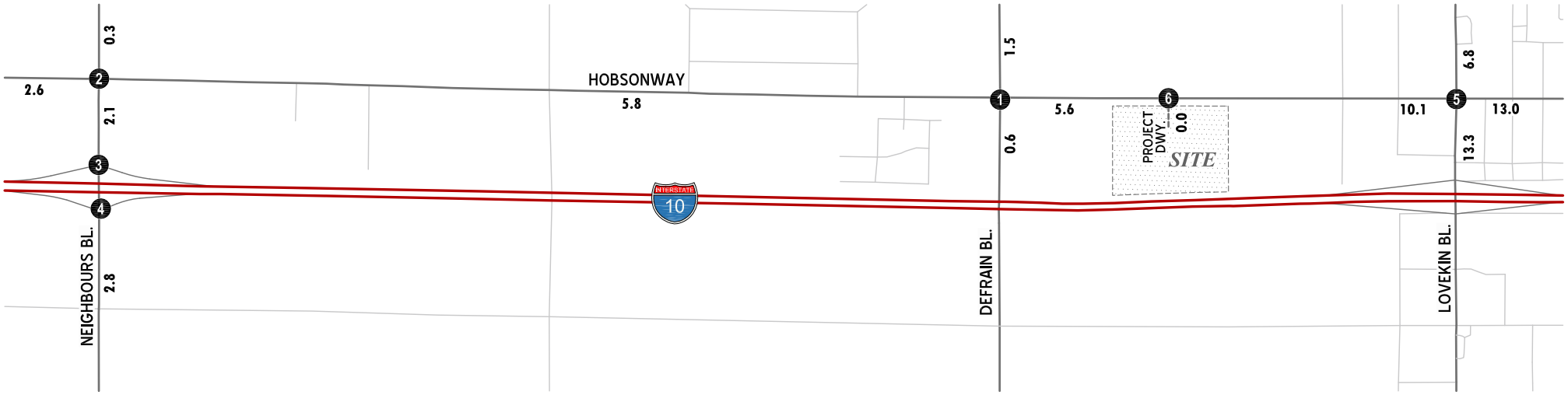
3.7 EXISTING CONDITIONS INTERSECTION OPERATIONS ANALYSIS

Existing peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2.2 *Intersection Capacity Analysis* of this report. The intersection operations analysis results are summarized in Table 3-1 which indicates that the existing study area intersections are currently operating at an acceptable LOS during the AM and PM peak hours. The intersection operations analysis worksheets are included in Appendix 3.2 of this TS.

3.8 EXISTING CONDITIONS TRAFFIC SIGNAL WARRANTS ANALYSIS

Traffic signal warrants for Existing traffic conditions are based on existing peak hour intersection turning volumes. For Existing traffic conditions, the unsignalized study area intersections are not anticipated to meet traffic signal warrants (see Appendix 3.3).

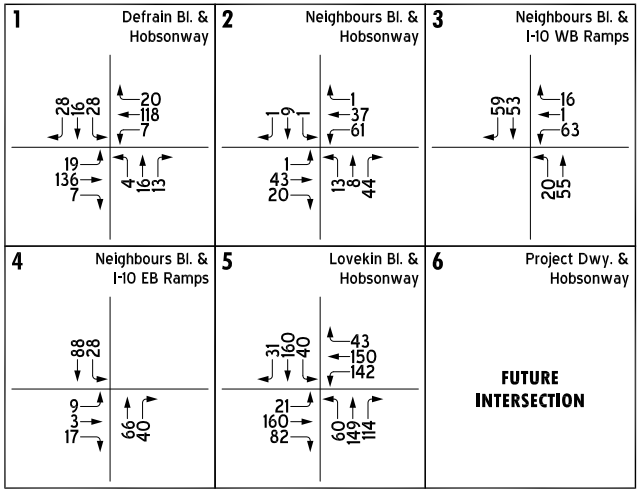
EXHIBIT 3-7: EXISTING (2021) TRAFFIC VOLUMES



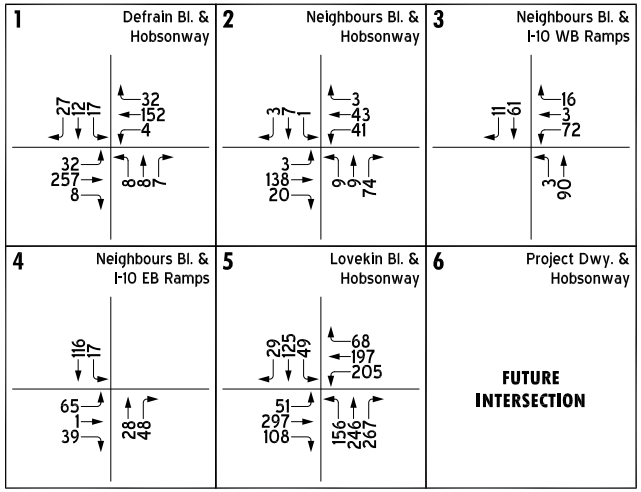
LEGEND:

- ⑥ = INTERSECTION ID
- - - - = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR



N

TABLE 3-1: INTERSECTION ANALYSIS FOR EXISTING (2021) CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Defrain Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	11.4	13.4	B	B
2	Neighbours Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	10.8	10.8	B	B
3	Neighbours Bl. / I-10 WB Ramps	CSS	0.5	0.5	0	0	1	1	0	0	0	0.5	0.5	1	10.0	10.3	B	B
4	Neighbours Bl. / I-10 EB Ramps	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	10.1	10.9	B	B
5	Lovekin Bl. / Hobsonway	TS	1	2	0	1	2	0	1	2	0	1	2	0	31.8	37.7	C	D
6	Project Dwy. / Hobsonway		Intersection Does Not Exist															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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4 PROJECTED FUTURE TRAFFIC

This section presents the traffic volumes estimated to be generated by the Project, as well as the Project's trip assignment onto the study area roadway network. The Project is proposed to consist of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration/office building uses.

For the purposes of this traffic impact analysis, it is assumed that the Project will be constructed and at full occupancy by Year 2026. Access to the Project will be provided directly to Hobsonway via one primary (gated) driveway and two (gated) emergency only driveways. For the purposes of this analysis, it is assumed that the Project will be fully built and operational by Year 2026.

4.1 PROJECT TRIP GENERATION

Trip generation represents the amount of traffic which is both attracted to and produced by a development. Determining traffic generation for a specific project is therefore based upon forecasting the amount of traffic that is expected to be both attracted to and produced by the specific land uses being proposed for a given development.

Trip generation rates used to estimate Project traffic are shown in Table 4-1, and a summary of the Project's trip generation is also shown in Table 4-1. The trip generation rates are based upon data collected by the Institute of Transportation Engineers (ITE) in their published Trip Generation manual, 10th Edition, 2017. (2) The proposed Project is estimated to generate a total of 2,279 trip-ends per day with 359 AM peak hour trips and 383 PM peak hour trips.

4.2 PROJECT TRIP DISTRIBUTION

Trip distribution is the process of identifying the probable destinations, directions or traffic routes that will be utilized by Project traffic. The potential interaction between the planned lane use and surrounding regional access routes are considered, to identify the route where the Project traffic would distribute. The Project trip distribution was developed based on anticipated travel patterns to and from the Project site. Trip distribution patterns proposed for the Project are illustrated on Exhibit 4-1.

4.3 MODAL SPLIT

Although the use of public transit, walking, and/or bicycling have the potential to reduce Project-related traffic, such reductions have not been taken into consideration in this traffic study in order to provide a conservative analysis of the Project's potential to contribute to circulation system deficiencies.

TABLE 4-1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]										
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manfacturing)	140	509.103 TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	24.709 TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25

Trip Generation Results									
Land Use	ITE LU Code	Quantity[2]	AM Peak Hour			PM Peak Hour			Daily
			In	Out	Total	In	Out	Total	
Processing & Cultivation (Manfacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
TOTAL			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] TSF = Thousand Square Feet

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EXHIBIT 4-1: PROJECT TRIP DISTRIBUTION



LEGEND:

10 = PERCENT FROM/TO PROJECT

= FUTURE DRIVEWAY

N

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URBAN CROSSROADS

4.4 PROJECT TRIP ASSIGNMENT

The assignment of traffic from the Project area to the adjoining roadway system is based upon the Project trip generation, trip distribution, and the arterial highway and local street system improvements that would be in place by the time of initial occupancy of the Project. Based on the identified Project traffic generation and trip distribution patterns, Project ADT and peak hour intersection turning movement volumes are shown on Exhibit 4-2.

4.5 BACKGROUND TRAFFIC

Future year traffic forecasts have been based upon a background (ambient) growth factor of 2% per year, compounded annually. The ambient growth factor is intended to approximate traffic growth. The total ambient growth is 10.408% for Cumulative 5 Year (2026) traffic conditions (compounded growth of 2 percent per year over 5 years). This ambient growth rate is added to existing traffic volumes to account for area-wide growth not reflected by cumulative development projects. Ambient growth has been added to daily and peak hour traffic volumes on surrounding roadways.

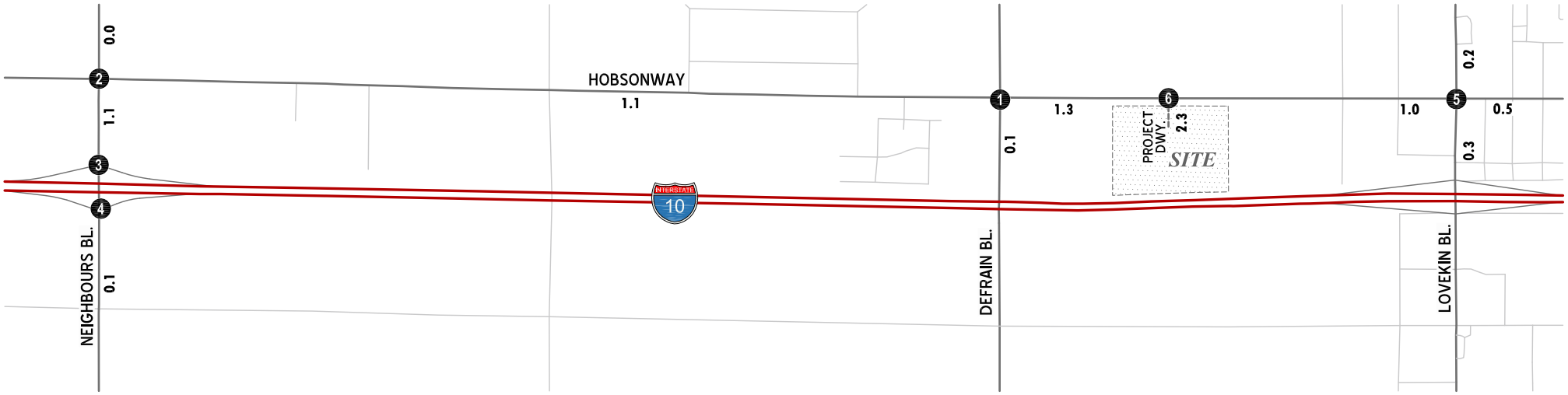
The adopted SCAG 2017 RTP/SCS growth forecasts for City of Blythe identifies projected growth in population from 20,000 in 2012 to 24,600 in 2040, or a 23% increase over the 28-year period. The change in population equates to roughly a 0.74 percent growth rate, compounded annually. Similarly, growth over the same 28-year period in households is projected to increase by 38 percent, or 1.15 percent annual growth rate. Finally, growth in employment over the same 28-year period is projected to increase by 78 percent, or a 2.09 percent annual growth rate. The 10.408% growth rate selected for use in this analysis is more conservative than the projected household growth between 2012 and 2040 for the City of Blythe from the adopted SCAG 2012 RTP/SCS (April 2017). (5)

4.6 CUMULATIVE DEVELOPMENT TRAFFIC

Other reasonably foreseeable development projects which are either approved or being processed concurrently in the study area are included as part of a cumulative analysis scenario. A cumulative project list was developed for the purposes of this analysis through consultation with planning and engineering staff from the City of Blythe.

Exhibit 4-3 illustrates the cumulative development location map. A summary of cumulative development projects and their proposed land uses are shown on Table 4-2. If applicable, the traffic generated by individual cumulative projects was manually added to the Cumulative 5 Year (2026) forecasts to ensure that traffic generated by the listed cumulative development projects in Table 4-2 are reflected as part of the background traffic. The resulting daily and peak hour traffic volumes associated with cumulative projects are shown on Exhibit 4-4.

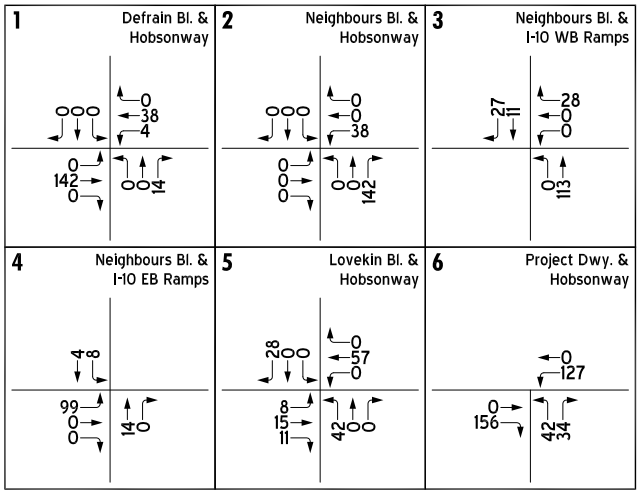
EXHIBIT 4-2: PROJECT ONLY TRAFFIC VOLUMES



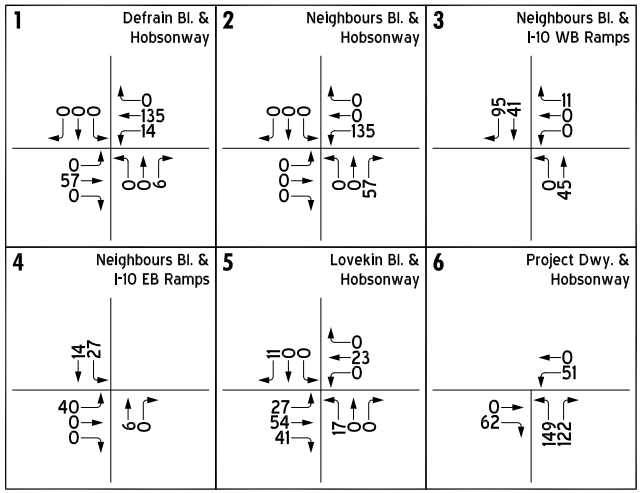
LEGEND:

- 6 = INTERSECTION ID
- = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR

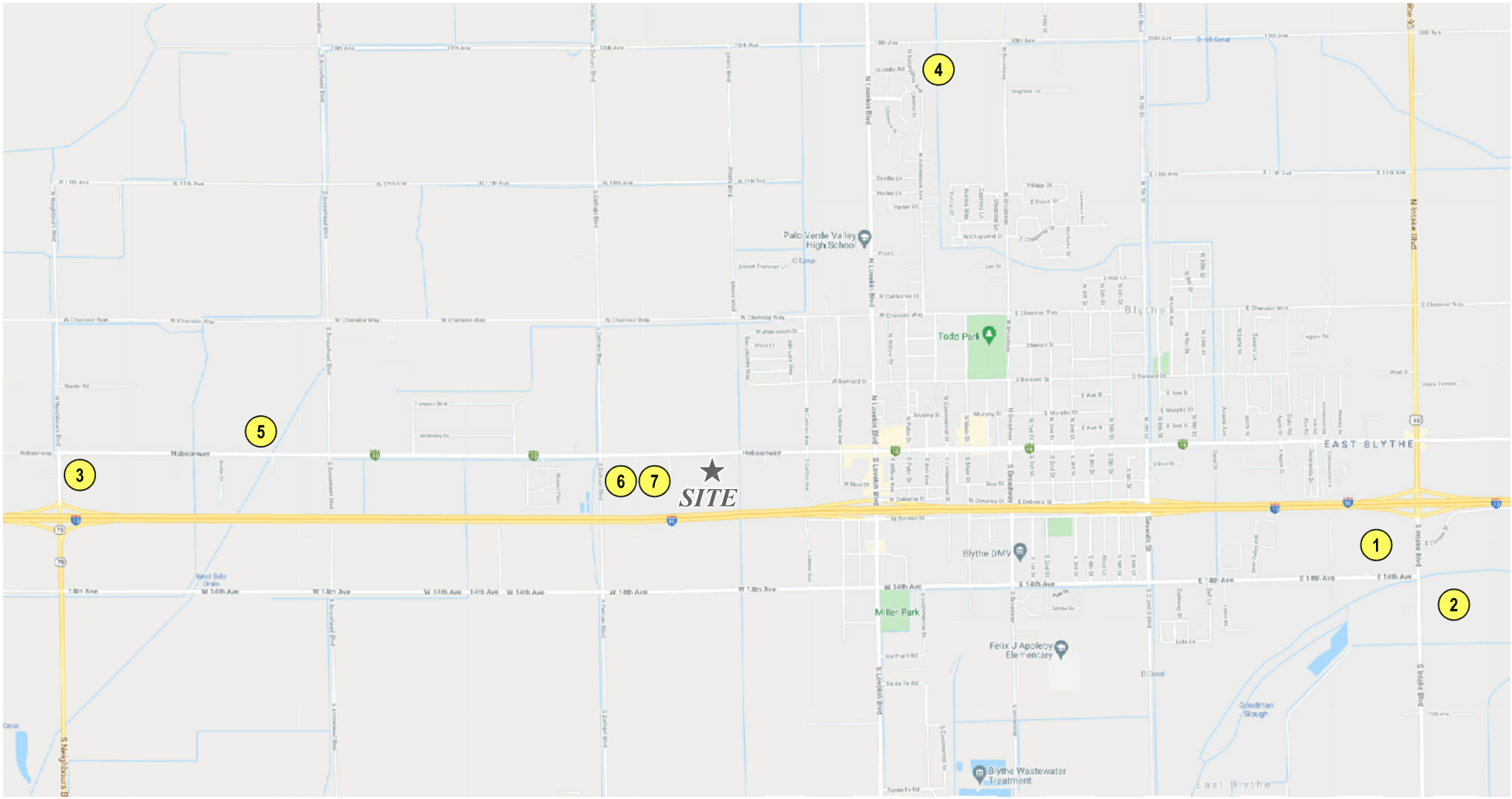


PM PEAK HOUR



N

EXHIBIT 4-3: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

(1) = CUMULATIVE DEVELOPMENT

N

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URBAN CROSSROADS

TABLE 4-2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

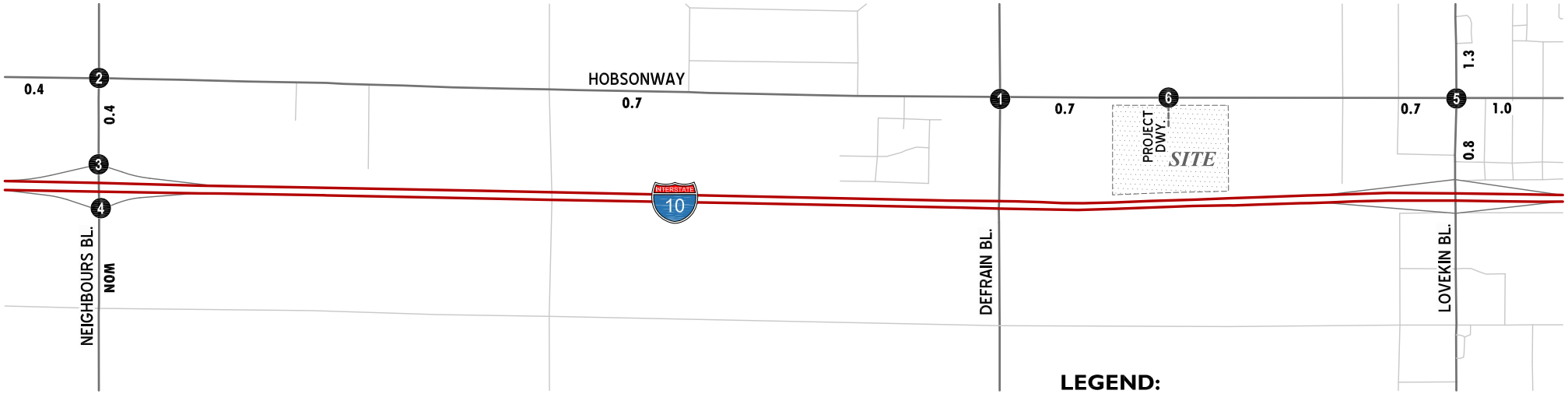
ID	Project Name	Land Use[1]	Quantity	Units[2]
1	Blythe Green Complex (NWC Intake Bl./14th Av.)	Manufacturing	54	EMP
		Distribution Center	15	EMP
		Administration/Office Bldg.	6.5	TSF
		Cultivation	592	EMP
		Marijuan Dispensary	5	TSF
2	Palo Verde Campus (SEC Intake Bl./14th Av.)	Manufacturing	54	EMP
		Administration/Office Bldg.	5.0	TSF
		Cultivation	768	EMP
3	Casablanca Farms (SEC Neighbours Bl./Hobsonway)	Administration/Office Bldg.	5.0	TSF
		Cultivation	24	EMP
4	Casa Bella (East of Lovekin Bl. & south of 10th Av.)	SFDR	130	DU
5	Blythe Ag-Gro I & II (2881 W. Hobsonway)	Administration/Office Bldg.	2.5	TSF
		Cultivation	24	EMP
6	Desert Comm Network (1790 W. Hobsonway)	Administration/Office Bldg.	1.0	TSF
		Cultivation	70	EMP
7	Desert Comm Network (SEC of Defrain Bl./Hobsonway)	Administration/Office Bldg.	5.0	TSF
		Cultivation	60	EMP

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; EMP = Employees

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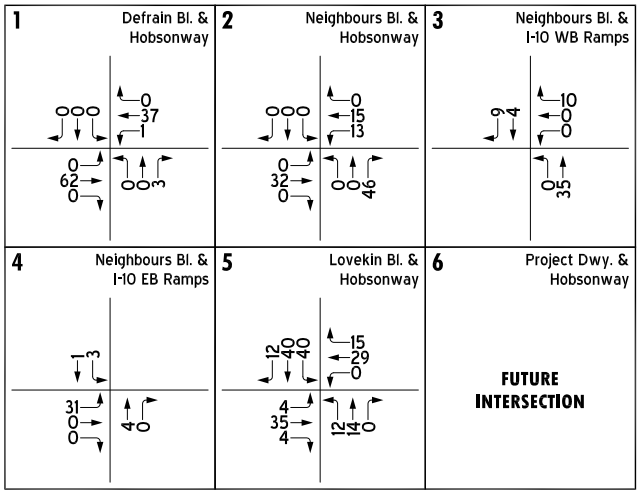
EXHIBIT 4-4: CUMULATIVE DEVELOPMENT ONLY TRAFFIC VOLUMES



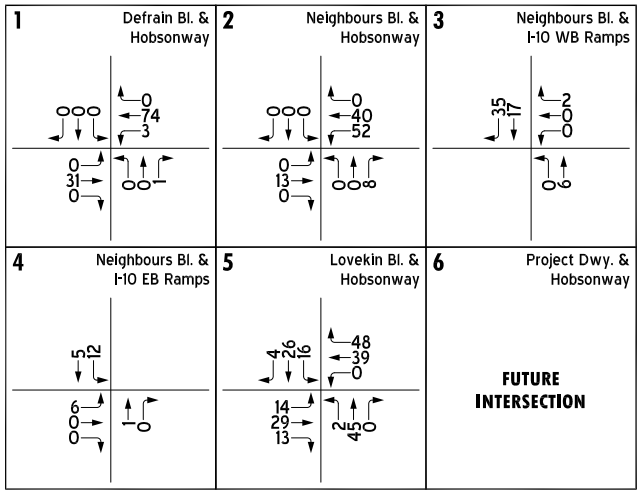
LEGEND:

- 6 = INTERSECTION ID
- = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)
- NOM = NOMINAL, LESS THAN 50 VEHICLES PER DAY

AM PEAK HOUR



PM PEAK HOUR



N

4.7 TRAFFIC FORECASTS

To provide a comprehensive assessment of potential transportation network deficiencies, "buildup" analysis was performed in support of this work effort. The "buildup" method was used to approximate Cumulative 5 Year (2026) Without Project and With Project traffic conditions, and is intended to identify the near-term deficiencies on both the existing and planned near-term circulation system.

4.8 NEAR-TERM CONDITIONS

The "buildup" approach combines existing traffic counts with a background ambient growth factor to forecast Cumulative 5 Year (2026) Without Project and With Project traffic conditions. An ambient growth factor of 10.408% accounts for background (area-wide) traffic increases that occur over time up to the year 2026 from the year 2021 (compounded 2 percent per year growth over a 5-year period). Traffic volumes generated by cumulative development projects are also included in the Cumulative 5 Year (2026) Without Project traffic conditions. Project traffic is added to assess Cumulative 5 Year (2026) With Project traffic conditions. The 2026 roadway network is similar to the existing conditions roadway network with the exception of future roadways and intersections proposed to be developed by the Project.

The near-term traffic analysis includes the following traffic conditions, with the various traffic components:

- Cumulative 5 Year (2026) Without Project
    - Existing 2021 volumes
    - Ambient growth traffic (10.408%)
    - Cumulative Development Project traffic
- Cumulative 5 Year (2026) With Project
    - Existing 2021 volumes
    - Ambient growth traffic (10.408%)
    - Cumulative Development Project traffic
    - Project traffic

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5 CUMULATIVE 5 YEAR (2026) CONDITIONS

This section discusses the traffic forecasts for Cumulative 5 Year (2026) Without Project and With Project conditions and the resulting intersection operations and traffic signal warrant analyses.

5.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for Cumulative 5 Year (2026) conditions are consistent with those shown previously on Exhibit 3-1, with the exception of Project driveways and those facilities assumed to be constructed by the Project to provide site access. Intersection and roadway improvements at the frontage and driveways of the cumulative projects are also assumed in place.

5.2 CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT CONDITIONS

The Cumulative 5 Year (2026) Without Project scenario includes existing traffic volumes, ambient growth (2% per year, total of 10.408% compounded over a 5-year period), and known cumulative projects. Exhibit 5-1 shows the ADT volumes which can be expected for Cumulative 5 Year (2026) Without Project conditions. Cumulative 5 Year (2026) Without Project weekday AM and weekday PM peak hour intersection turning movement volumes are also shown on Exhibit 5-1.

5.2.1 CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT INTERSECTION OPERATIONS ANALYSIS

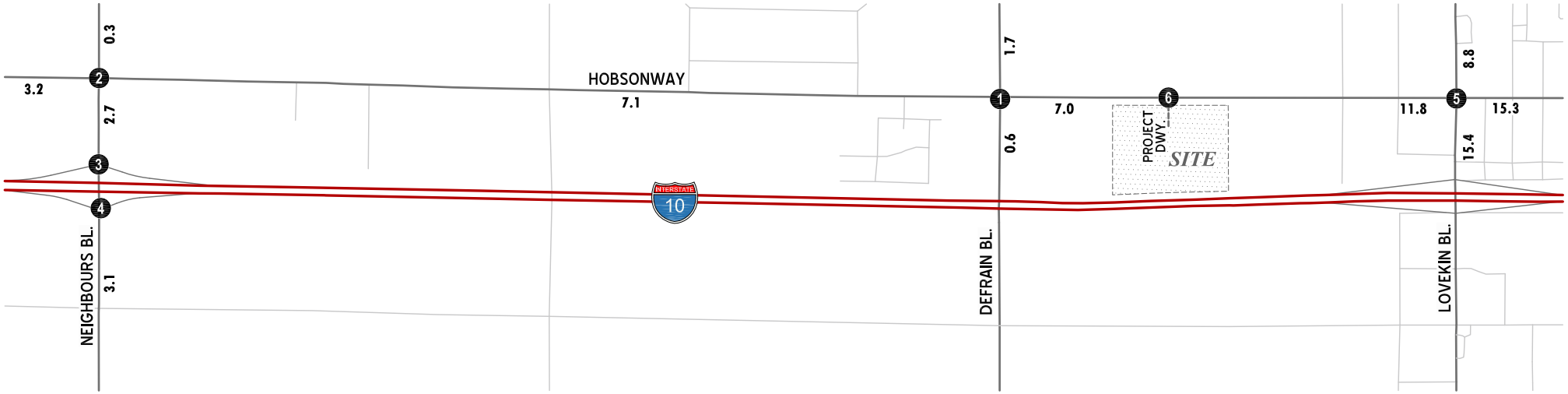
Cumulative 5 Year (2026) Without Project peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TS. Table 5-1 summarizes the Cumulative 5 Year (2026) Without Project intersection analysis results.

The intersection analysis results indicate that the study area intersections are anticipated to continue to operate at an acceptable LOS (LOS "D" or better) during the peak hours. The intersection operations analysis worksheets are included in Appendix 5.1 of this TS for Cumulative 5 Year (2026) Without Project traffic conditions.

5.2.2 CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT TRAFFIC SIGNAL WARRANTS ANALYSIS

For Cumulative 5 Year (2026) Without Project traffic conditions, the unsignalized study area intersections are not anticipated to warrant a traffic signal (see Appendix 3.3).

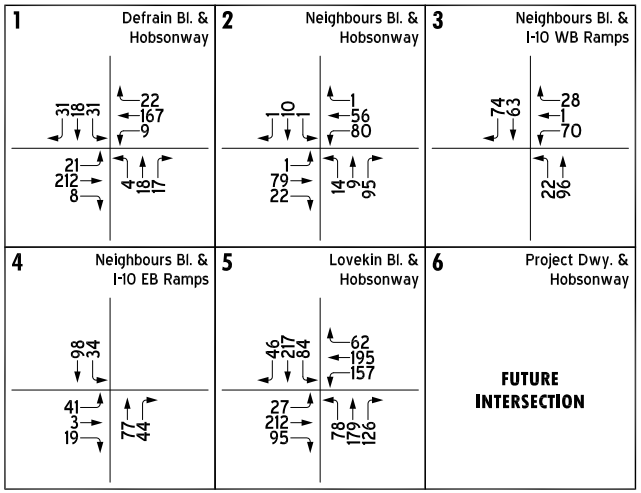
EXHIBIT 5-1: CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT TRAFFIC VOLUMES



LEGEND:

- ⑥ = INTERSECTION ID
- - - - = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR

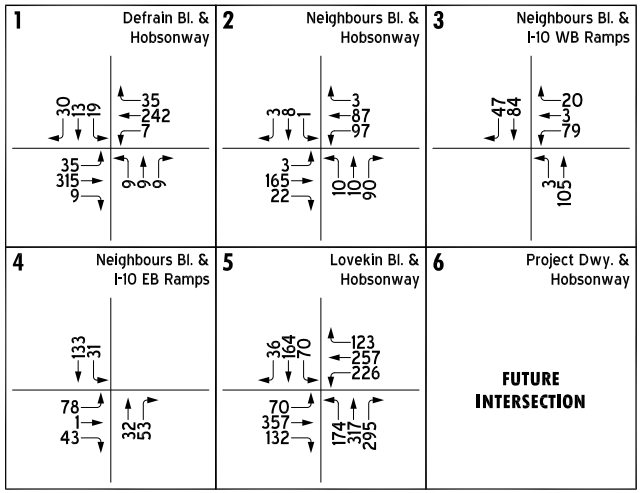


TABLE 5-1: INTERSECTION ANALYSIS
FOR CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Defrain Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.2	15.8	B	C
2	Neighbours Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	11.9	13.0	B	B
3	Neighbours Bl. / I-10 WB Ramps	CSS	0.5	0.5	0	0	1	1	0	0	0	0.5	0.5	1	10.5	10.7	B	B
4	Neighbours Bl. / I-10 EB Ramps	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	10.7	12.1	B	B
5	Lovekin Bl. / Hobsonway	TS	1	2	0	1	2	0	1	2	0	1	2	0	33.6	42.1	C	D
6	Project Dwy. / Hobsonway		Intersection Does Not Exist															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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5.3 CUMULATIVE 5 YEAR (2026) WITH PROJECT CONDITIONS

For Cumulative 5 Year (2026) With Project scenario, Project traffic has been added to Cumulative 5-Year (2026) Without Project traffic conditions. Exhibit 5-2 shows the ADT volumes which can be expected for Cumulative 5 Year (2026) With Project conditions. Cumulative 5 Year (2026) With Project weekday AM and weekday PM peak hour intersection turning movement volumes are also shown on Exhibit 5-2.

5.3.1 CUMULATIVE 5 YEAR (2026) WITH PROJECT INTERSECTION OPERATIONS ANALYSIS

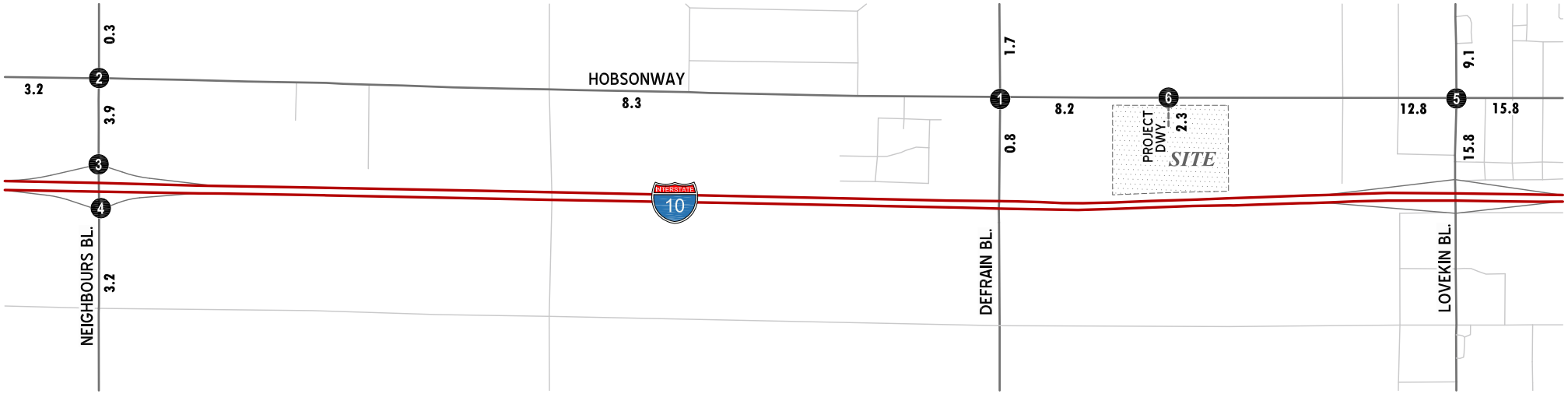
Cumulative 5 Year (2026) With Project peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TS. Table 5-2 summarizes the Cumulative 5 Year (2026) With Project intersection analysis results.

The intersection analysis results indicate that the addition of Project traffic is not anticipated to result in LOS deficiencies during the peak hours. The intersection operations analysis worksheets are included in Appendix 5.2 of this TS for Cumulative 5 Year (2026) With Project traffic conditions.

5.3.2 CUMULATIVE 5 YEAR (2026) WITH PROJECT TRAFFIC SIGNAL WARRANTS ANALYSIS

For Cumulative 5 Year (2026) With Project traffic conditions, the unsignalized study area intersections are not anticipated to warrant a traffic signal (see Appendix 3.3).

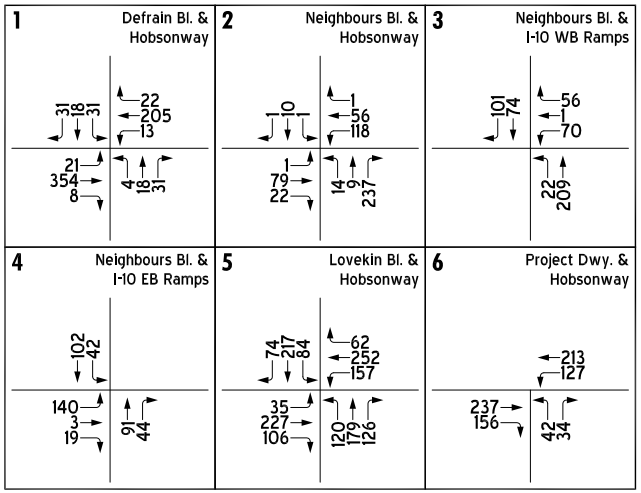
EXHIBIT 5-2: CUMULATIVE 5 YEAR (2026) WITH PROJECT TRAFFIC VOLUMES



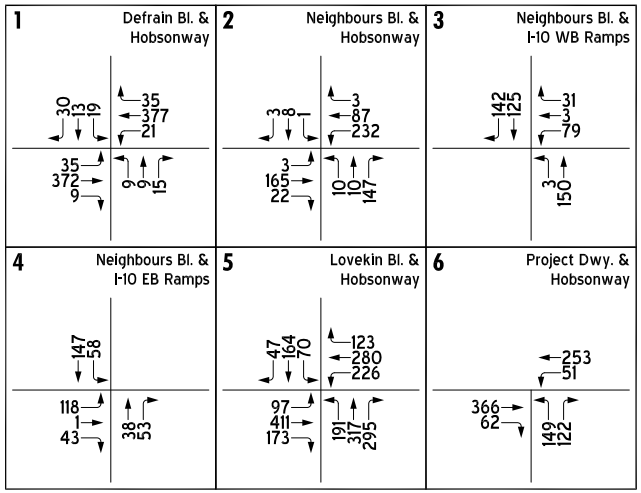
LEGEND:

- 6 = INTERSECTION ID
- - - - = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR



N

TABLE 5-2: INTERSECTION ANALYSIS
FOR CUMULATIVE 5 YEAR (2026) WITH PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Defrain Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	16.5	20.5	C	C
2	Neighbours Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.2	18.5	B	C
3	Neighbours Bl. / I-10 WB Ramps	CSS	0.5	0.5	0	0	1	1	0	0	0	0.5	0.5	1	11.9	11.8	B	B
4	Neighbours Bl. / I-10 EB Ramps	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	12.5	15.4	B	C
5	Lovekin Bl. / Hobsonway	TS	1	2	0	1	2	0	1	2	0	1	2	0	33.6	43.2	C	D
6	Project Dwy. / Hobsonway	**CSS**	0	**1!**	0	0	0	0	0	1	0	0.5	0.5	0	17.2	30.5	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane; **1** = Lane Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

[3] TS = Traffic Signal; CSS = Cross-street Stop

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5.4 SITE ACCESS IMPROVEMENTS

For the purpose of this report, the following site access improvements and project driveway configurations are anticipated to be in place for with Project conditions. Recommended access improvements are presented previously on Exhibits 1-3:

Hobsonway – Hobsonway is an east-west oriented roadway located along the Project's northern boundary. Construct Hobsonway from the Project's westerly boundary to the Project's easterly boundary at its ultimate half-section width as a Major Arterial Collector (96-foot right-of-way) in compliance with the applicable City of Blythe standards.

Project Driveway / Hobsonway (#6) – Install a stop control on the northbound approach and construct one shared left/right turn lane as illustrated on Exhibit 1-3.

On-site traffic signing and striping should be implemented in conjunction with detailed construction plans for the Project site.

Sight distance at the primary access point should be reviewed with respect to standard Caltrans and City of Blythe sight distance standards at the time of preparation of final grading, landscape and street improvement plans.

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6 GENERAL PLAN (2040) CONDITIONS

This section discusses the methods used to develop General Plan Buildout (2040) traffic forecasts, and the resulting intersection operations and roadway segment operations analyses.

6.1 ROADWAY IMPROVEMENTS

The lane configurations and traffic controls assumed to be in place for General Plan (2040) traffic conditions are consistent with those shown on Exhibit 3-1, in conjunction with other long-range City roadway facilities that would be likely be in place by General Plan Buildout (2040) traffic conditions.

6.2 GENERAL PLAN (2040) WITHOUT PROJECT CONDITIONS

Future General Plan Buildout 2040 traffic projections were derived from the Riverside County Transportation Analysis Model (RivTAM). Adjustments have been made to the long-range traffic forecasts where the volumes are lower than the current (2021) baseline condition. Exhibit 6-1 shows the ADT volumes which can be expected for General Plan (2040) Without Project conditions. General Plan (2040) Without Project weekday AM and weekday PM peak hour intersection turning movement volumes are also shown on Exhibit 6-1.

6.2.1 GENERAL PLAN (2040) WITHOUT PROJECT INTERSECTION OPERATIONS ANALYSIS

General Plan (2040) Without Project peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TS. Table 6-1 summarizes the General Plan (2040) Without Project intersection analysis results.

The intersection analysis results indicate that the study area intersections are anticipated to continue to operate at an acceptable LOS (LOS "D" or better) during the peak hours with the exception of the following two (2) intersections:

- #3 - Neighbours Boulevard / I-10 WB Ramps
- #4 - Neighbours Boulevard / I-10 EB Ramps

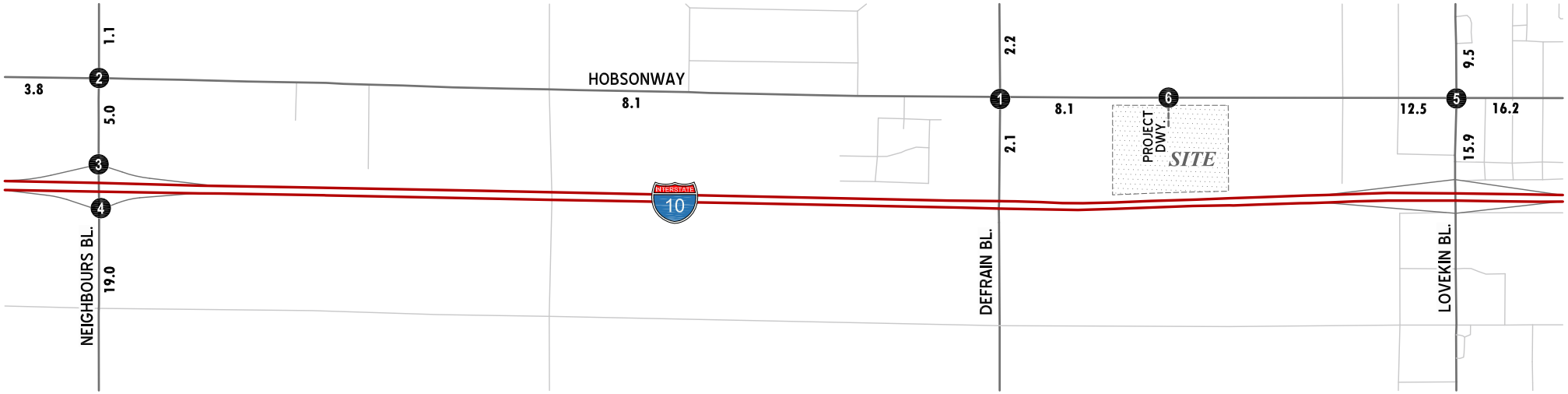
As shown in Table 6-1 and illustrated on Exhibit 6-3, the two deficient intersections are anticipated to operate at an acceptable LOS (LOS "D or better) with the installation of traffic signals and turn lane improvements.

The intersection operations analysis worksheets are included in Appendix 6.1 of this TS for General Plan (2040) Without Project traffic conditions.

6.2.2 GENERAL PLAN (2040) WITHOUT PROJECT TRAFFIC SIGNAL WARRANTS ANALYSIS

For General Plan (2040) Without Project traffic conditions, the two deficient unsignalized study area intersections (#3 – Neighbours Bl./I-10 WB Ramps and #4 – Neighbours Bl./I-10 EB Ramps) are anticipated to warrant a traffic signal (see Appendix 3.3).

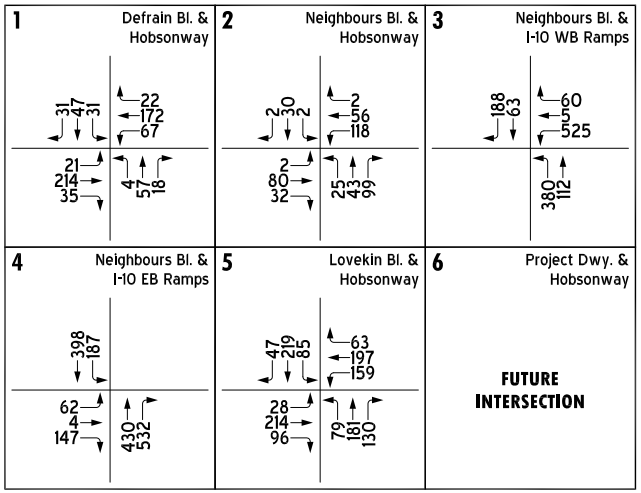
EXHIBIT 6-1: GENERAL PLAN (2040) WITHOUT PROJECT TRAFFIC VOLUMES



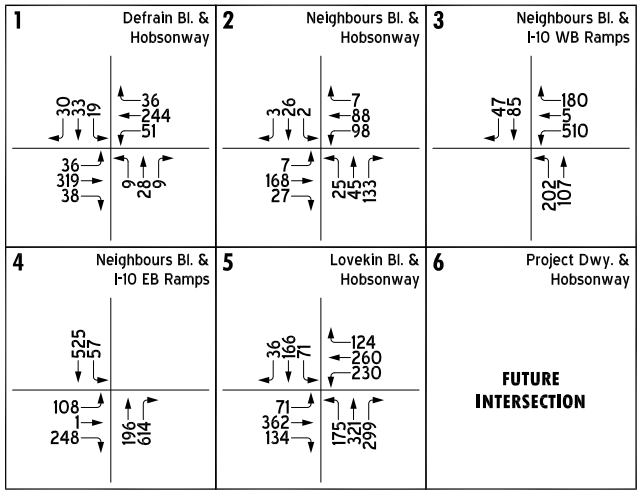
LEGEND:

- 6 = INTERSECTION ID
- - - - = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR



N

TABLE 6-1: INTERSECTION ANALYSIS
FOR GENERAL PLAN (2040) WITHOUT PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Defrain Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	19.0	21.3	C	C
2	Neighbours Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	13.7	14.8	B	B
3	Neighbours Bl. / I-10 WB Ramps	CSS	0.5	0.5	0	0	1	1	0	0	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	0	1	1	0	0	0	**1**	1	0	47.2	39.5	D	D
4	Neighbours Bl. / I-10 EB Ramps	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	**>80**	**>80**	**F**	**F**
	- With Improvements	**TS**	0	1	1	**1**	1	0	0.5	0.5	1	0	0	0	18.8	38.8	B	D
5	Lovekin Bl. / Hobsonway	TS	1	2	0	1	2	0	1	2	0	1	2	0	33.8	42.6	C	D
6	Project Dwy. / Hobsonway		Intersection Does Not Exist															

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[3] TS = Traffic Signal; CSS = Cross-street Stop

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6.3 GENERAL PLAN (2040) WITH PROJECT CONDITIONS

In order to provide a conservative analysis, the proposed Project has been added to the General Plan Buildout 2040 Without Project conditions. The ADT and AM and PM peak hour traffic volumes which can be expected for General Plan (2040) With Project traffic conditions are shown on Exhibit 6-2.

6.3.1 GENERAL PLAN (2040) WITH PROJECT INTERSECTION OPERATIONS ANALYSIS

General Plan (2040) With Project peak hour traffic operations have been evaluated for the study area intersections based on the analysis methodologies presented in Section 2 *Methodologies* of this TS. Table 6-2 summarizes the General Plan (2040) With Project intersection analysis results.

The intersection analysis results indicate that the addition of Project traffic is not anticipated to result in new LOS deficiencies during the peak hours, in addition to the two intersections (#3 – Neighbours Bl./I-10 WB Ramps & #4 – Neighbours Bl./I-10 EB Ramps) previously identified under General Plan (2040) Without Project conditions. The intersection operations analysis worksheets are included in Appendix 5.2 of this TS for General Plan (2040) With Project traffic conditions.

6.3.2 GENERAL PLAN (2040) WITH PROJECT TRAFFIC SIGNAL WARRANTS ANALYSIS

For General Plan (2040) With Project traffic conditions, the intersection of Project Driveway/Hobsonway (#6) is anticipated to warrant a traffic signal, in addition to the ones previously identified under General Plan (2040) Without Project conditions (see Appendix 3.3). It should be noted that the Project Driveway/Hobsonway (#6) is projected to operate at an acceptable level of service (LOS "D" or better) without a traffic signal and meeting signal warrant conditions does not automatically require a traffic signal be installed.

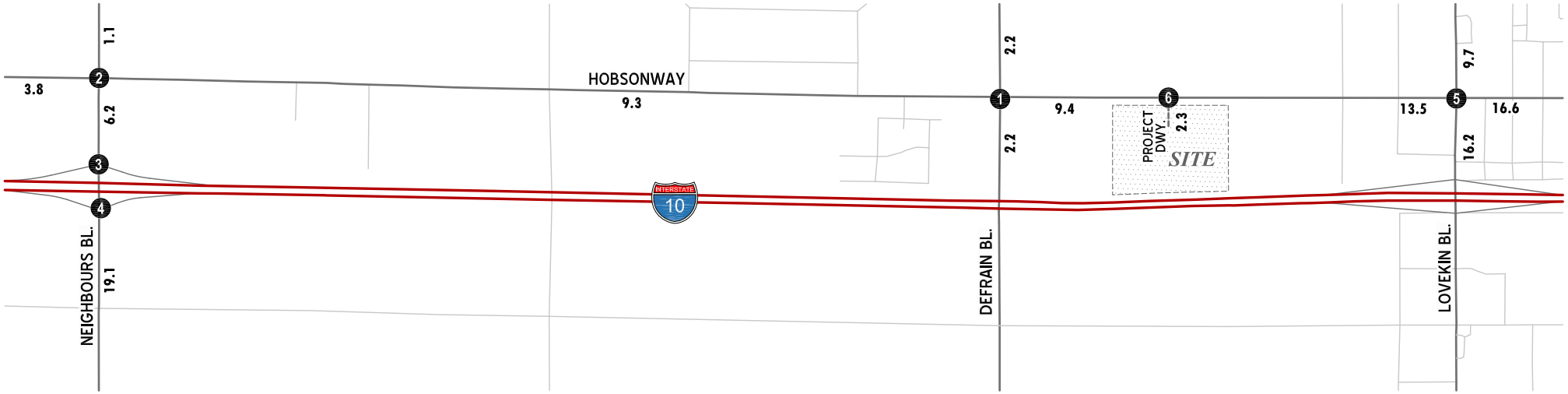
6.4 RECOMMENDED IMPROVEMENTS

As shown previously on Tables 6-1 and 6-2, the intersections of Neighbours Boulevard / I-10 WB Ramps (#3) and Neighbours Boulevard / I-10 EB Ramps (#4) are anticipated to operate at an unacceptable LOS (LOS E or worse) during the peak hours for General Plan (2040) Without Project and With Project conditions. Both deficient intersections are projected to meet traffic signal warrants for General Plan (2040) Without Project conditions. The following recommendations for General Plan (2040) Without and With Project conditions are anticipated to improve the deficient intersections to operate at an acceptable LOS (LOS "D" or better):

Neighbours Boulevard / I-10 WB Ramps (#3) – The Project should contribute on a fair share basis to the following off-site improvements, as illustrated on Exhibit 6-3:

- Install a traffic signal
- Project to contribute to the addition of one northbound left turn lane.
- Project to contribute in modifying the westbound approach to provide a dedicated left turn lane and one shared through/right turn lane.

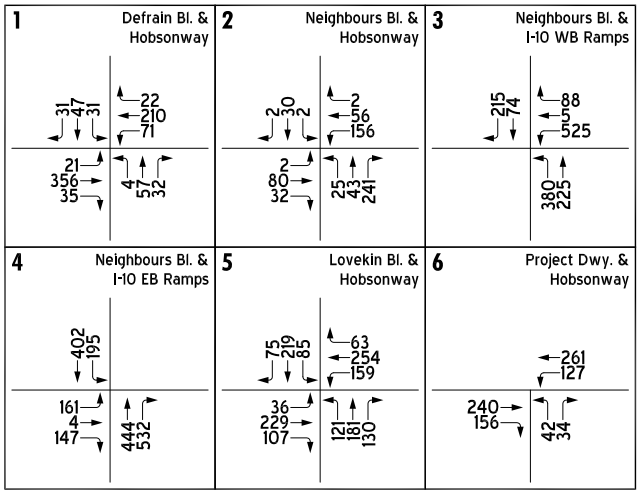
EXHIBIT 6-2: GENERAL PLAN (2040) WITH PROJECT TRAFFIC VOLUMES



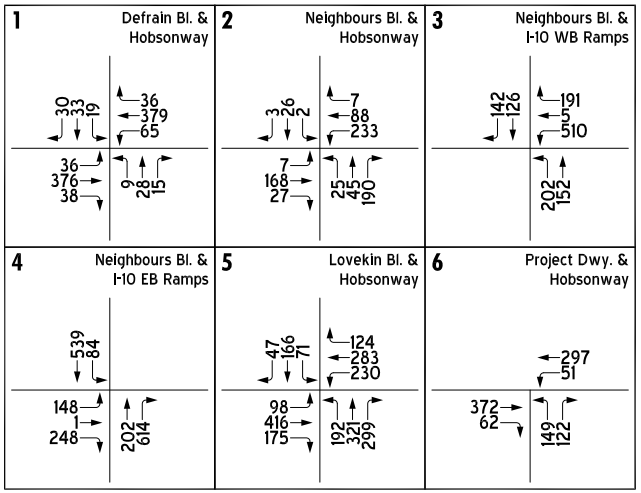
LEGEND:

- 6 = INTERSECTION ID
- - - - = FUTURE PROJECT DRIVEWAY
- 10.0 = VEHICLES PER DAY (1000'S)

AM PEAK HOUR



PM PEAK HOUR



N

TABLE 6-2: INTERSECTION ANALYSIS
FOR GENERAL PLAN (2040) WITH PROJECT CONDITIONS

#	Intersection	Traffic Control[3]	Intersection Approach Lanes[1]												Delay[2] (Secs)		Level of Service[2]	
			Northbound			Southbound			Eastbound			Westbound						
			L	T	R	L	T	R	L	T	R	L	T	R	AM	PM	AM	PM
1	Defrain Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	28.3	33.7	D	D
2	Neighbours Bl. / Hobsonway	CSS	0	1!	0	0	1!	0	0	1!	0	0	1!	0	15.5	23.6	C	C
3	Neighbours Bl. / I-10 WB Ramps	CSS	0.5	0.5	0	0	1	1	0	0	0	0.5	0.5	1	**>80**	**>80**	**F**	**F**
	- With Improvements	**TS**	**1**	1	0	0	1	1	0	0	0	**1**	1	0	41.3	38.1	D	D
4	Neighbours Bl. / I-10 EB Ramps	CSS	0	1	1	0.5	0.5	0	0.5	0.5	1	0	0	0	**>80**	**>80**	**F**	**F**
	- With Improvements	**TS**	0	1	1	**1**	1	0	0.5	0.5	1	0	0	0	21.2	44.3	C	D
5	Lovekin Bl. / Hobsonway	TS	1	2	0	1	2	0	1	2	0	1	2	0	36.2	43.7	D	D
6	Project Dwy. / Hobsonway	**CSS**	0	**1!**	0	0	0	0	0	1	0	0.5	0.5	0	18.2	34.7	C	D

[1] When a right turn is designated, the lane can either be striped or unstriped. To function as a right turn lane there must be sufficient width for right turning vehicles to travel outside the through lanes.

L = Left; T = Through; R = Right; 1! = Shared Left/Through/Right Lane; 0.5 = Shared Lane; **1** = Improvement

[2] Per the Highway Capacity Manual 6th Edition (HCM6), overall average intersection delay and level of service are shown for intersections with a traffic signal or all way stop control. For intersections with cross street stop control, the delay and level of service for the worst individual movement (or movements sharing a single lane) are shown. Delay and level of service is calculated using Synchro 11 analysis software.

BOLD = LOS does not meet the applicable jurisdictional requirements (i.e., unacceptable LOS).

[3] TS = Traffic Signal; CSS = Cross-street Stop

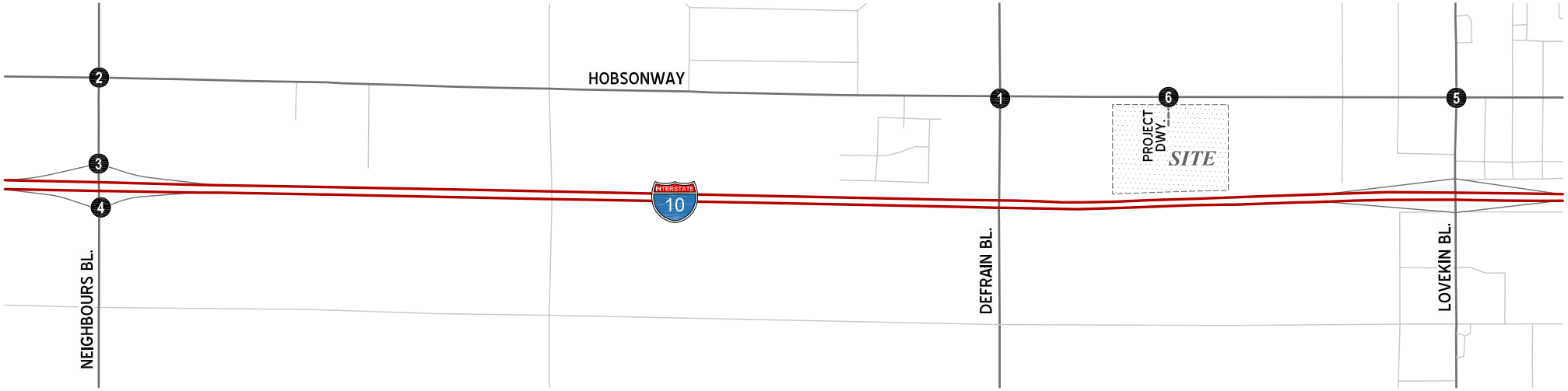
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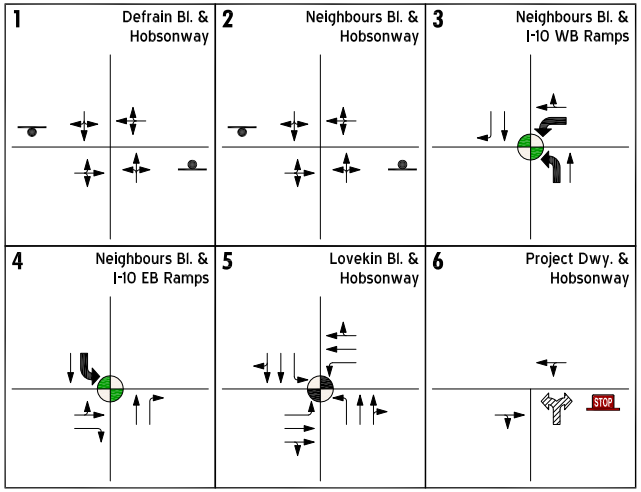
Neighbours Boulevard / I-10 EB Ramps (#4) – The Project should contribute on a fair share basis to the following off-site improvements, as illustrated on Exhibit 6-3:

- Install a traffic signal
- Project to contribute to the addition of one southbound left turn lane.
- Project to contribute in modifying the westbound approach to provide a dedicated left turn lane and one shared through/right turn lane.

For With Project conditions, the improvements shown on Exhibit 6-3 at the intersection of Project Driveway/Hobsonway (#6) intersection, are consistent with the improvements identified previously under Cumulative 5 Year (2026) With Project conditions which includes providing a stop control on the northbound approach and providing one shared northbound left/right turn lane.

EXHIBIT 6-3: GENERAL PLAN (2040) WITHOUT AND WITH PROJECT RECOMMENDED IMPROVEMENTS





LEGEND:

- 6 = INTERSECTION ID
- = EXISTING TRAFFIC SIGNAL
- = FUTURE TRAFFIC SIGNAL
- = EXISTING STOP SIGN
- STOP = FUTURE STOP SIGN (WITH PROJECT ONLY)
- = EXISTING LANE
- = LANE IMPROVEMENT (OFF-SITE)
- = LANE IMPROVEMENT (WITH PROJECT ONLY)
- = FUTURE ROADWAY

N

14135 - 01.dwg

URBAN CROSSROADS

7 REFERENCES

1. **Riverside County Transportation Department.** *Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.

2. **Institute of Transportation Engineers.** *Trip Generation.* 10th Edition. 2017.

3. **Transportation Research Board.** *Highway Capacity Manual (HCM).* s.l. : National Academy of Sciences, 6th Edition.

4. **Federal Highway Administration.** Manual on Uniform Traffic Control Devices (MUTCD). [book auth.] California Department of Transportation. *California Manual on Uniform Traffic Control Devices (CAMUTCD).* 2014.

5. **Southern California Association of Governments.** *2016 Regional Transportation Plan / Sustainable Communities Strategy.* April 2016.

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APPENDIX 1.1:

TRAFFIC STUDY SCOPING AGREEMENT

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URBAN CROSSROADS

urbanxroads.com

June 10, 2021

Ms. Mallory Crecelius
City of Blythe
235 N. Broadway
Blythe, CA 92225

SUBJECT: HOBSONWAY CANNABIS TRANSPORTATION IMPACT STUDIES –SCOPING AGREEMENT

Dear Ms. Mallory Crecelius:

Urban Crossroads, Inc. is pleased to submit this scoping letter to City of Blythe regarding the Transportation Impact Studies for the proposed Hobsonway Cannabis ("Project"), which is located south of Hobsonway and east of Defrain Boulevard in the City of Blythe.

It is our understanding that the Project is to consist of 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration/office building uses.

This letter describes the draft proposed project trip generation, trip distribution, and analysis methodology, which have been used to establish the draft proposed project study area and analysis locations.

The site plan for the proposed Project is shown on Exhibit 1. Exhibit 2 depicts the proposed intersection analysis locations for this analysis. It is anticipated that the Project would be developed and fully occupied by 2026. Access to the Project will be provided directly to Hobsonway.

PROJECT CONTEXT

The City of Blythe General Plan Circulation Element, truck routes, and roadway cross-sections are presented on Exhibits 3 to 5, respectively. As shown on Exhibit 3, the study area roadways are classified as follows:

- Hobsonway is an arterial roadway west of Defrain Boulevard and classified as a major arterial roadway east of Defrain Boulevard, within the study area.
- Neighbours Boulevard is a collector roadway north of I-10 freeway ramps and becomes a local roadway south of I-10 freeway ramps.
- Defrain Boulevard is classified as a local collector.
- Lovekin Boulevard is classified as an Arterial Roadway within the study area.

Hobsonway and Neighbours Boulevard are identified as truck routes as shown in Exhibit 4.

TRIP GENERATION

In order to develop the traffic characteristics of the proposed project, trip-generation statistics published in the Institute of Transportation Engineers (ITE) *Trip Generation* (10th Edition, 2017) manual for the proposed land uses were used. For offices within the Project, ITE code 715 - single use office building rates are applied. For Processing and Cultivation building areas, ITE code 140 – manufacturing rates are utilized to estimate employment commute trips and product distribution.

Table 1 presents the trip generation rates and the resulting trip generation summary for the proposed Project.

As shown in Table 1, the Project is anticipated to generate a total of 2,279 trip-ends per day with 359 AM peak hour trips and 383 PM peak hour trips.

TRIP DISTRIBUTION AND ASSIGNMENT

The trip distribution pattern is heavily influenced by the geographical location of the site, the location of surrounding uses, truck routes, and proximity to freeway interchanges. Exhibit 6 displays the estimated Project trip distribution pattern. The resulting morning and evening peak hour traffic volumes associated with the Project are shown on Exhibit 7.

ANALYSIS SCENARIOS

This scoping agreement has been prepared based in accordance with the County of Riverside's Transportation Analysis Guidelines for Level of Service & Vehicle Miles Traveled (December 2020) as the City of Blythe does not have its own LOS/VMT analysis guidelines. Consistent with the County's TIA guidelines, intersection analysis will be provided for the following analysis scenarios:

- Existing (2021) Conditions
- Cumulative 5 Year (2026) without Project Conditions
- Cumulative 5 Year (2026) with Project Conditions
- General Plan (2040) without Project Conditions
- General Plan (2040) with Project Conditions

Cumulative 5 Year (2026) with Project and General Plan (2040) with Project Conditions will be utilized to determine the Project's access improvement requirements and participation in off-site improvements (subject to payment of fees/fair share).

LEVEL OF SERVICE (LOS) CRITERIA

The City of Blythe has established LOS D and/or a maximum volume to capacity ratio of 0.90 is as the provisionally acceptable LOS for its intersections. Therefore, any intersection operating at LOS E or F

and/or with a volume to capacity ratio greater than 0.90 will be considered deficient for the purposes of this analysis.

THRESHOLDS OF SIGNIFICANCE – INTERSECTIONS

The following thresholds of significance will be applied to study area intersections to identify significant impacts:

- If an intersection is projected to operate at an acceptable level of service (i.e., LOS D or better) under Existing traffic conditions and the addition of project traffic is expected to cause the intersection to operate at an unacceptable level of service (i.e., LOS E or F), the impact is considered significant;
- If an intersection is projected to operate at LOS E or LOS F under Existing traffic conditions, and measurable project traffic is added, the impact is cumulatively considerable (subject to payment of fees/fair share).

AMBIENT GROWTH

Consistent with other studies performed in the area, an ambient growth rate of 2% per year is proposed for the study area intersections to approximate background traffic growth not identified by nearby cumulative development projects. The rate will be compounded over a 5-year period (i.e., 1.02^{5years} = 1.10408 or 10.408%) for Cumulative 5 year (2026) conditions.

CUMULATIVE DEVELOPMENT TRAFFIC

We request that City staff review the list of cumulative development projects (shown on Exhibit 8 and listed on Table 2) for inclusion in the traffic study.

EXISTING 2021 VOLUME ESTIMATES

New traffic counts will be collected on June 2021 during the following timeframes: 7:00 AM to 9:00 AM and 4:00 PM to 6:00 PM. Due to the COVID-19 pandemic, these new 2021 peak hour counts are anticipated to be lower than typical conditions. Based upon recent Coachella Valley traffic analyses, a 33% increase will be applied to the raw June 2021 counts to estimate for "typical/non-COVID-19" 2021 conditions. Counts taken during the month of June will also be increased by 15% in order to estimate peak season conditions.

GENERAL PLAN BUILDOUT TRAFFIC

Future horizon year 2040 traffic projections will be derived from the Riverside County Transportation Analysis Model (RivTAM). General plan buildout traffic volumes from RivTAM will be adjusted as necessary to achieve flow conservation, ensure that the volume projections include reasonable growth over the estimated 2021 "typical/non-COVID-19" traffic volumes, and reasonable diversion between parallel routes.

FAIR SHARE CALCULATION METHODOLOGY

Improvements found to be included in the City of Blythe's Development Impact Fee (DIF) program and Coachella Valley Association of Governments (CVAG) Transportation Uniform Mitigation Fee (TUMF) will be identified as such. For improvements that do not appear to be in either of the pre-existing fee programs, a fair share financial contribution based on the Project's fair share impact may be imposed in order to mitigate the Project's share of impacts in lieu of construction.

If the intersection is currently operating at deficient LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to total traffic:

Project Fair Share % = Project Traffic / Cumulative 5 Year with Project Total Traffic

If the intersection is currently operating at acceptable LOS under Existing traffic conditions, the Project's fair share cost of improvements would be determined based on the following equation, which is the ratio of Project traffic to new traffic, where new traffic is total future traffic less existing baseline traffic:

Project Fair Share % = Project Traffic / (Cumulative 5 Year with Project Total Traffic – Existing Traffic)

VEHICLE MILES TRAVELED (VMT)

A VMT screening assessment will be prepared under separate cover in accordance with SB743 and consistent with the methodology and thresholds outlined in the County of Riverside's December 2020 VMT methodology guidelines.

If necessary, Urban Crossroads, Inc. will estimate VMT for the project based on the RIVTAM base year model. The VMT for the Project TAZ will be compared to the City threshold. If the Project TAZ generates VMT that is in excess of the City's average VMT rate, then determine if feasible mitigation can reduce Project TAZ VMT to the same or below the City average VMT rate.

Please review this scoping agreement and let us know if it is acceptable, or if the City requests any changes to this proposed scope of work. If you have any questions, please contact John Kain at (949) 375-2435 or Marlie Whiteman (714) 585-0574.

Respectfully submitted,

URBAN CROSSROADS, INC.

John Kain

John Kain, AICP
Principal

Marlie Whiteman

Marlie Whiteman, PE
Senior Associate

Attachments

EXHIBIT 1: SITE PLAN

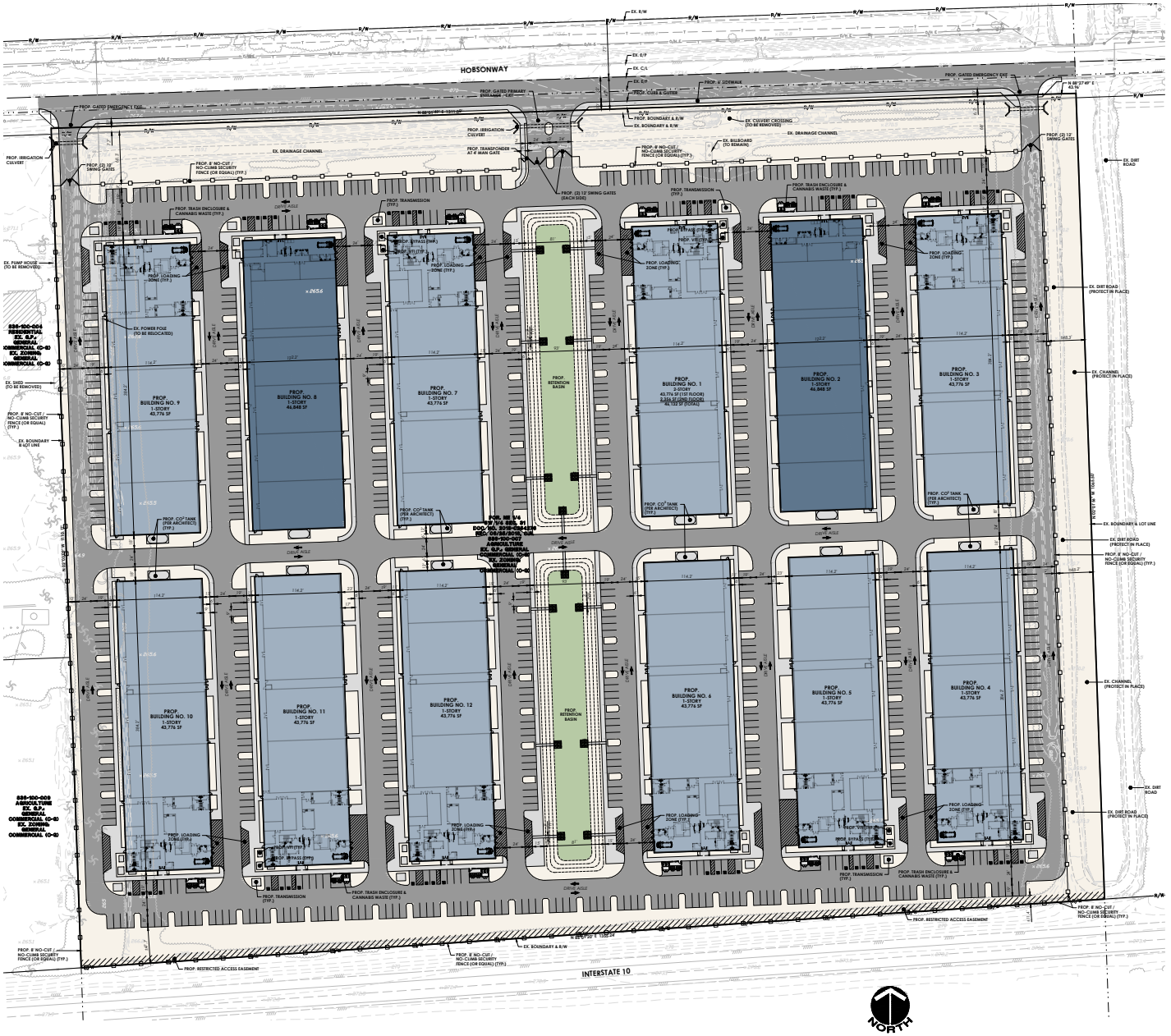


EXHIBIT 2: STUDY AREA

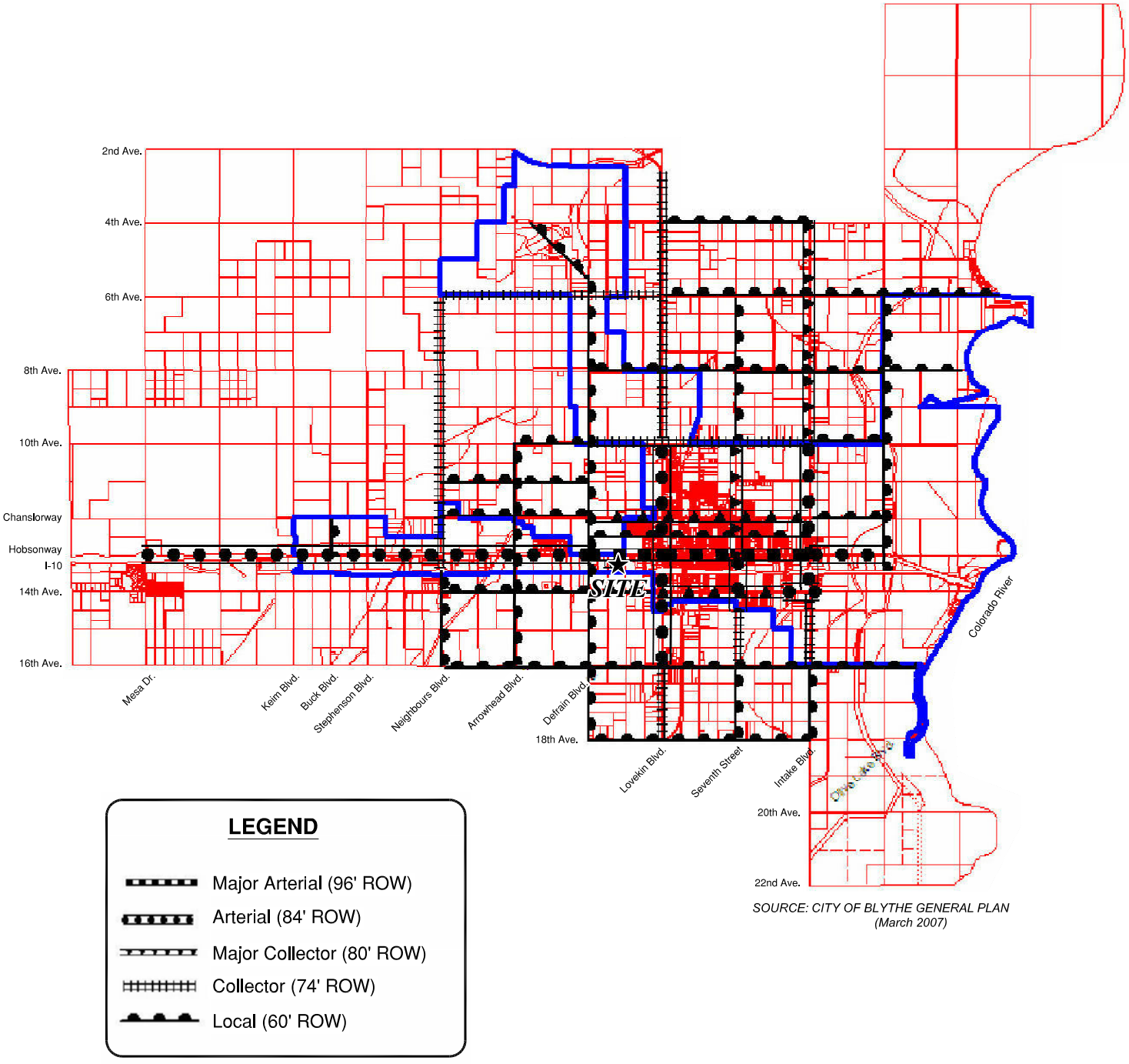


LEGEND:

5 = EXISTING ANALYSIS LOCATION
(1) = FUTURE ANALYSIS LOCATION
= FUTURE DRIVEWAY

N

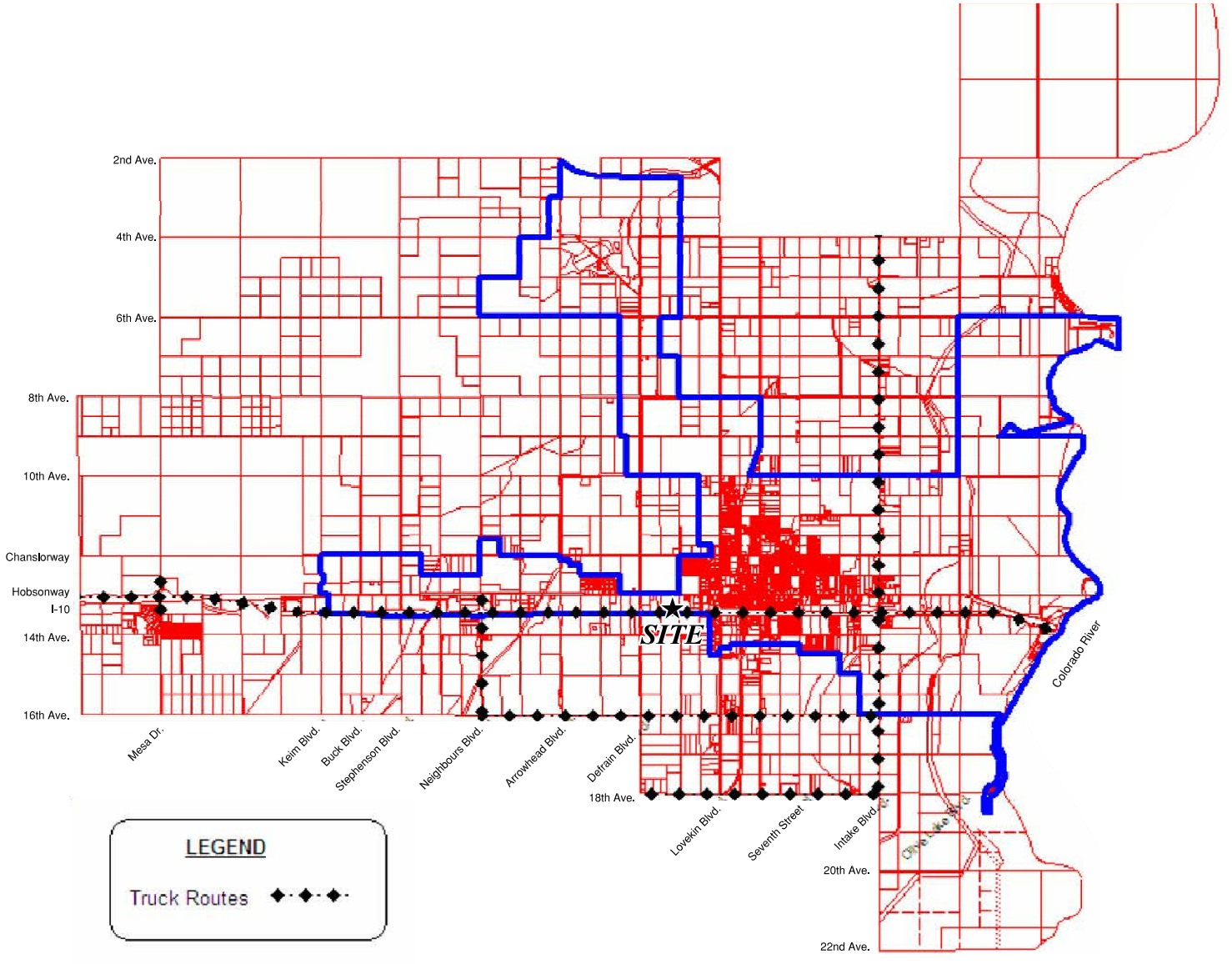
EXHIBIT 3: CITY OF BLYTHE GENERAL PLAN CIRCULATION ELEMENT



SOURCE: CITY OF BLYTHE GENERAL PLAN (March 2007)

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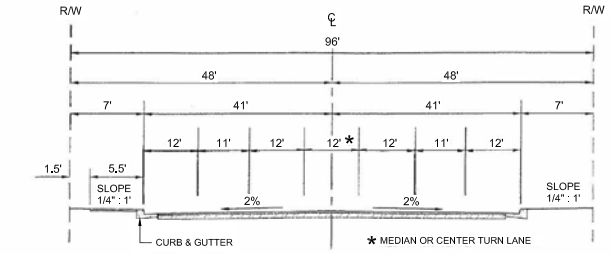
EXHIBIT 4: CITY OF BLYTHE TRUCK ROUTES



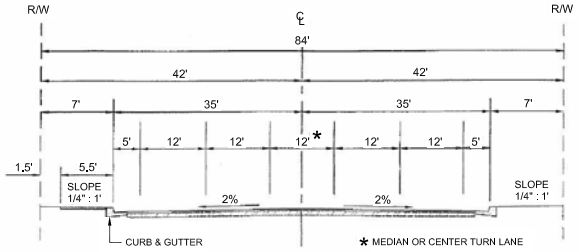
SOURCE: CITY OF BLYTHE GENERAL PLAN (March 2007)

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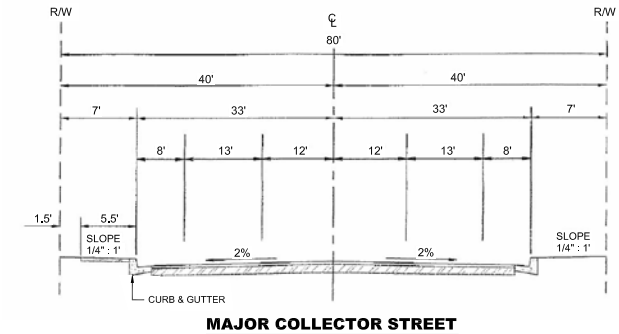
EXHIBIT 5: CITY OF BLYTHE GENERAL PLAN ROADWAY CROSS-SECTIONS



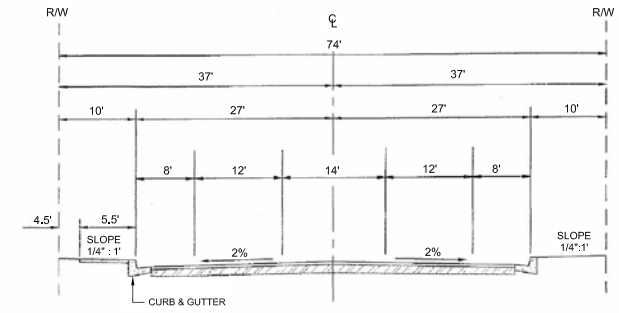
MAJOR ARTERIAL STREET
(4 LANES, WITH PARKING)



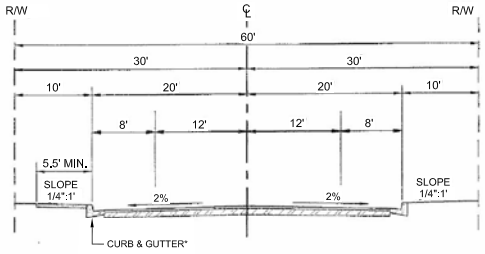
ARTERIAL STREET
(4 LANES, DIVIDED OR TURN LANE, NO PARKING)



MAJOR COLLECTOR STREET
(4 LANES WITH PARKING)



COLLECTOR STREET
(2 LANES WITH PARKING)



LOCAL STREET
(WITH PARKING)

SOURCE: CITY OF BLYTHE

TABLE 1: PROJECT TRIP GENERATION SUMMARY

Trip Generation Rates[1]									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Processing & Cultivation (Manfacturing)	140	509.103 TSF	0.48	0.14	0.62	0.21	0.46	0.67	3.93
Administration / Office Building	715	24.709 TSF	1.58	0.20	1.78	0.26	1.45	1.71	11.25

Trip Generation Results									
			AM Peak Hour			PM Peak Hour			
Land Use	ITE LU Code	Quantity[2]	In	Out	Total	In	Out	Total	Daily
Processing & Cultivation (Manfacturing)	140	509.103 TSF	244	71	315	107	234	341	2,001
Administration / Office Building	715	24.709 TSF	39	5	44	6	36	42	278
TOTAL			**283**	**76**	**359**	**113**	**270**	**383**	**2,279**

[1] Trip Generation Source: Institute of Transportation Engineers (ITE), Trip Generation Manual, 10th Edition (2017).

[2] TSF = Thousand Square Feet

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EXHIBIT 6: PROJECT TRIP DISTRIBUTION



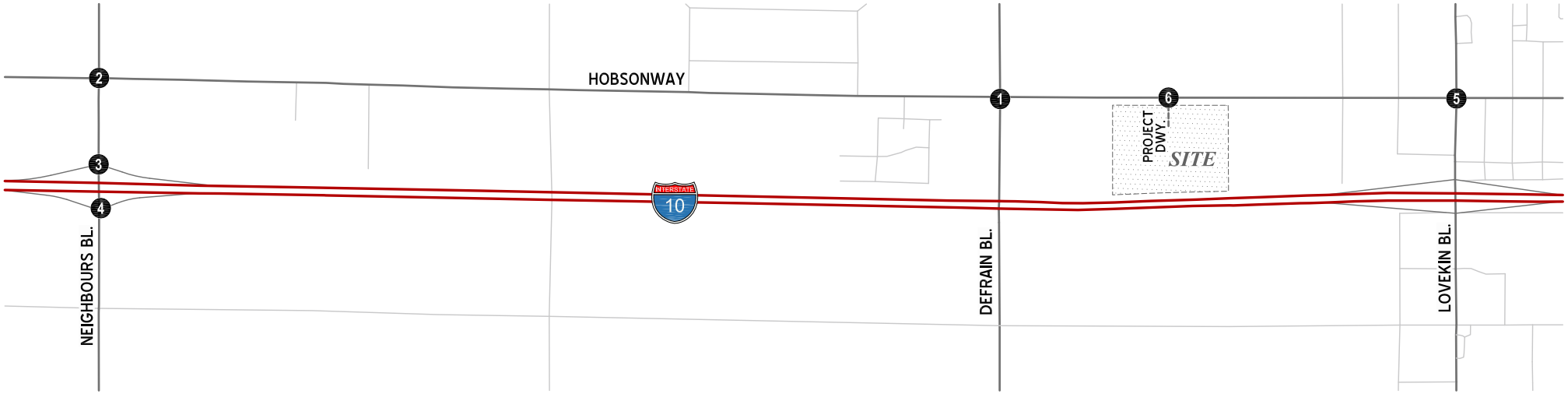
LEGEND:

10 = PERCENT FROM/TO PROJECT

– – – – = FUTURE DRIVEWAY

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EXHIBIT 7: PROJECT MORNING AND EVENING PEAK HOUR INTERSECTION VOLUMES

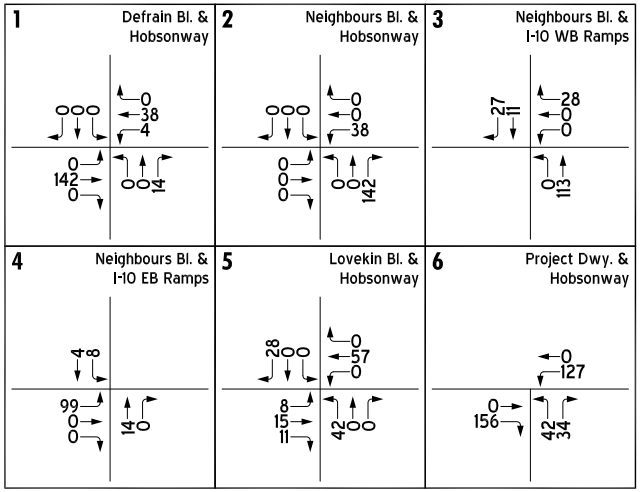


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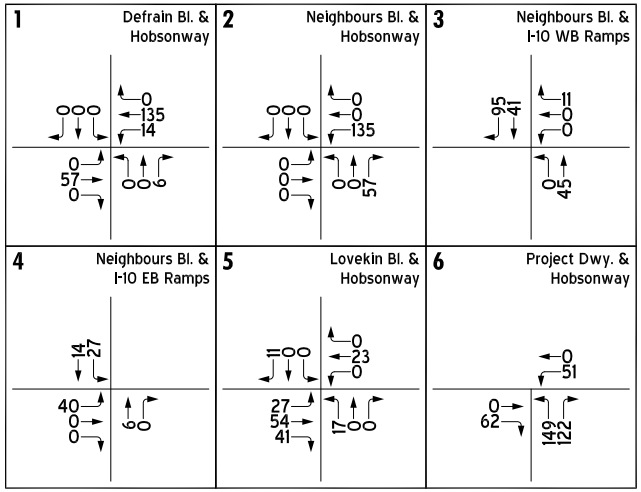
6 = INTERSECTION ID

- - - - = FUTURE PROJECT DRIVEWAY

AM PEAK HOUR

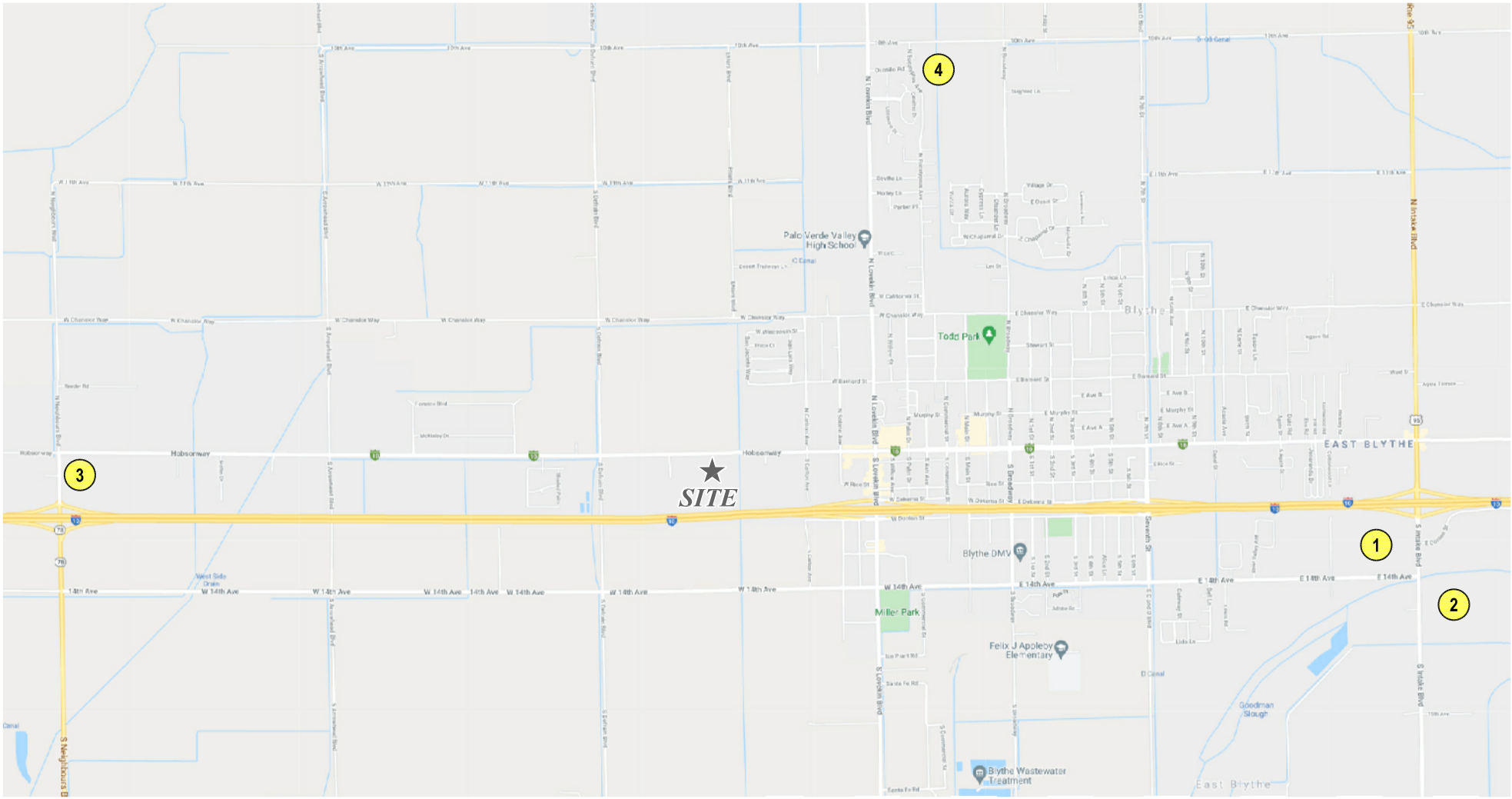


PM PEAK HOUR



N

EXHIBIT 8: CUMULATIVE DEVELOPMENT LOCATION MAP



LEGEND:

(1) = CUMULATIVE DEVELOPMENT

N

TABLE 2: CUMULATIVE DEVELOPMENT LAND USE SUMMARY

ID	Project Name	Land Use[1]	Quantity	Units[2]
1	Blythe Green Complex (NWC Intake Bl./14th Av.)	Manufacturing	54	EMP
		Distribution Center	15	EMP
		Administration/Office Bldg.	6.5	TSF
		Cultivation	592	EMP
		Marijuan Dispensary	5	TSF
2	Palo Verde Campus (SEC Intake Bl./14th Av.)	Manufacturing	54	EMP
		Administration/Office Bldg.	5.0	TSF
		Cultivation	768	EMP
3	Casablanca Farms (SEC Neighbours Bl./Hobsonway)	Administration/Office Bldg.	5.0	TSF
		Cultivation	24	EMP
4	Casa Bella (East of Lovekin Bl. & south of 10th Av.)	SFDR	130	DU

[1] SFDR = Single Family Detached Residential

[2] DU = Dwelling Units; TSF = Thousand Square Feet; EMP = Employees

F:\UXRjobs_14100-14500\14135\Excel\[14135 - TG.xlsx]14135-Cumulatives

APPENDIX 3.1:

EXISTING TRAFFIC COUNTS

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Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Blythe
N/S: Defrain Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 01_BLY_Defrain_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

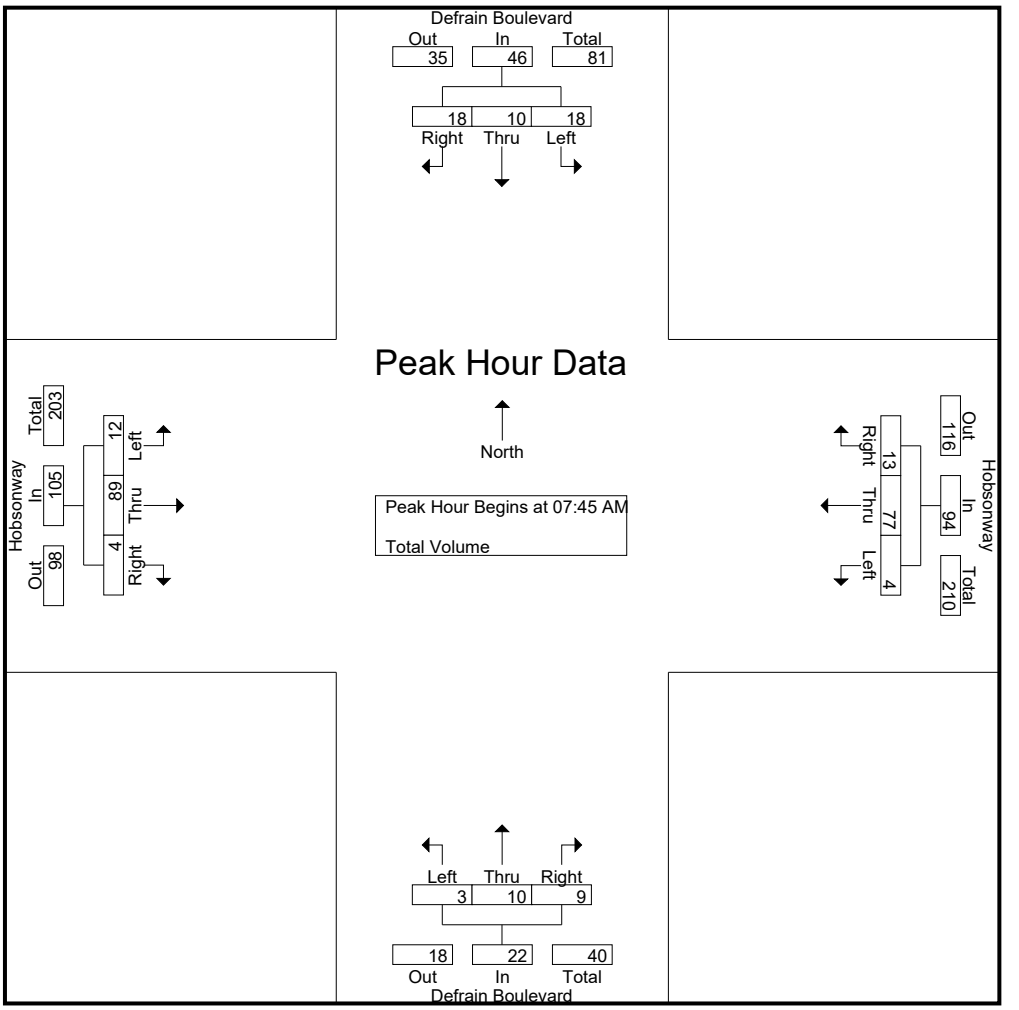
	Defrain Boulevard Southbound				Hobsonway Westbound				Defrain Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	0	4	5	0	14	4	18	1	3	2	6	2	15	1	18	47
07:15 AM	2	5	5	12	1	17	0	18	1	6	4	11	4	11	1	16	57
07:30 AM	2	4	5	11	1	14	3	18	0	4	0	4	5	25	2	32	65
07:45 AM	3	6	5	14	1	13	3	17	2	4	3	9	5	26	2	33	73
Total	8	15	19	42	3	58	10	71	4	17	9	30	16	77	6	99	242
08:00 AM	3	1	8	12	1	20	3	24	0	3	1	4	5	20	0	25	65
08:15 AM	3	2	3	8	0	21	5	26	1	2	4	7	1	21	0	22	63
08:30 AM	9	1	2	12	2	23	2	27	0	1	1	2	1	22	2	25	66
08:45 AM	4	1	2	7	1	10	4	15	3	1	1	5	2	18	0	20	47
Total	19	5	15	39	4	74	14	92	4	7	7	18	9	81	2	92	241
Grand Total	27	20	34	81	7	132	24	163	8	24	16	48	25	158	8	191	483
Apprch %	33.3	24.7	42		4.3	81	14.7		16.7	50	33.3		13.1	82.7	4.2		
Total %	5.6	4.1	7	16.8	1.4	27.3	5	33.7	1.7	5	3.3	9.9	5.2	32.7	1.7	39.5	

	Defrain Boulevard Southbound				Hobsonway Westbound				Defrain Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:45 AM																	
07:45 AM	3	**6**	5	**14**	1	13	3	17	**2**	**4**	3	**9**	**5**	**26**	**2**	**33**	**73**
08:00 AM	3	1	**8**	12	1	20	3	24	0	3	1	4	5	20	0	25	65
08:15 AM	3	2	3	8	0	21	**5**	26	1	2	**4**	7	1	21	0	22	63
08:30 AM	**9**	1	2	12	**2**	**23**	2	**27**	0	1	1	2	1	22	2	25	66
Total Volume	18	10	18	46	4	77	13	94	3	10	9	22	12	89	4	105	267
% App. Total	39.1	21.7	39.1		4.3	81.9	13.8		13.6	45.5	40.9		11.4	84.8	3.8		
PHF	.500	.417	.563	.821	.500	.837	.650	.870	.375	.625	.563	.611	.600	.856	.500	.795	.914

Counts Unlimited, Inc.
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(951)268-6268

City of Blythe
N/S: Defrain Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 01_BLY_Defrain_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:45 AM				07:00 AM				07:30 AM			
+0 mins.	2	5	5	12	1	13	3	17	1	3	2	6	**5**	25	**2**	32
+15 mins.	2	4	5	11	1	20	3	24	1	**6**	**4**	**11**	5	**26**	2	**33**
+30 mins.	**3**	**6**	5	**14**	0	21	**5**	26	0	4	0	4	5	20	0	25
+45 mins.	3	1	**8**	12	**2**	**23**	2	**27**	**2**	4	3	9	1	21	0	22
Total Volume	10	16	23	49	4	77	13	94	4	17	9	30	16	92	4	112
% App. Total	20.4	32.7	46.9		4.3	81.9	13.8		13.3	56.7	30		14.3	82.1	3.6	
PHF	.833	.667	.719	.875	.500	.837	.650	.870	.500	.708	.563	.682	.800	.885	.500	.848

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City of Blythe
N/S: Defrain Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 01_BLY_Defrain_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

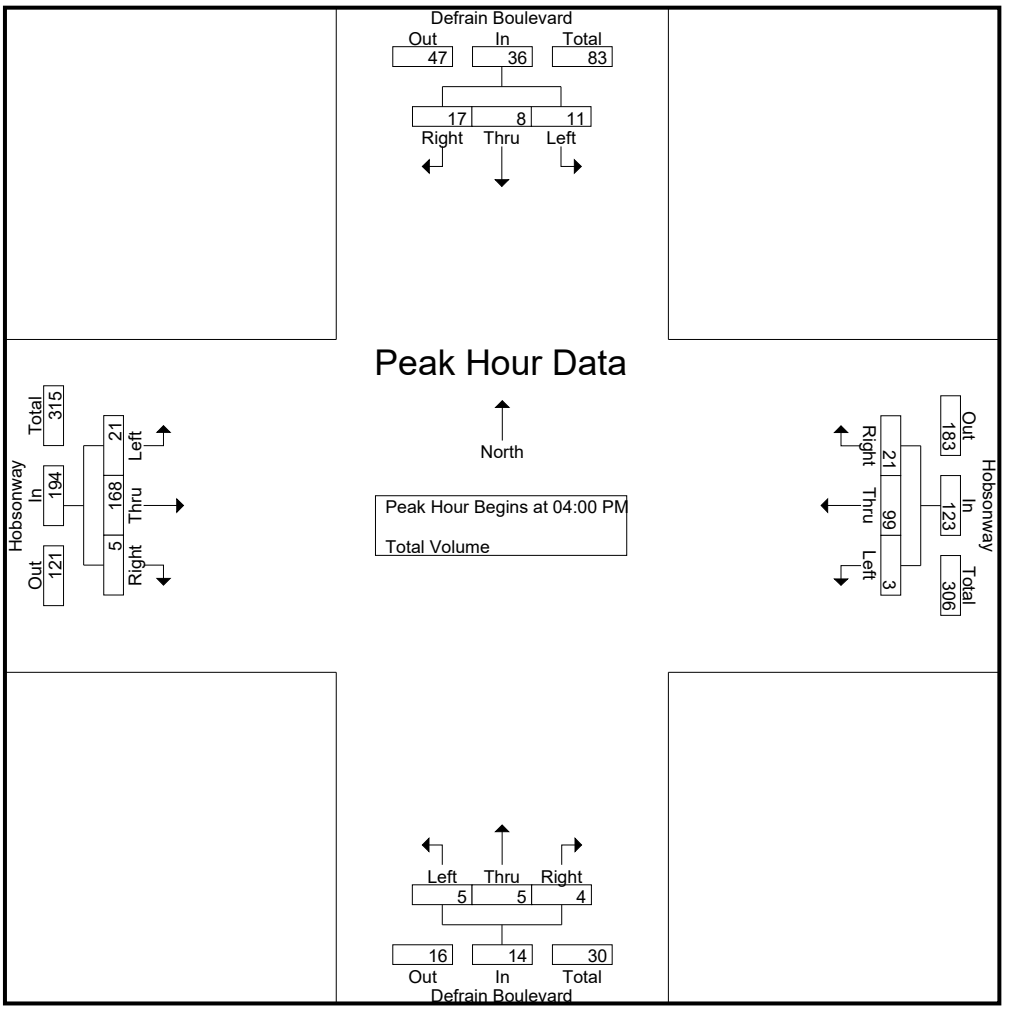
	Defrain Boulevard Southbound				Hobsonway Westbound				Defrain Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	2	3	3	8	1	35	5	41	1	2	2	5	6	75	0	81	135
04:15 PM	5	1	3	9	0	19	3	22	0	0	1	1	5	44	2	51	83
04:30 PM	3	2	6	11	2	29	6	37	3	0	0	3	3	25	1	29	80
04:45 PM	1	2	5	8	0	16	7	23	1	3	1	5	7	24	2	33	69
Total	11	8	17	36	3	99	21	123	5	5	4	14	21	168	5	194	367
05:00 PM	3	0	1	4	1	19	5	25	1	2	1	4	4	24	1	29	62
05:15 PM	4	4	5	13	1	15	6	22	2	2	1	5	2	20	1	23	63
05:30 PM	6	4	5	15	1	19	4	24	0	3	3	6	5	25	3	33	78
05:45 PM	3	3	2	8	1	11	6	18	1	1	1	3	1	18	0	19	48
Total	16	11	13	40	4	64	21	89	4	8	6	18	12	87	5	104	251
Grand Total	27	19	30	76	7	163	42	212	9	13	10	32	33	255	10	298	618
Apprch %	35.5	25	39.5		3.3	76.9	19.8		28.1	40.6	31.2		11.1	85.6	3.4		
Total %	4.4	3.1	4.9	12.3	1.1	26.4	6.8	34.3	1.5	2.1	1.6	5.2	5.3	41.3	1.6	48.2	

	Defrain Boulevard Southbound				Hobsonway Westbound				Defrain Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	2	**3**	3	8	1	**35**	5	**41**	1	2	**2**	**5**	6	**75**	0	**81**	**135**
04:15 PM	**5**	1	3	9	0	19	3	22	0	0	1	1	5	44	**2**	51	83
04:30 PM	3	2	**6**	**11**	**2**	29	6	37	**3**	0	0	3	3	25	1	29	80
04:45 PM	1	2	5	8	0	16	**7**	23	1	**3**	1	5	**7**	24	2	33	69
Total Volume	11	8	17	36	3	99	21	123	5	5	4	14	21	168	5	194	367
% App. Total	30.6	22.2	47.2		2.4	80.5	17.1		35.7	35.7	28.6		10.8	86.6	2.6		
PHF	.550	.667	.708	.818	.375	.707	.750	.750	.417	.417	.500	.700	.750	.560	.625	.599	.680

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Blythe
N/S: Defrain Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 01_BLY_Defrain_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:00 PM				04:45 PM				04:00 PM			
+0 mins.	1	2	**5**	8	1	**35**	5	**41**	1	**3**	1	5	6	**75**	0	**81**
+15 mins.	3	0	1	4	0	19	3	22	1	2	1	4	5	44	**2**	51
+30 mins.	4	**4**	5	13	**2**	29	6	37	**2**	2	1	5	3	25	1	29
+45 mins.	**6**	4	5	**15**	0	16	**7**	23	0	3	**3**	**6**	**7**	24	2	33
Total Volume	14	10	16	40	3	99	21	123	4	10	6	20	21	168	5	194
% App. Total	35	25	40		2.4	80.5	17.1		20	50	30		10.8	86.6	2.6	
PHF	.583	.625	.800	.667	.375	.707	.750	.750	.500	.833	.500	.833	.750	.560	.625	.599

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City of Blythe
N/S: Neighbours Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 02_BLY_Neigh_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

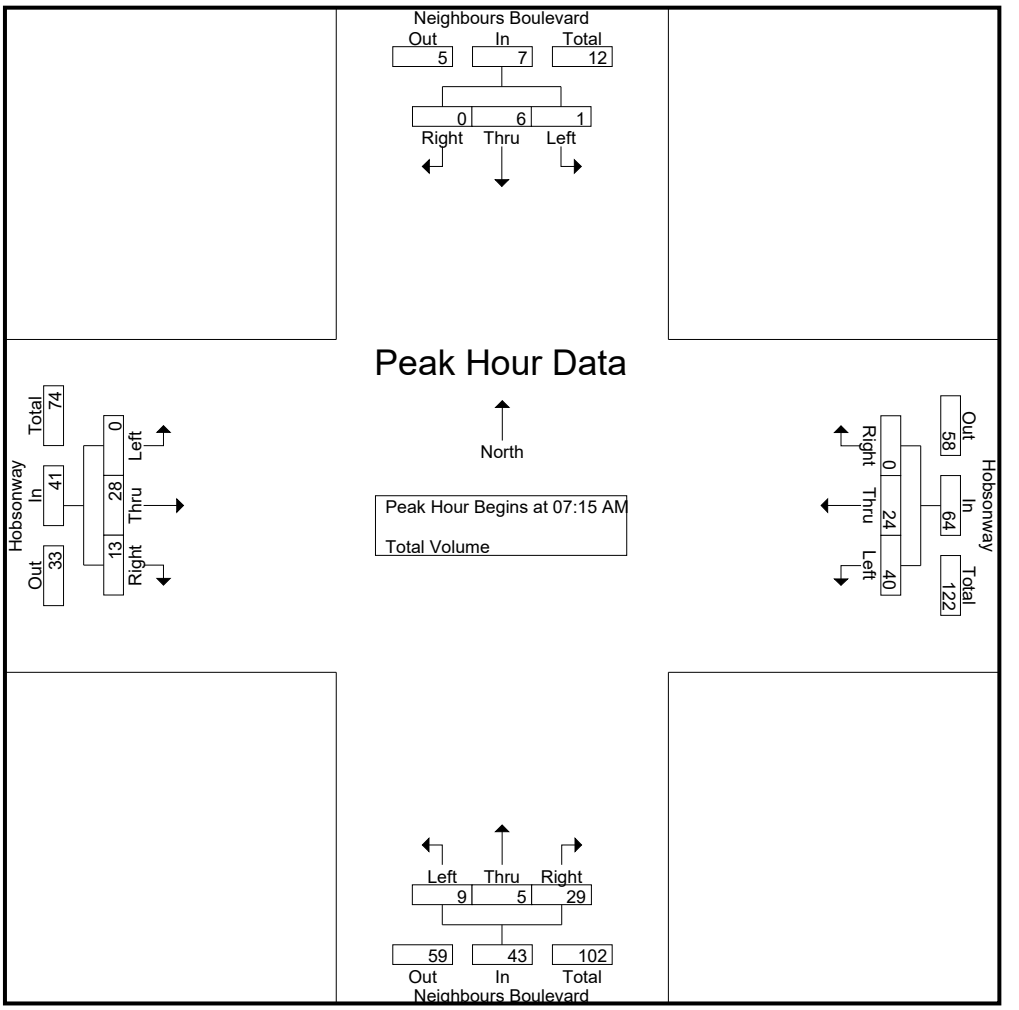
	Neighbours Boulevard Southbound				Hobsonway Westbound				Neighbours Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	1	1	2	9	4	0	13	4	1	2	7	0	8	0	8	30
07:15 AM	0	4	0	4	12	9	0	21	2	1	4	7	0	4	4	8	40
07:30 AM	0	0	0	0	20	0	0	20	3	2	7	12	0	6	2	8	40
07:45 AM	0	2	0	2	5	6	0	11	1	0	11	12	0	12	6	18	43
Total	0	7	1	8	46	19	0	65	10	4	24	38	0	30	12	42	153
08:00 AM	1	0	0	1	3	9	0	12	3	2	7	12	0	6	1	7	32
08:15 AM	0	2	1	3	7	4	1	12	3	2	5	10	1	9	3	13	38
08:30 AM	1	3	0	4	5	6	0	11	3	1	4	8	0	2	1	3	26
08:45 AM	0	0	0	0	7	5	0	12	2	1	5	8	0	10	2	12	32
Total	2	5	1	8	22	24	1	47	11	6	21	38	1	27	7	35	128
Grand Total	2	12	2	16	68	43	1	112	21	10	45	76	1	57	19	77	281
Apprch %	12.5	75	12.5		60.7	38.4	0.9		27.6	13.2	59.2		1.3	74	24.7		
Total %	0.7	4.3	0.7	5.7	24.2	15.3	0.4	39.9	7.5	3.6	16	27	0.4	20.3	6.8	27.4	

	Neighbours Boulevard Southbound				Hobsonway Westbound				Neighbours Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:15 AM																	
07:15 AM	0	**4**	0	**4**	12	**9**	0	**21**	2	1	4	7	0	4	4	8	40
07:30 AM	0	0	0	0	**20**	0	0	20	**3**	**2**	7	**12**	0	6	2	8	40
07:45 AM	0	2	0	2	5	6	0	11	1	0	**11**	12	0	**12**	**6**	**18**	**43**
08:00 AM	**1**	0	0	1	3	9	0	12	3	2	7	12	0	6	1	7	32
Total Volume	1	6	0	7	40	24	0	64	9	5	29	43	0	28	13	41	155
% App. Total	14.3	85.7	0		62.5	37.5	0		20.9	11.6	67.4		0	68.3	31.7		
PHF	.250	.375	.000	.438	.500	.667	.000	.762	.750	.625	.659	.896	.000	.583	.542	.569	.901

Counts Unlimited, Inc.
PO Box 1178
Corona, CA 92878
(951)268-6268

City of Blythe
N/S: Neighbours Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 02_BLY_Neigh_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:45 AM				07:00 AM				07:30 AM				07:30 AM			
+0 mins.	0	2	0	2	9	4	0	13	**3**	**2**	7	**12**	0	6	2	8
+15 mins.	**1**	0	0	1	12	**9**	0	**21**	1	0	**11**	12	0	**12**	**6**	**18**
+30 mins.	0	2	**1**	3	**20**	0	0	20	3	2	7	12	0	6	1	7
+45 mins.	1	**3**	0	**4**	5	6	0	11	3	2	5	10	**1**	9	3	13
Total Volume	2	7	1	10	46	19	0	65	10	6	30	46	1	33	12	46
% App. Total	20	70	10		70.8	29.2	0		21.7	13	65.2		2.2	71.7	26.1	
PHF	.500	.583	.250	.625	.575	.528	.000	.774	.833	.750	.682	.958	.250	.688	.500	.639

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City of Blythe
N/S: Neighbours Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 02_BLY_Neigh_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

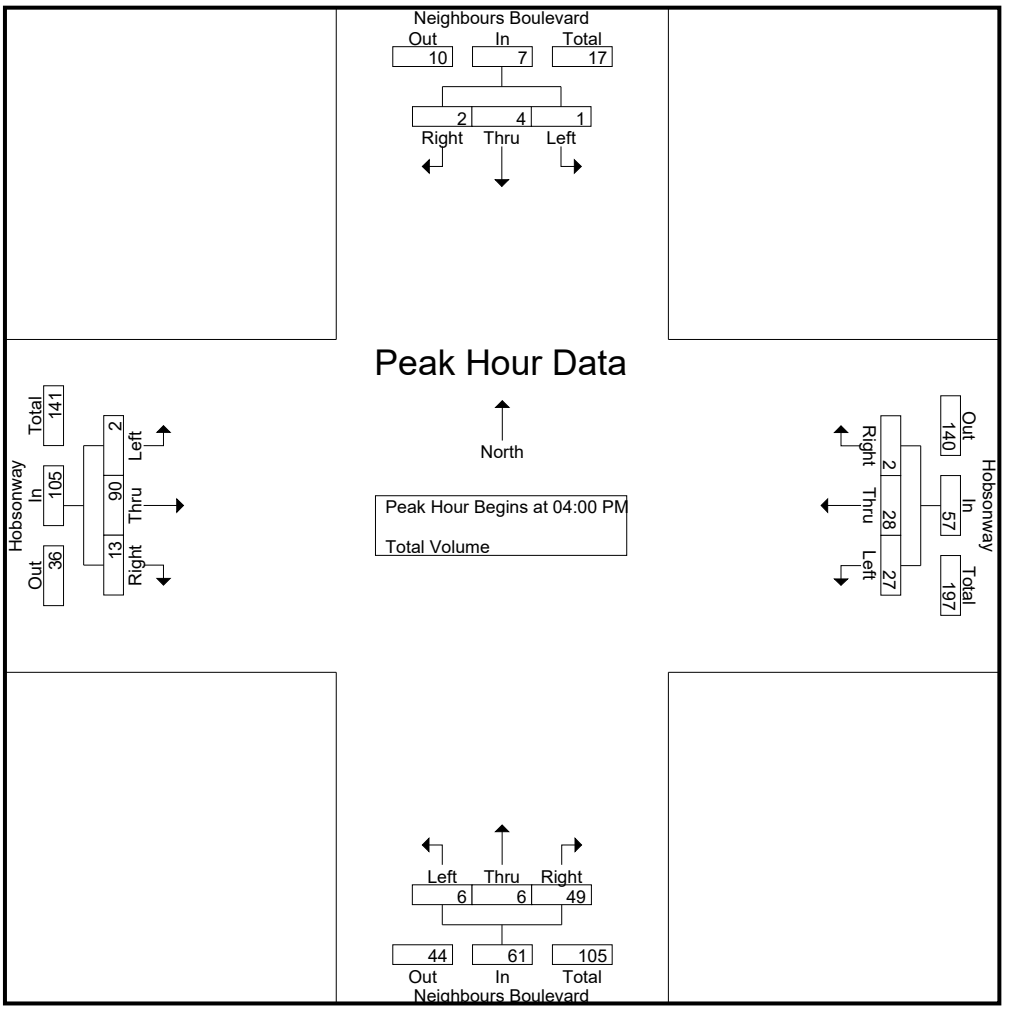
	Neighbours Boulevard Southbound				Hobsonway Westbound				Neighbours Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	3	0	3	12	10	0	22	2	2	17	21	0	48	6	54	100
04:15 PM	0	1	1	2	5	4	1	10	1	3	21	25	0	26	3	29	66
04:30 PM	0	0	0	0	5	9	0	14	1	0	2	3	0	10	3	13	30
04:45 PM	1	0	1	2	5	5	1	11	2	1	9	12	2	6	1	9	34
Total	1	4	2	7	27	28	2	57	6	6	49	61	2	90	13	105	230
05:00 PM	0	2	0	2	5	8	0	13	2	1	8	11	0	6	1	7	33
05:15 PM	0	1	0	1	4	8	0	12	0	0	16	16	0	1	1	2	31
05:30 PM	0	0	1	1	4	3	0	7	1	2	3	6	0	10	1	11	25
05:45 PM	0	1	1	2	1	5	2	8	0	1	4	5	1	5	1	7	22
Total	0	4	2	6	14	24	2	40	3	4	31	38	1	22	4	27	111
Grand Total	1	8	4	13	41	52	4	97	9	10	80	99	3	112	17	132	341
Apprch %	7.7	61.5	30.8		42.3	53.6	4.1		9.1	10.1	80.8		2.3	84.8	12.9		
Total %	0.3	2.3	1.2	3.8	12	15.2	1.2	28.4	2.6	2.9	23.5	29	0.9	32.8	5	38.7	

	Neighbours Boulevard Southbound				Hobsonway Westbound				Neighbours Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**3**	0	**3**	**12**	**10**	0	**22**	**2**	2	17	21	0	**48**	**6**	**54**	**100**
04:15 PM	0	1	**1**	2	5	4	**1**	10	1	**3**	**21**	**25**	0	26	3	29	66
04:30 PM	0	0	0	0	5	9	0	14	1	0	2	3	0	10	3	13	30
04:45 PM	**1**	0	1	2	5	5	1	11	2	1	9	12	**2**	6	1	9	34
Total Volume	1	4	2	7	27	28	2	57	6	6	49	61	2	90	13	105	230
% App. Total	14.3	57.1	28.6		47.4	49.1	3.5		9.8	9.8	80.3		1.9	85.7	12.4		
PHF	.250	.333	.500	.583	.563	.700	.500	.648	.750	.500	.583	.610	.250	.469	.542	.486	.575

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City of Blythe
N/S: Neighbours Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 02_BLY_Neigh_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**3**	0	**3**	**12**	**10**	0	**22**	**2**	2	17	21	0	**48**	**6**	**54**
+15 mins.	0	1	**1**	2	5	4	**1**	10	1	**3**	**21**	**25**	0	26	3	29
+30 mins.	0	0	0	0	5	9	0	14	1	0	2	3	0	10	3	13
+45 mins.	**1**	0	1	2	5	5	1	11	2	1	9	12	**2**	6	1	9
Total Volume	1	4	2	7	27	28	2	57	6	6	49	61	2	90	13	105
% App. Total	14.3	57.1	28.6		47.4	49.1	3.5		9.8	9.8	80.3		1.9	85.7	12.4	
PHF	.250	.333	.500	.583	.563	.700	.500	.648	.750	.500	.583	.610	.250	.469	.542	.486

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 03_BLY_Neigh_10W AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

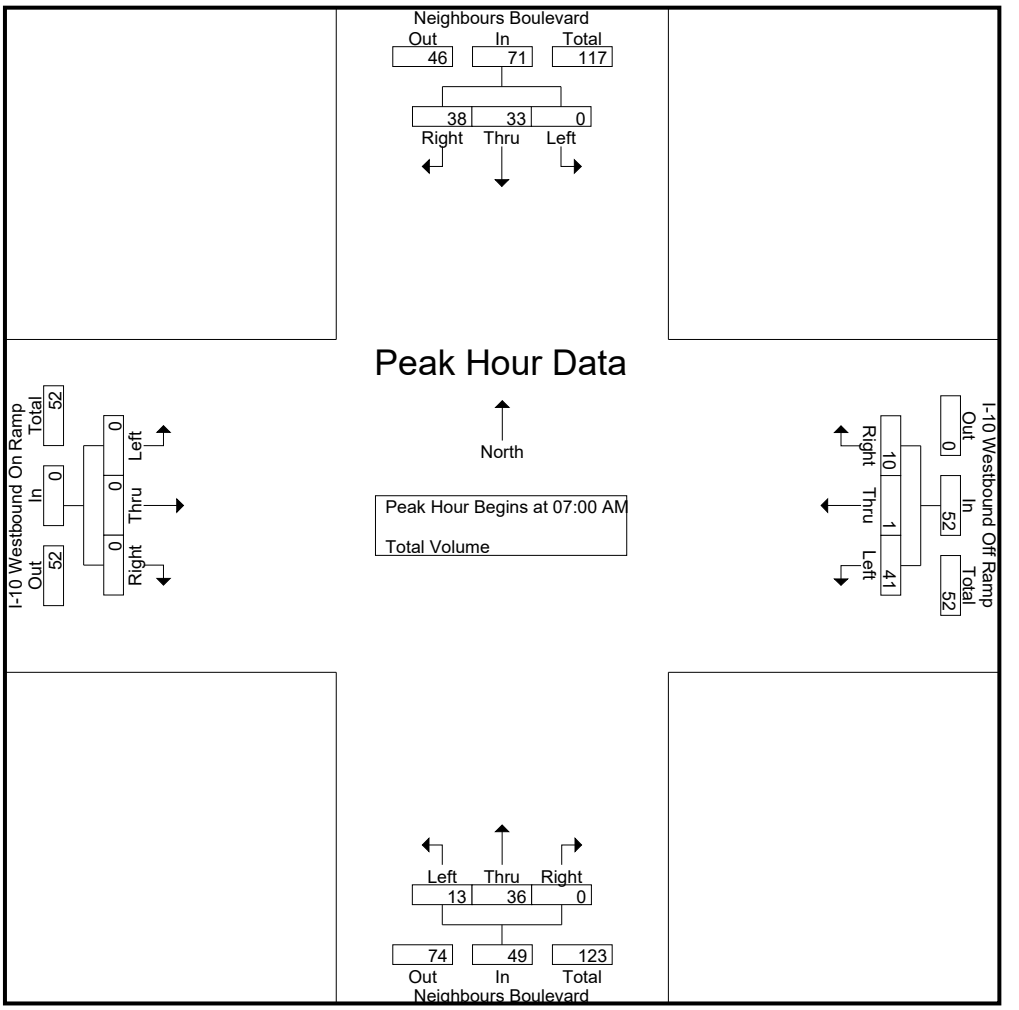
	Neighbours Boulevard Southbound				I-10 Westbound Off Ramp Westbound				Neighbours Boulevard Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	0	5	7	12	17	0	1	18	2	6	0	8	0	0	0	0	38
07:15 AM	0	7	15	22	12	1	1	14	5	10	0	15	0	0	0	0	51
07:30 AM	0	9	13	22	6	0	6	12	3	9	0	12	0	0	0	0	46
07:45 AM	0	12	3	15	6	0	2	8	3	11	0	14	0	0	0	0	37
Total	0	33	38	71	41	1	10	52	13	36	0	49	0	0	0	0	172
08:00 AM	0	3	5	8	7	0	5	12	2	11	0	13	0	0	0	0	33
08:15 AM	0	11	0	11	6	0	2	8	1	9	0	10	0	0	0	0	29
08:30 AM	0	3	3	6	7	1	3	11	4	5	0	9	0	0	0	0	26
08:45 AM	0	9	2	11	7	0	3	10	0	5	0	5	0	0	0	0	26
Total	0	26	10	36	27	1	13	41	7	30	0	37	0	0	0	0	114
Grand Total	0	59	48	107	68	2	23	93	20	66	0	86	0	0	0	0	286
Apprch %	0	55.1	44.9		73.1	2.2	24.7		23.3	76.7	0		0	0	0		
Total %	0	20.6	16.8	37.4	23.8	0.7	8	32.5	7	23.1	0	30.1	0	0	0	0	

	Neighbours Boulevard Southbound				I-10 Westbound Off Ramp Westbound				Neighbours Boulevard Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	0	5	7	12	**17**	0	1	**18**	2	6	0	8	0	0	0	0	38
07:15 AM	0	7	**15**	**22**	12	**1**	1	14	**5**	10	0	**15**	0	0	0	0	**51**
07:30 AM	0	9	13	22	6	0	**6**	12	3	9	0	12	0	0	0	0	46
07:45 AM	0	**12**	3	15	6	0	2	8	3	**11**	0	14	0	0	0	0	37
Total Volume	0	33	38	71	41	1	10	52	13	36	0	49	0	0	0	0	172
% App. Total	0	46.5	53.5		78.8	1.9	19.2		26.5	73.5	0		0	0	0		
PHF	.000	.688	.633	.807	.603	.250	.417	.722	.650	.818	.000	.817	.000	.000	.000	.000	.843

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(951)268-6268

City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 03_BLY_Neigh_10W AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:00 AM			
+0 mins.	0	5	7	12	**17**	0	1	**18**	**5**	10	0	**15**	0	0	0	0
+15 mins.	0	7	**15**	**22**	12	**1**	1	14	3	9	0	12	0	0	0	0
+30 mins.	0	9	13	22	6	0	**6**	12	3	**11**	0	14	0	0	0	0
+45 mins.	0	**12**	3	15	6	0	2	8	2	11	0	13	0	0	0	0
Total Volume	0	33	38	71	41	1	10	52	13	41	0	54	0	0	0	0
% App. Total	0	46.5	53.5		78.8	1.9	19.2		24.1	75.9	0		0	0	0	
PHF	.000	.688	.633	.807	.603	.250	.417	.722	.650	.932	.000	.900	.000	.000	.000	.000

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 03_BLY_Neigh_10W PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

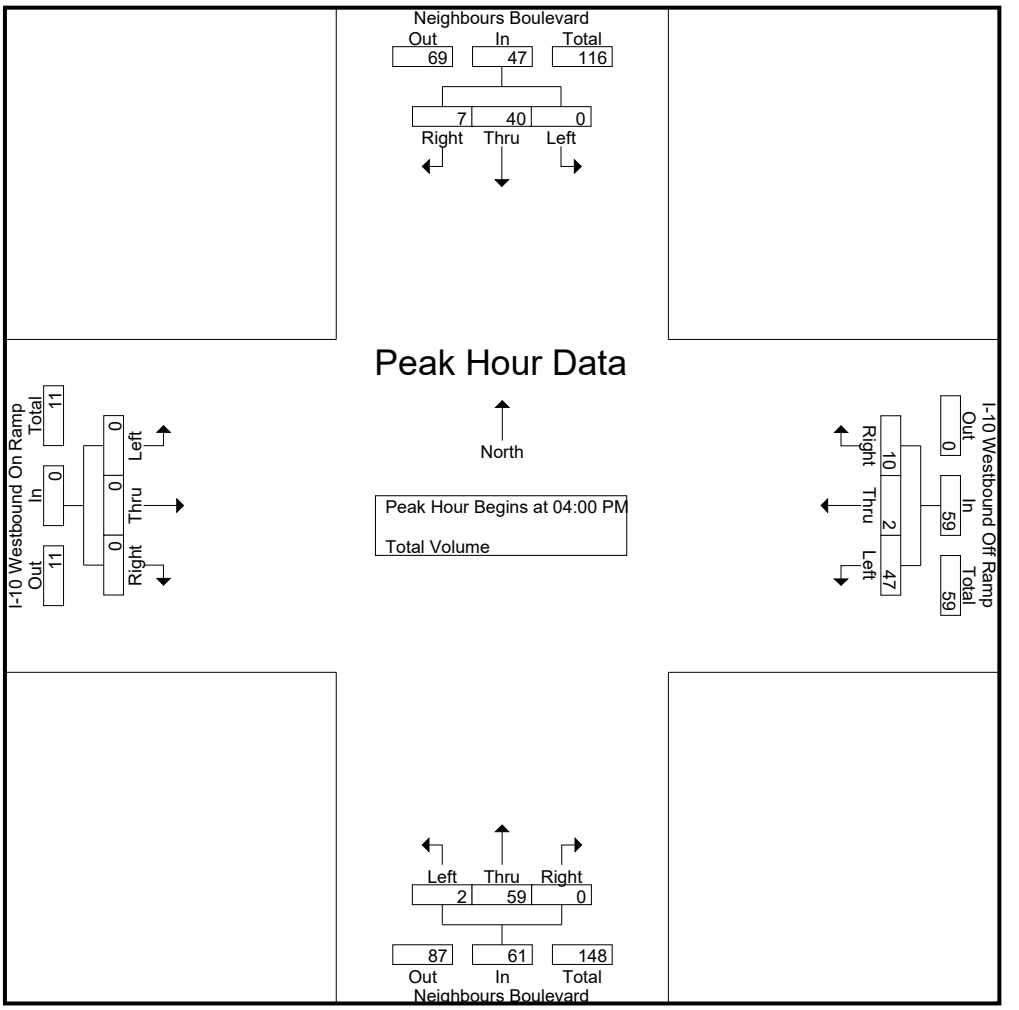
	Neighbours Boulevard Southbound				I-10 Westbound Off Ramp Westbound				Neighbours Boulevard Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	0	17	3	20	14	0	3	17	0	17	0	17	0	0	0	0	54
04:15 PM	0	6	1	7	9	1	1	11	1	24	0	25	0	0	0	0	43
04:30 PM	0	9	1	10	15	1	4	20	1	4	0	5	0	0	0	0	35
04:45 PM	0	8	2	10	9	0	2	11	0	14	0	14	0	0	0	0	35
Total	0	40	7	47	47	2	10	59	2	59	0	61	0	0	0	0	167
05:00 PM	0	8	3	11	8	0	3	11	0	9	0	9	0	0	0	0	31
05:15 PM	0	6	1	7	8	0	2	10	0	14	0	14	0	0	0	0	31
05:30 PM	0	6	1	7	12	0	3	15	0	7	0	7	0	0	0	0	29
05:45 PM	0	6	0	6	5	0	1	6	1	6	0	7	0	0	0	0	19
Total	0	26	5	31	33	0	9	42	1	36	0	37	0	0	0	0	110
Grand Total	0	66	12	78	80	2	19	101	3	95	0	98	0	0	0	0	277
Apprch %	0	84.6	15.4		79.2	2	18.8		3.1	96.9	0		0	0	0		
Total %	0	23.8	4.3	28.2	28.9	0.7	6.9	36.5	1.1	34.3	0	35.4	0	0	0	0	

	Neighbours Boulevard Southbound				I-10 Westbound Off Ramp Westbound				Neighbours Boulevard Northbound				I-10 Westbound On Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	0	**17**	**3**	**20**	14	0	3	17	0	17	0	17	0	0	0	0	**54**
04:15 PM	0	6	1	7	9	**1**	1	11	**1**	**24**	0	**25**	0	0	0	0	43
04:30 PM	0	9	1	10	**15**	1	**4**	**20**	1	4	0	5	0	0	0	0	35
04:45 PM	0	8	2	10	9	0	2	11	0	14	0	14	0	0	0	0	35
Total Volume	0	40	7	47	47	2	10	59	2	59	0	61	0	0	0	0	167
% App. Total	0	85.1	14.9		79.7	3.4	16.9		3.3	96.7	0		0	0	0		
PHF	.000	.588	.583	.588	.783	.500	.625	.738	.500	.615	.000	.610	.000	.000	.000	.000	.773

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Westbound Ramps
Weather: Clear

File Name : 03_BLY_Neigh_10W PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	0	**17**	**3**	**20**	14	0	3	17	0	17	0	17	0	0	0	0
+15 mins.	0	6	1	7	9	**1**	1	11	**1**	**24**	0	**25**	0	0	0	0
+30 mins.	0	9	1	10	**15**	1	**4**	**20**	1	4	0	5	0	0	0	0
+45 mins.	0	8	2	10	9	0	2	11	0	14	0	14	0	0	0	0
Total Volume	0	40	7	47	47	2	10	59	2	59	0	61	0	0	0	0
% App. Total	0	85.1	14.9		79.7	3.4	16.9		3.3	96.7	0		0	0	0	
PHF	.000	.588	.583	.588	.783	.500	.625	.738	.500	.615	.000	.610	.000	.000	.000	.000

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 04_BLY_Neigh_10E AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

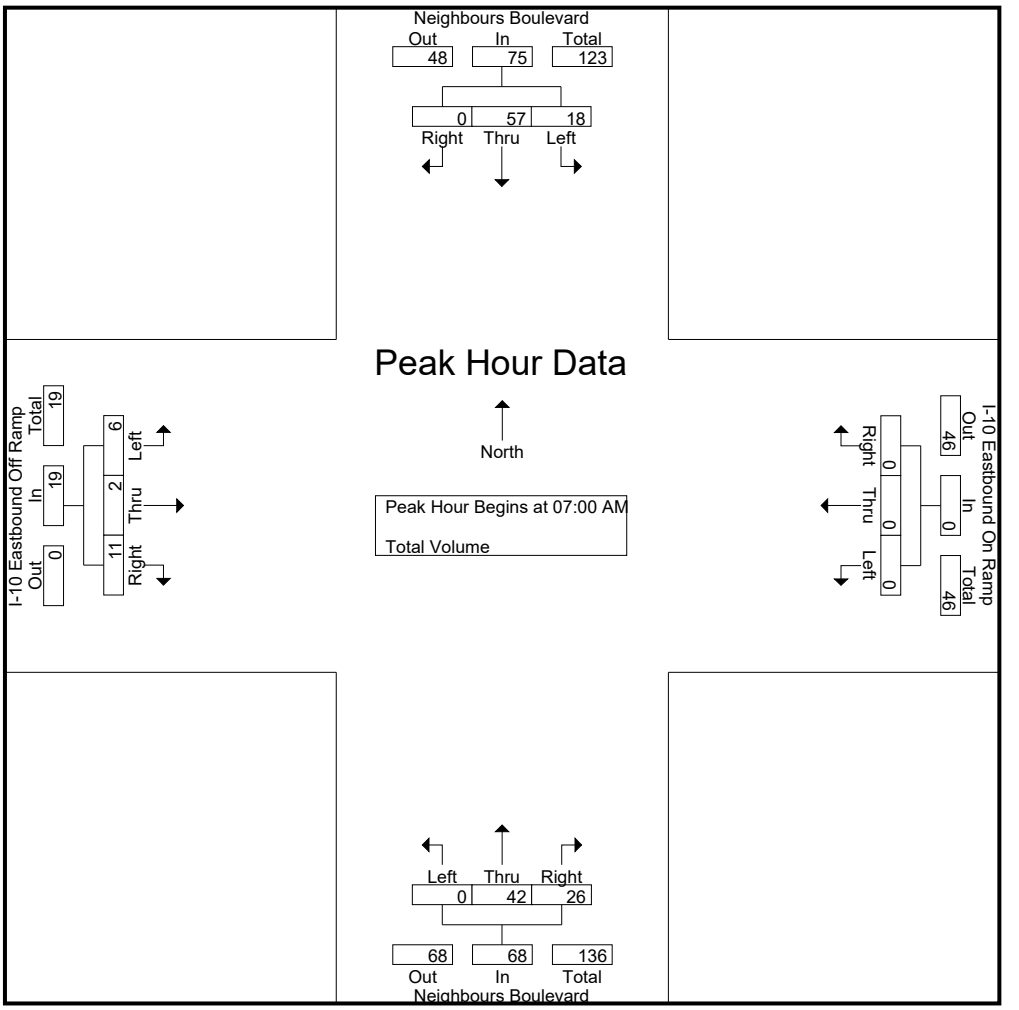
	Neighbours Boulevard Southbound				I-10 Eastbound On Ramp Westbound				Neighbours Boulevard Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	1	22	0	23	0	0	0	0	0	7	3	10	0	0	4	4	37
07:15 AM	4	15	0	19	0	0	0	0	0	13	8	21	2	1	4	7	47
07:30 AM	3	12	0	15	0	0	0	0	0	12	6	18	0	1	2	3	36
07:45 AM	10	8	0	18	0	0	0	0	0	10	9	19	4	0	1	5	42
Total	18	57	0	75	0	0	0	0	0	42	26	68	6	2	11	19	162
08:00 AM	2	8	0	10	0	0	0	0	0	9	9	18	4	0	3	7	35
08:15 AM	4	12	0	16	0	0	0	0	0	7	11	18	3	0	0	3	37
08:30 AM	1	10	0	11	0	0	0	0	0	9	10	19	0	0	3	3	33
08:45 AM	1	13	0	14	0	0	0	0	0	2	16	18	3	1	3	7	39
Total	8	43	0	51	0	0	0	0	0	27	46	73	10	1	9	20	144
Grand Total	26	100	0	126	0	0	0	0	0	69	72	141	16	3	20	39	306
Apprch %	20.6	79.4	0		0	0	0		0	48.9	51.1		41	7.7	51.3		
Total %	8.5	32.7	0	41.2	0	0	0	0	0	22.5	23.5	46.1	5.2	1	6.5	12.7	

	Neighbours Boulevard Southbound				I-10 Eastbound On Ramp Westbound				Neighbours Boulevard Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:00 AM																	
07:00 AM	1	**22**	0	**23**	0	0	0	0	0	7	3	10	0	0	**4**	4	37
07:15 AM	4	15	0	19	0	0	0	0	0	**13**	8	**21**	2	**1**	4	**7**	**47**
07:30 AM	3	12	0	15	0	0	0	0	0	12	6	18	0	1	2	3	36
07:45 AM	**10**	8	0	18	0	0	0	0	0	10	**9**	19	**4**	0	1	5	42
Total Volume	18	57	0	75	0	0	0	0	0	42	26	68	6	2	11	19	162
% App. Total	24	76	0		0	0	0		0	61.8	38.2		31.6	10.5	57.9		
PHF	.450	.648	.000	.815	.000	.000	.000	.000	.000	.808	.722	.810	.375	.500	.688	.679	.862

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 04_BLY_Neigh_10E AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:00 AM				07:00 AM				07:15 AM				07:15 AM			
+0 mins.	1	**22**	0	**23**	0	0	0	0	0	**13**	8	**21**	2	**1**	**4**	**7**
+15 mins.	4	15	0	19	0	0	0	0	0	12	6	18	0	1	2	3
+30 mins.	3	12	0	15	0	0	0	0	0	10	**9**	19	**4**	0	1	5
+45 mins.	**10**	8	0	18	0	0	0	0	0	9	9	18	4	0	3	7
Total Volume	18	57	0	75	0	0	0	0	0	44	32	76	10	2	10	22
% App. Total	24	76	0		0	0	0		0	57.9	42.1		45.5	9.1	45.5	
PHF	.450	.648	.000	.815	.000	.000	.000	.000	.000	.846	.889	.905	.625	.500	.625	.786

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 04_BLY_Neigh_10E PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

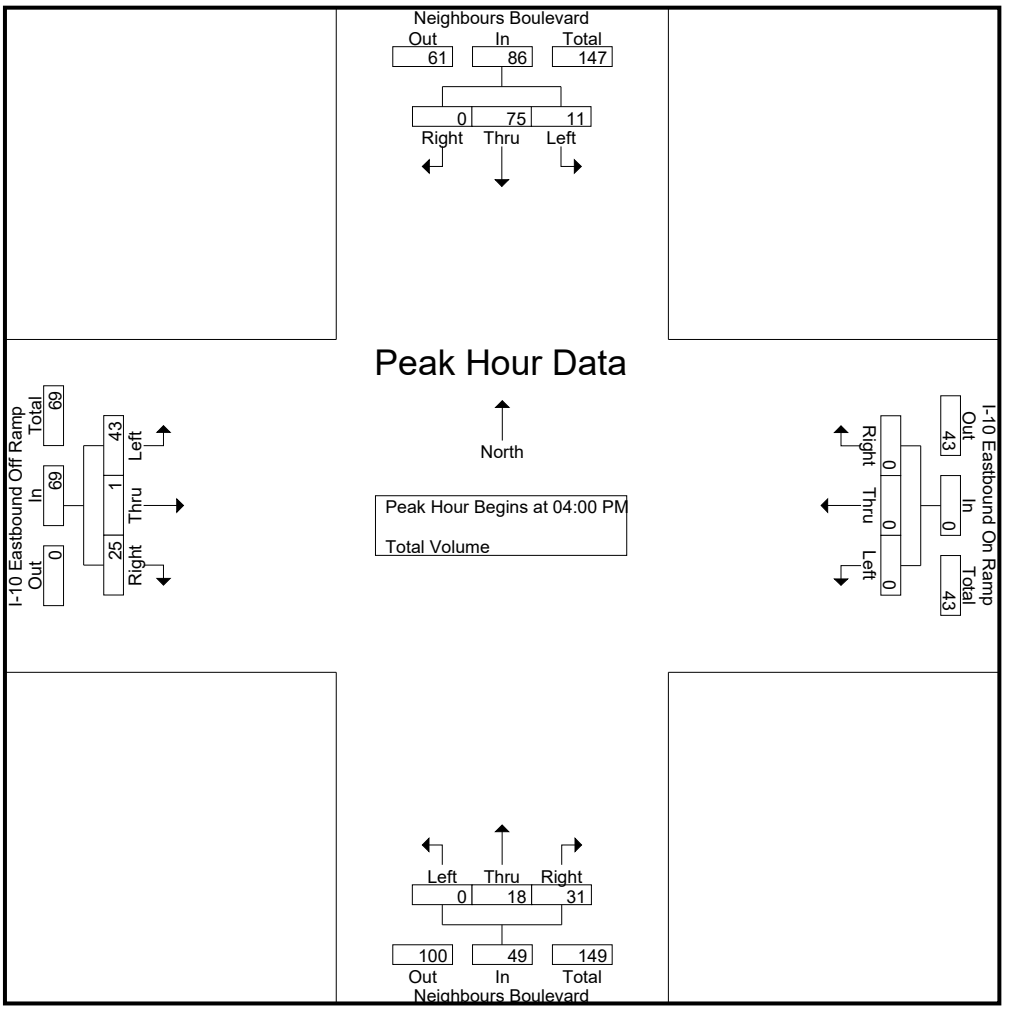
	Neighbours Boulevard Southbound				I-10 Eastbound On Ramp Westbound				Neighbours Boulevard Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	4	26	0	30	0	0	0	0	0	7	11	18	10	0	19	29	77
04:15 PM	2	11	0	13	0	0	0	0	0	4	6	10	21	0	4	25	48
04:30 PM	3	23	0	26	0	0	0	0	0	1	7	8	4	1	1	6	40
04:45 PM	2	15	0	17	0	0	0	0	0	6	7	13	8	0	1	9	39
Total	11	75	0	86	0	0	0	0	0	18	31	49	43	1	25	69	204
05:00 PM	3	13	0	16	0	0	0	0	0	4	7	11	5	0	0	5	32
05:15 PM	2	11	0	13	0	0	0	0	0	7	6	13	7	0	1	8	34
05:30 PM	3	16	0	19	0	0	0	0	0	3	6	9	4	1	1	6	34
05:45 PM	1	10	0	11	0	0	0	0	0	6	7	13	2	0	2	4	28
Total	9	50	0	59	0	0	0	0	0	20	26	46	18	1	4	23	128
Grand Total	20	125	0	145	0	0	0	0	0	38	57	95	61	2	29	92	332
Apprch %	13.8	86.2	0		0	0	0		0	40	60		66.3	2.2	31.5		
Total %	6	37.7	0	43.7	0	0	0	0	0	11.4	17.2	28.6	18.4	0.6	8.7	27.7	

	Neighbours Boulevard Southbound				I-10 Eastbound On Ramp Westbound				Neighbours Boulevard Northbound				I-10 Eastbound Off Ramp Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	**4**	**26**	0	**30**	0	0	0	0	0	**7**	**11**	**18**	10	0	**19**	**29**	**77**
04:15 PM	2	11	0	13	0	0	0	0	0	4	6	10	**21**	0	4	25	48
04:30 PM	3	23	0	26	0	0	0	0	0	1	7	8	4	**1**	1	6	40
04:45 PM	2	15	0	17	0	0	0	0	0	6	7	13	8	0	1	9	39
Total Volume	11	75	0	86	0	0	0	0	0	18	31	49	43	1	25	69	204
% App. Total	12.8	87.2	0		0	0	0		0	36.7	63.3		62.3	1.4	36.2		
PHF	.688	.721	.000	.717	.000	.000	.000	.000	.000	.643	.705	.681	.512	.250	.329	.595	.662

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City of Blythe
N/S: Neighbours Boulevard
E/W: I-10 Eastbound Ramps
Weather: Clear

File Name : 04_BLY_Neigh_10E PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 2



Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:00 PM				04:00 PM				04:00 PM				04:00 PM			
+0 mins.	**4**	**26**	0	**30**	0	0	0	0	0	**7**	**11**	**18**	10	0	**19**	**29**
+15 mins.	2	11	0	13	0	0	0	0	0	4	6	10	**21**	0	4	25
+30 mins.	3	23	0	26	0	0	0	0	0	1	7	8	4	**1**	1	6
+45 mins.	2	15	0	17	0	0	0	0	0	6	7	13	8	0	1	9
Total Volume	11	75	0	86	0	0	0	0	0	18	31	49	43	1	25	69
% App. Total	12.8	87.2	0		0	0	0		0	36.7	63.3		62.3	1.4	36.2	
PHF	.688	.721	.000	.717	.000	.000	.000	.000	.000	.643	.705	.681	.512	.250	.329	.595

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City of Blythe
N/S: Lovekin Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 05_BLY_Lovekin_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

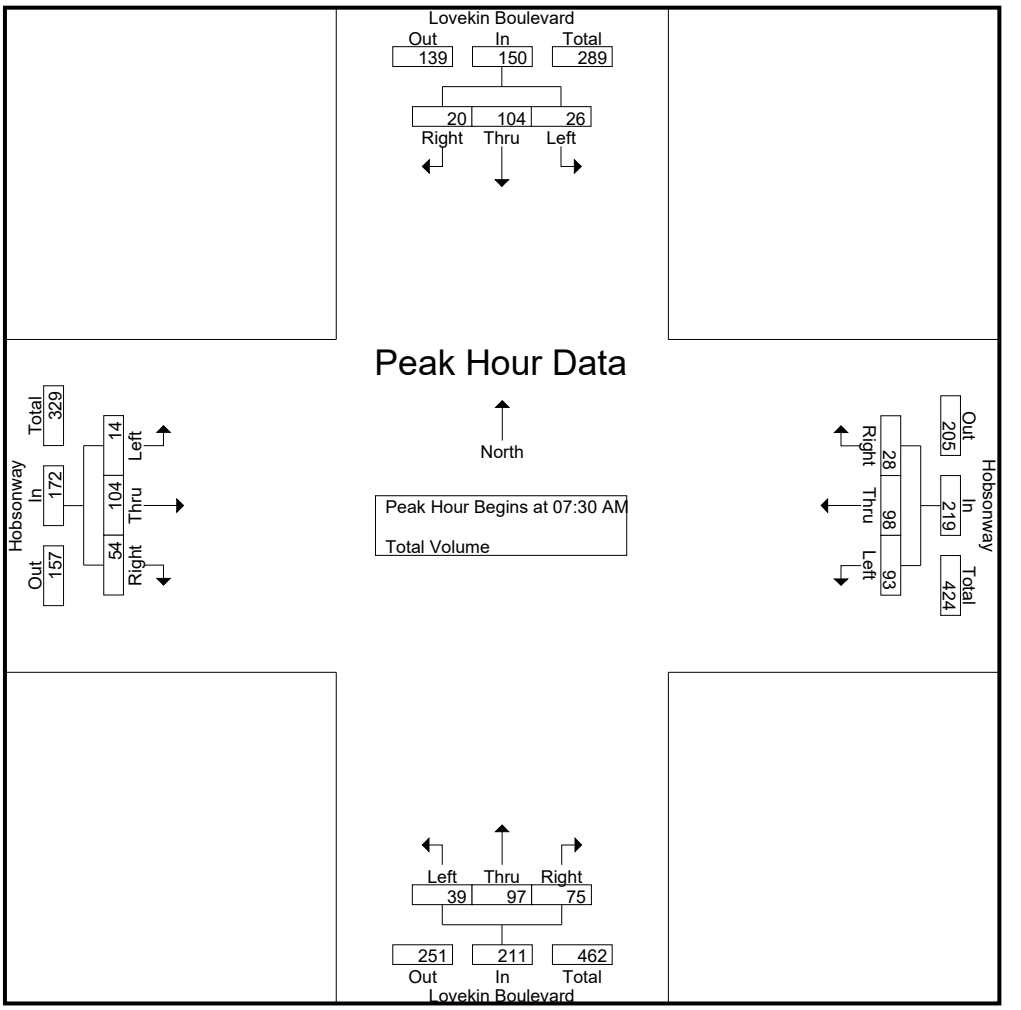
	Lovekin Boulevard Southbound				Hobsonway Westbound				Lovekin Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
07:00 AM	4	24	3	31	23	20	3	46	8	16	18	42	5	15	7	27	146
07:15 AM	3	31	2	36	30	29	3	62	9	17	18	44	5	11	11	27	169
07:30 AM	5	35	5	45	27	16	8	51	10	22	21	53	2	19	17	38	187
07:45 AM	3	21	4	28	25	22	13	60	11	23	12	46	3	26	8	37	171
Total	15	111	14	140	105	87	27	219	38	78	69	185	15	71	43	129	673
08:00 AM	12	24	9	45	23	33	3	59	12	25	18	55	6	34	13	53	212
08:15 AM	6	24	2	32	18	27	4	49	6	27	24	57	3	25	16	44	182
08:30 AM	2	16	2	20	23	31	6	60	9	11	20	40	1	23	17	41	161
08:45 AM	8	15	5	28	25	25	5	55	5	10	27	42	3	33	4	40	165
Total	28	79	18	125	89	116	18	223	32	73	89	194	13	115	50	178	720
Grand Total	43	190	32	265	194	203	45	442	70	151	158	379	28	186	93	307	1393
Apprch %	16.2	71.7	12.1		43.9	45.9	10.2		18.5	39.8	41.7		9.1	60.6	30.3		
Total %	3.1	13.6	2.3	19	13.9	14.6	3.2	31.7	5	10.8	11.3	27.2	2	13.4	6.7	22	

	Lovekin Boulevard Southbound				Hobsonway Westbound				Lovekin Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 07:30 AM																	
07:30 AM	5	**35**	5	**45**	**27**	16	8	51	10	22	21	53	2	19	**17**	38	187
07:45 AM	3	21	4	28	25	22	**13**	**60**	11	23	12	46	3	26	8	37	171
08:00 AM	**12**	24	**9**	45	23	**33**	3	59	**12**	25	18	55	**6**	**34**	13	**53**	**212**
08:15 AM	6	24	2	32	18	27	4	49	6	**27**	**24**	**57**	3	25	16	44	182
Total Volume	26	104	20	150	93	98	28	219	39	97	75	211	14	104	54	172	752
% App. Total	17.3	69.3	13.3		42.5	44.7	12.8		18.5	46	35.5		8.1	60.5	31.4		
PHF	.542	.743	.556	.833	.861	.742	.538	.913	.813	.898	.781	.925	.583	.765	.794	.811	.887

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City of Blythe
N/S: Lovekin Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 05_BLY_Lovekin_Hobsonway AM
Site Code : 05121352
Start Date : 7/20/2021



Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	07:15 AM				07:15 AM				07:30 AM				08:00 AM			
+0 mins.	3	31	2	36	**30**	29	3	**62**	10	22	21	53	**6**	**34**	13	**53**
+15 mins.	5	**35**	5	**45**	27	16	8	51	11	23	12	46	3	25	16	44
+30 mins.	3	21	4	28	25	22	**13**	60	**12**	25	18	55	1	23	**17**	41
+45 mins.	**12**	24	**9**	45	23	**33**	3	59	6	**27**	**24**	**57**	3	33	4	40
Total Volume	23	111	20	154	105	100	27	232	39	97	75	211	13	115	50	178
% App. Total	14.9	72.1	13		45.3	43.1	11.6		18.5	46	35.5		7.3	64.6	28.1	
PHF	.479	.793	.556	.856	.875	.758	.519	.935	.813	.898	.781	.925	.542	.846	.735	.840

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City of Blythe
N/S: Lovekin Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 05_BLY_Lovekin_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021
Page No : 1

Groups Printed- Total Volume

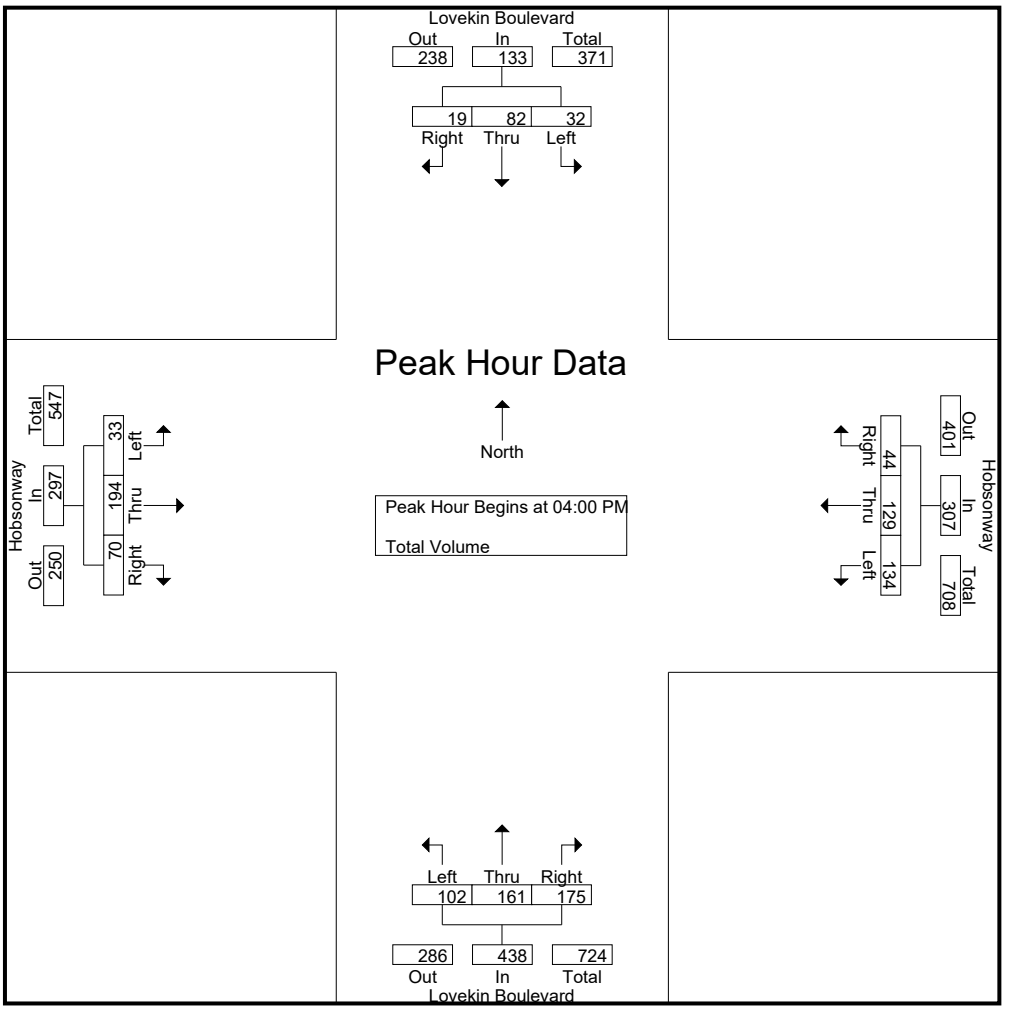
	Lovekin Boulevard Southbound				Hobsonway Westbound				Lovekin Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
04:00 PM	6	20	6	32	33	39	11	83	24	48	46	118	10	56	28	94	327
04:15 PM	10	21	5	36	36	29	7	72	32	59	61	152	9	71	20	100	360
04:30 PM	12	15	5	32	30	29	15	74	22	29	38	89	9	32	13	54	249
04:45 PM	4	26	3	33	35	32	11	78	24	25	30	79	5	35	9	49	239
Total	32	82	19	133	134	129	44	307	102	161	175	438	33	194	70	297	1175
05:00 PM	12	28	7	47	36	27	12	75	18	29	32	79	4	32	28	64	265
05:15 PM	11	28	3	42	43	31	7	81	15	36	32	83	4	30	14	48	254
05:30 PM	4	26	3	33	30	29	6	65	12	24	26	62	5	46	25	76	236
05:45 PM	10	14	4	28	37	26	17	80	12	21	38	71	2	39	9	50	229
Total	37	96	17	150	146	113	42	301	57	110	128	295	15	147	76	238	984
Grand Total	69	178	36	283	280	242	86	608	159	271	303	733	48	341	146	535	2159
Apprch %	24.4	62.9	12.7		46.1	39.8	14.1		21.7	37	41.3		9	63.7	27.3		
Total %	3.2	8.2	1.7	13.1	13	11.2	4	28.2	7.4	12.6	14	34	2.2	15.8	6.8	24.8	

	Lovekin Boulevard Southbound				Hobsonway Westbound				Lovekin Boulevard Northbound				Hobsonway Eastbound				
Start Time	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Left	Thru	Right	App. Total	Int. Total
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																	
Peak Hour for Entire Intersection Begins at 04:00 PM																	
04:00 PM	6	20	**6**	32	33	**39**	11	**83**	24	48	46	118	**10**	56	**28**	94	327
04:15 PM	10	21	5	**36**	**36**	29	7	72	**32**	**59**	**61**	**152**	9	**71**	20	**100**	**360**
04:30 PM	**12**	15	5	32	30	29	**15**	74	22	29	38	89	9	32	13	54	249
04:45 PM	4	**26**	3	33	35	32	11	78	24	25	30	79	5	35	9	49	239
Total Volume	32	82	19	133	134	129	44	307	102	161	175	438	33	194	70	297	1175
% App. Total	24.1	61.7	14.3		43.6	42	14.3		23.3	36.8	40		11.1	65.3	23.6		
PHF	.667	.788	.792	.924	.931	.827	.733	.925	.797	.682	.717	.720	.825	.683	.625	.743	.816

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City of Blythe
N/S: Lovekin Boulevard
E/W: Hobsonway
Weather: Clear

File Name : 05_BLY_Lovekin_Hobsonway PM
Site Code : 05121352
Start Date : 7/20/2021



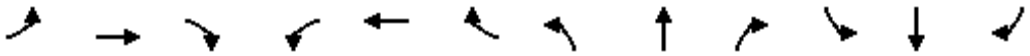
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1
Peak Hour for Each Approach Begins at:

	04:45 PM				04:30 PM				04:00 PM				04:00 PM			
+0 mins.	4	26	3	33	30	29	**15**	74	24	48	46	118	**10**	56	**28**	94
+15 mins.	**12**	**28**	**7**	**47**	35	**32**	11	78	**32**	**59**	**61**	**152**	9	**71**	20	**100**
+30 mins.	11	28	3	42	36	27	12	75	22	29	38	89	9	32	13	54
+45 mins.	4	26	3	33	**43**	31	7	**81**	24	25	30	79	5	35	9	49
Total Volume	31	108	16	155	144	119	45	308	102	161	175	438	33	194	70	297
% App. Total	20	69.7	10.3		46.8	38.6	14.6		23.3	36.8	40		11.1	65.3	23.6	
PHF	.646	.964	.571	.824	.837	.930	.750	.951	.797	.682	.717	.720	.825	.683	.625	.743

APPENDIX 3.2:

EXISTING (2021) CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	19	136	7	7	118	20	4	16	13	28	16	28
Future Volume (vph)	19	136	7	7	118	20	4	16	13	28	16	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

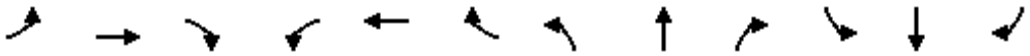
Intersection	
Int Delay, s/veh	3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	19	136	7	7	118	20	4	16	13	28	16	28
Future Vol, veh/h	19	136	7	7	118	20	4	16	13	28	16	28
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	149	8	8	130	22	4	18	14	31	18	31

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	157	0	0	162	0	0	387	373	163	378	366	151
Stage 1	-	-	-	-	-	-	200	200	-	162	162	-
Stage 2	-	-	-	-	-	-	187	173	-	216	204	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1423	-	-	1417	-	-	572	557	882	580	562	895
Stage 1	-	-	-	-	-	-	802	736	-	840	764	-
Stage 2	-	-	-	-	-	-	815	756	-	786	733	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1416	-	-	1410	-	-	525	539	874	542	544	886
Mov Cap-2 Maneuver	-	-	-	-	-	-	525	539	-	542	544	-
Stage 1	-	-	-	-	-	-	785	721	-	822	756	-
Stage 2	-	-	-	-	-	-	760	748	-	739	718	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.9	0.4	11	11.4
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	632	1416	-	-	1410	-	-	639
HCM Lane V/C Ratio	0.057	0.015	-	-	0.005	-	-	0.124
HCM Control Delay (s)	11	7.6	0	-	7.6	0	-	11.4
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0	-	-	0	-	-	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	43	20	61	37	1	13	8	44	1	9	1
Future Volume (vph)	1	43	20	61	37	1	13	8	44	1	9	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

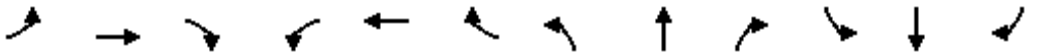
Intersection	
Int Delay, s/veh	5.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	1	43	20	61	37	1	13	8	44	1	9	1
Future Vol, veh/h	1	43	20	61	37	1	13	8	44	1	9	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	48	22	68	41	1	14	9	49	1	10	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	47	0	0	75	0	0	254	249	69	278	260	52
Stage 1	-	-	-	-	-	-	66	66	-	183	183	-
Stage 2	-	-	-	-	-	-	188	183	-	95	77	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1560	-	-	1524	-	-	699	654	994	674	645	1016
Stage 1	-	-	-	-	-	-	945	840	-	819	748	-
Stage 2	-	-	-	-	-	-	814	748	-	912	831	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1553	-	-	1517	-	-	658	617	985	605	609	1006
Mov Cap-2 Maneuver	-	-	-	-	-	-	658	617	-	605	609	-
Stage 1	-	-	-	-	-	-	939	835	-	814	710	-
Stage 2	-	-	-	-	-	-	761	710	-	853	826	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	4.6	9.7	10.8
HCM LOS			A	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	840	1553	-	-	1517	-	-	631
HCM Lane V/C Ratio	0.086	0.001	-	-	0.045	-	-	0.019
HCM Control Delay (s)	9.7	7.3	0	-	7.5	0	-	10.8
HCM Lane LOS	A	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	63	1	16	20	55	0	0	53	59
Future Volume (vph)	0	0	0	63	1	16	20	55	0	0	53	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

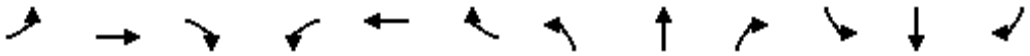
Intersection	
Int Delay, s/veh	3.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	63	1	16	20	55	0	0	53	59
Future Vol, veh/h	0	0	0	63	1	16	20	55	0	0	53	59
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	75	1	19	24	65	0	0	63	70

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	176	176	65	63	0	-	-	-	0
Stage 1	113	113	-	-	-	-	-	-	-
Stage 2	63	63	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	814	717	999	1540	-	0	0	-	-
Stage 1	912	802	-	-	-	0	0	-	-
Stage 2	960	842	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	801	0	999	1540	-	-	-	-	-
Mov Cap-2 Maneuver	801	0	-	-	-	-	-	-	-
Stage 1	897	0	-	-	-	-	-	-	-
Stage 2	960	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	9.7	2	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1540	-	801	999	-	-
HCM Lane V/C Ratio	0.015	-	0.095	0.019	-	-
HCM Control Delay (s)	7.4	-	10	8.7	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	9	3	17	0	0	0	0	66	40	28	88	0
Future Volume (vph)	9	3	17	0	0	0	0	66	40	28	88	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	1.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	9	3	17	0	0	0	0	66	40	28	88	0
Future Vol, veh/h	9	3	17	0	0	0	0	66	40	28	88	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	10	3	20	0	0	0	0	77	47	33	102	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	245	245	102	-	0	0	77	0	0
Stage 1	168	168	-	-	-	-	-	-	-
Stage 2	77	77	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	743	657	953	0	-	-	1522	-	0
Stage 1	862	759	-	0	-	-	-	-	0
Stage 2	946	831	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	726	0	953	-	-	-	1522	-	-
Mov Cap-2 Maneuver	726	0	-	-	-	-	-	-	-
Stage 1	862	0	-	-	-	-	-	-	-
Stage 2	924	0	-	-	-	-	-	-	-

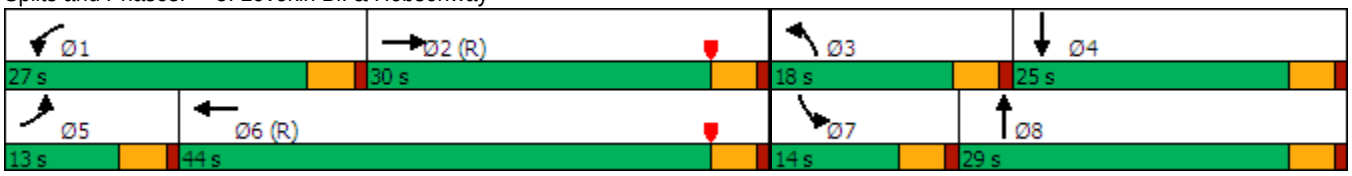
Approach	EB	NB	SB
HCM Control Delay, s	9.4	0	1.8
HCM LOS	A		

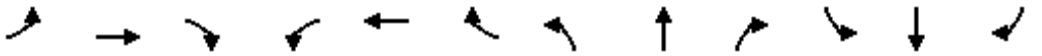
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	726	953	1522	-
HCM Lane V/C Ratio	-	-	0.019	0.021	0.021	-
HCM Control Delay (s)	-	-	10.1	8.9	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.1	0.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	160	82	142	150	43	60	149	114	40	160	31
Future Volume (vph)	21	160	82	142	150	43	60	149	114	40	160	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	13.0	30.0		27.0	44.0		18.0	29.0		14.0	25.0	
Total Split (%)	13.0%	30.0%		27.0%	44.0%		18.0%	29.0%		14.0%	25.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway

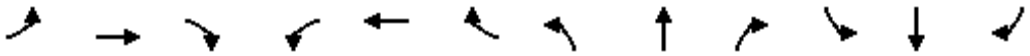




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	21	160	82	142	150	43	60	149	114	40	160	31
Future Volume (veh/h)	21	160	82	142	150	43	60	149	114	40	160	31
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	24	180	92	160	169	48	67	167	128	45	180	35
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	43	993	485	195	1416	391	87	482	347	64	690	131
Arrive On Green	0.02	0.43	0.43	0.11	0.51	0.51	0.05	0.25	0.25	0.04	0.23	0.23
Sat Flow, veh/h	1781	2311	1129	1781	2750	758	1781	1968	1415	1781	2974	566
Grp Volume(v), veh/h	24	136	136	160	107	110	67	150	145	45	106	109
Grp Sat Flow(s),veh/h/ln	1781	1777	1663	1781	1777	1731	1781	1777	1605	1781	1777	1764
Q Serve(g_s), s	1.3	4.7	5.1	8.8	3.1	3.3	3.7	6.9	7.5	2.5	4.9	5.1
Cycle Q Clear(g_c), s	1.3	4.7	5.1	8.8	3.1	3.3	3.7	6.9	7.5	2.5	4.9	5.1
Prop In Lane	1.00		0.68	1.00		0.44	1.00		0.88	1.00		0.32
Lane Grp Cap(c), veh/h	43	764	714	195	915	892	87	435	393	64	412	409
V/C Ratio(X)	0.55	0.18	0.19	0.82	0.12	0.12	0.77	0.34	0.37	0.71	0.26	0.27
Avail Cap(c_a), veh/h	151	764	714	401	915	892	240	435	393	169	412	409
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.2	17.6	17.7	43.6	12.5	12.6	47.0	31.1	31.3	47.7	31.4	31.4
Incr Delay (d2), s/veh	10.6	0.5	0.6	8.2	0.3	0.3	13.3	2.2	2.7	13.5	1.5	1.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	2.0	2.0	4.2	1.3	1.3	1.9	3.2	3.1	1.3	2.2	2.3
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	18.1	18.3	51.8	12.8	12.8	60.3	33.3	34.0	61.2	32.9	33.0
LnGrp LOS	E	B	B	D	B	B	E	C	C	E	C	C
Approach Vol, veh/h		296			377			362			260	
Approach Delay, s/veh		21.5			29.3			38.6			37.8	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	15.5	47.5	9.4	27.7	6.9	56.0	8.1	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	25.5	13.5	20.5	8.5	39.5	9.5	24.5
Max Q Clear Time (g_c+I1), s	10.8	7.1	5.7	7.1	3.3	5.3	4.5	9.5
Green Ext Time (p_c), s	0.3	1.4	0.1	0.9	0.0	1.2	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	31.8
HCM 6th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	32	257	8	4	152	32	8	8	7	17	12	27
Future Volume (vph)	32	257	8	4	152	32	8	8	7	17	12	27
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

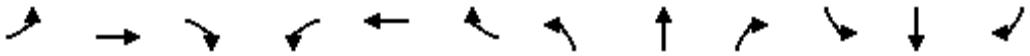
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	32	257	8	4	152	32	8	8	7	17	12	27
Future Vol, veh/h	32	257	8	4	152	32	8	8	7	17	12	27
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	36	286	9	4	169	36	9	9	8	19	13	30

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	210	0	0	300	0	0	590	586	301	576	572	197
Stage 1	-	-	-	-	-	-	368	368	-	200	200	-
Stage 2	-	-	-	-	-	-	222	218	-	376	372	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1361	-	-	1261	-	-	419	422	739	428	430	844
Stage 1	-	-	-	-	-	-	652	621	-	802	736	-
Stage 2	-	-	-	-	-	-	780	723	-	645	619	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1355	-	-	1255	-	-	380	403	732	401	411	836
Mov Cap-2 Maneuver	-	-	-	-	-	-	380	403	-	401	411	-
Stage 1	-	-	-	-	-	-	628	598	-	772	729	-
Stage 2	-	-	-	-	-	-	732	716	-	606	596	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	13.4	12.5
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	456	1355	-	-	1255	-	-	539
HCM Lane V/C Ratio	0.056	0.026	-	-	0.004	-	-	0.115
HCM Control Delay (s)	13.4	7.7	0	-	7.9	0	-	12.5
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.2	0.1	-	-	0	-	-	0.4



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	138	20	41	43	3	9	9	74	1	7	3
Future Volume (vph)	3	138	20	41	43	3	9	9	74	1	7	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

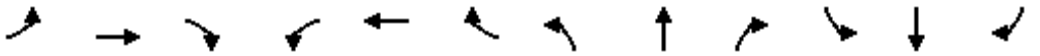
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	138	20	41	43	3	9	9	74	1	7	3
Future Vol, veh/h	3	138	20	41	43	3	9	9	74	1	7	3
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	153	22	46	48	3	10	10	82	1	8	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	56	0	0	180	0	0	327	323	174	368	333	60
Stage 1	-	-	-	-	-	-	175	175	-	147	147	-
Stage 2	-	-	-	-	-	-	152	148	-	221	186	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1549	-	-	1396	-	-	626	595	869	588	587	1005
Stage 1	-	-	-	-	-	-	827	754	-	856	775	-
Stage 2	-	-	-	-	-	-	850	775	-	781	746	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1542	-	-	1389	-	-	595	568	861	506	560	995
Mov Cap-2 Maneuver	-	-	-	-	-	-	595	568	-	506	560	-
Stage 1	-	-	-	-	-	-	821	749	-	850	745	-
Stage 2	-	-	-	-	-	-	806	745	-	692	741	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	3.6	10.3	10.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	787	1542	-	-	1389	-	-	629
HCM Lane V/C Ratio	0.13	0.002	-	-	0.033	-	-	0.019
HCM Control Delay (s)	10.3	7.3	0	-	7.7	0	-	10.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.4	0	-	-	0.1	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	72	3	16	3	90	0	0	61	11
Future Volume (vph)	0	0	0	72	3	16	3	90	0	0	61	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

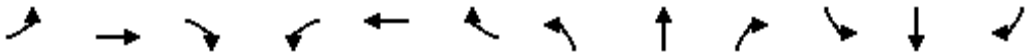
Intersection	
Int Delay, s/veh	3.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	72	3	16	3	90	0	0	61	11
Future Vol, veh/h	0	0	0	72	3	16	3	90	0	0	61	11
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	94	4	21	4	117	0	0	79	14

Major/Minor	Minor1			Major1			Major2		
Conflicting Flow All	204	204	117	79	0	-	-	-	0
Stage 1	125	125	-	-	-	-	-	-	-
Stage 2	79	79	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	784	692	935	1519	-	0	0	-	-
Stage 1	901	792	-	-	-	0	0	-	-
Stage 2	944	829	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	782	0	935	1519	-	-	-	-	-
Mov Cap-2 Maneuver	782	0	-	-	-	-	-	-	-
Stage 1	898	0	-	-	-	-	-	-	-
Stage 2	944	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.1	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1519	-	782	935	-	-
HCM Lane V/C Ratio	0.003	-	0.125	0.022	-	-
HCM Control Delay (s)	7.4	-	10.3	8.9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.4	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	1	39	0	0	0	0	28	48	17	116	0
Future Volume (vph)	65	1	39	0	0	0	0	28	48	17	116	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	3.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	65	1	39	0	0	0	0	28	48	17	116	0
Future Vol, veh/h	65	1	39	0	0	0	0	28	48	17	116	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	98	2	59	0	0	0	0	42	73	26	176	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	270	270	176	-	0	0	42	0	0
Stage 1	228	228	-	-	-	-	-	-	-
Stage 2	42	42	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	719	636	867	0	-	-	1567	-	0
Stage 1	810	715	-	0	-	-	-	-	0
Stage 2	980	860	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	706	0	867	-	-	-	1567	-	-
Mov Cap-2 Maneuver	706	0	-	-	-	-	-	-	-
Stage 1	810	0	-	-	-	-	-	-	-
Stage 2	962	0	-	-	-	-	-	-	-

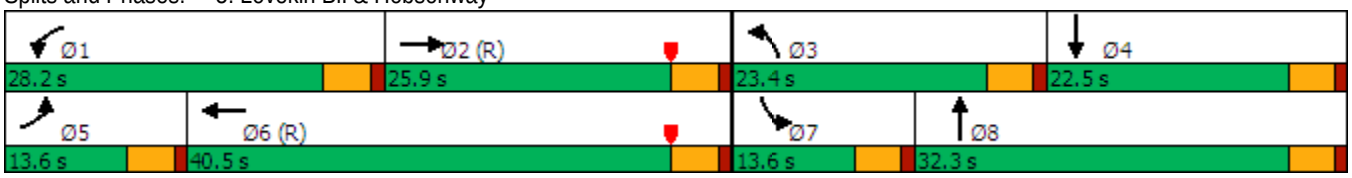
Approach	EB	NB	SB
HCM Control Delay, s	10.4	0	0.9
HCM LOS	B		

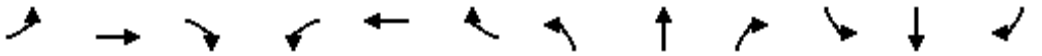
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	706	867	1567	-
HCM Lane V/C Ratio	-	-	0.142	0.068	0.016	-
HCM Control Delay (s)	-	-	10.9	9.5	7.3	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.5	0.2	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	51	297	108	205	197	68	156	246	267	49	125	29
Future Volume (vph)	51	297	108	205	197	68	156	246	267	49	125	29
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	13.6	25.9		28.2	40.5		23.4	32.3		13.6	22.5	
Total Split (%)	13.6%	25.9%		28.2%	40.5%		23.4%	32.3%		13.6%	22.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	51	297	108	205	197	68	156	246	267	49	125	29
Future Volume (veh/h)	51	297	108	205	197	68	156	246	267	49	125	29
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	62	362	132	250	240	83	190	300	326	60	152	35
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	80	863	310	287	1183	398	225	494	438	77	562	126
Arrive On Green	0.04	0.34	0.34	0.16	0.45	0.45	0.13	0.28	0.28	0.04	0.20	0.20
Sat Flow, veh/h	1781	2558	919	1781	2608	878	1781	1777	1576	1781	2879	646
Grp Volume(v), veh/h	62	250	244	250	161	162	190	300	326	60	92	95
Grp Sat Flow(s),veh/h/ln	1781	1777	1700	1781	1777	1709	1781	1777	1576	1781	1777	1748
Q Serve(g_s), s	3.4	10.8	11.1	13.7	5.5	5.7	10.4	14.7	18.8	3.3	4.4	4.6
Cycle Q Clear(g_c), s	3.4	10.8	11.1	13.7	5.5	5.7	10.4	14.7	18.8	3.3	4.4	4.6
Prop In Lane	1.00		0.54	1.00		0.51	1.00		1.00	1.00		0.37
Lane Grp Cap(c), veh/h	80	599	573	287	806	775	225	494	438	77	347	341
V/C Ratio(X)	0.77	0.42	0.43	0.87	0.20	0.21	0.84	0.61	0.74	0.77	0.27	0.28
Avail Cap(c_a), veh/h	162	599	573	422	806	775	337	494	438	162	347	341
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.3	25.5	25.6	40.9	16.4	16.5	42.7	31.4	32.9	47.3	34.2	34.2
Incr Delay (d2), s/veh	14.6	2.1	2.3	12.5	0.6	0.6	11.8	5.5	10.9	15.0	1.9	2.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	4.8	4.7	6.9	2.3	2.3	5.2	6.9	8.3	1.8	2.1	2.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	61.8	27.7	28.0	53.4	17.0	17.1	54.5	36.8	43.8	62.3	36.0	36.3
LnGrp LOS	E	C	C	D	B	B	D	D	D	E	D	D
Approach Vol, veh/h		556			573			816			247	
Approach Delay, s/veh		31.6			32.9			43.7			42.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	20.6	38.2	17.1	24.0	9.0	49.9	8.8	32.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	23.7	21.4	18.9	18.0	9.1	36.0	9.1	27.8
Max Q Clear Time (g_c+I1), s	15.7	13.1	12.4	6.6	5.4	7.7	5.3	20.8
Green Ext Time (p_c), s	0.4	1.8	0.3	0.7	0.0	1.9	0.0	2.2

Intersection Summary	
HCM 6th Ctrl Delay	37.7
HCM 6th LOS	D

APPENDIX 3.3:

TRAFFIC SIGNAL WARRANT ANALYSIS WORKSHEETS

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EXISTING (2021)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

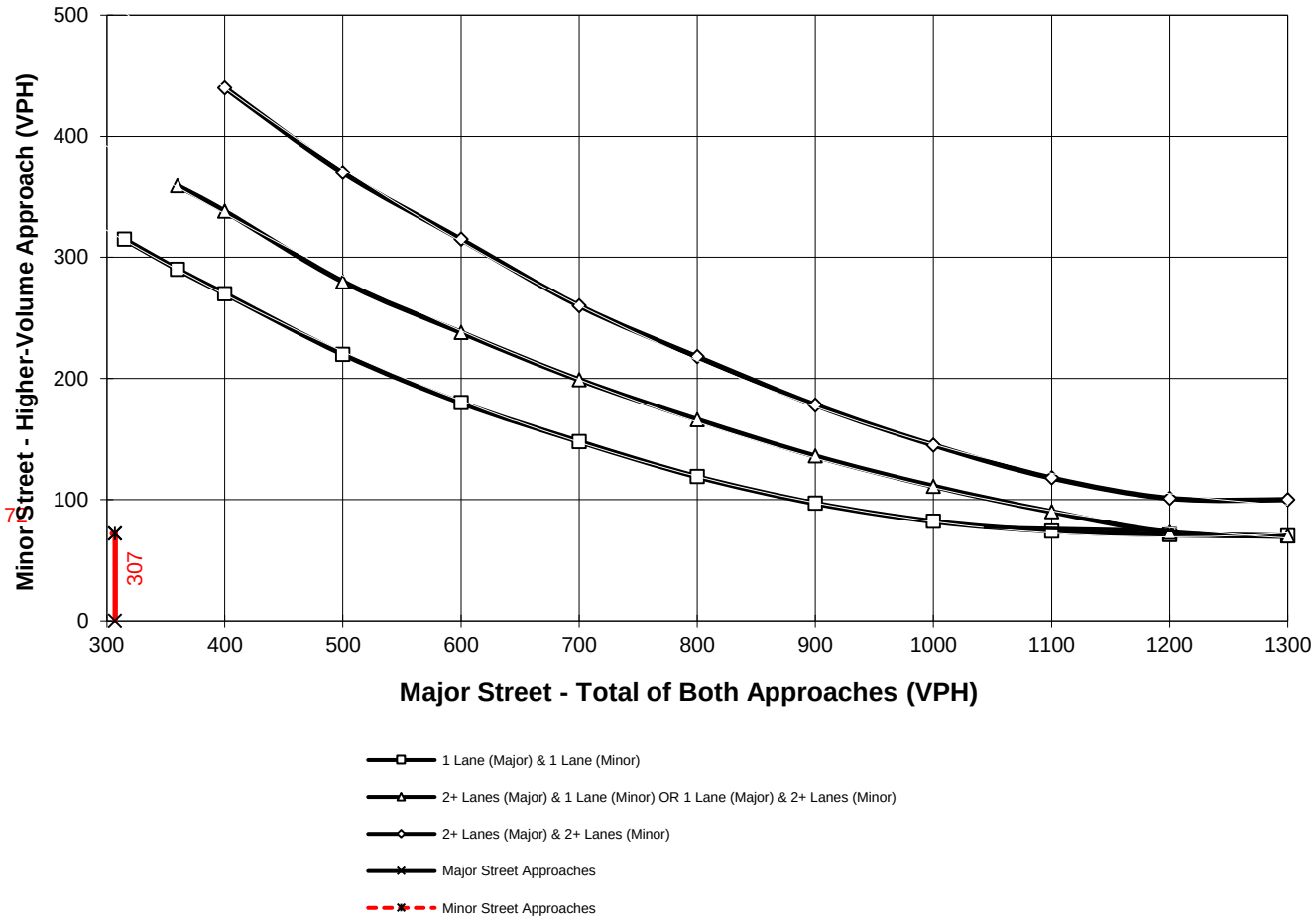
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **307**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **72**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

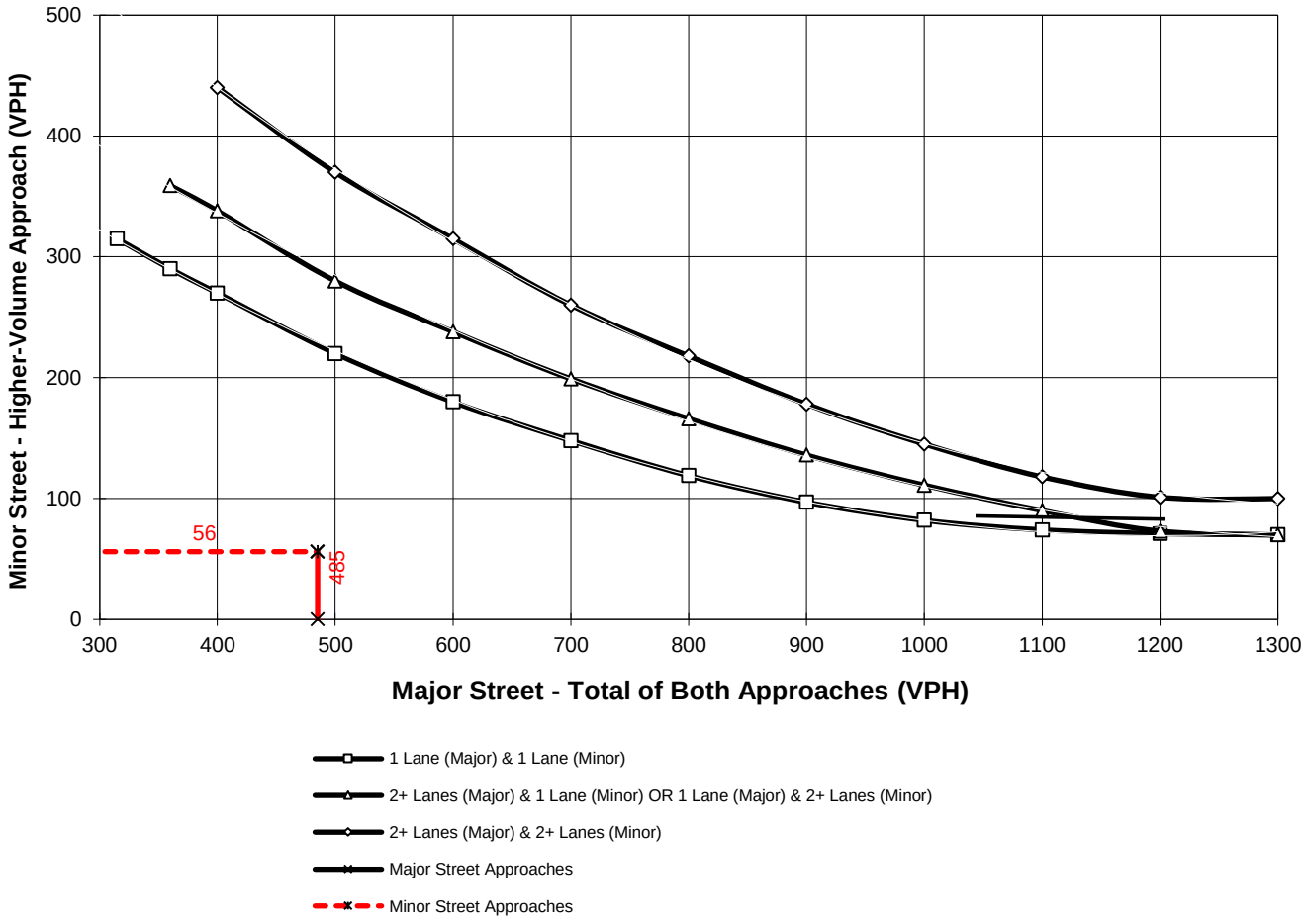
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **485**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **56**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

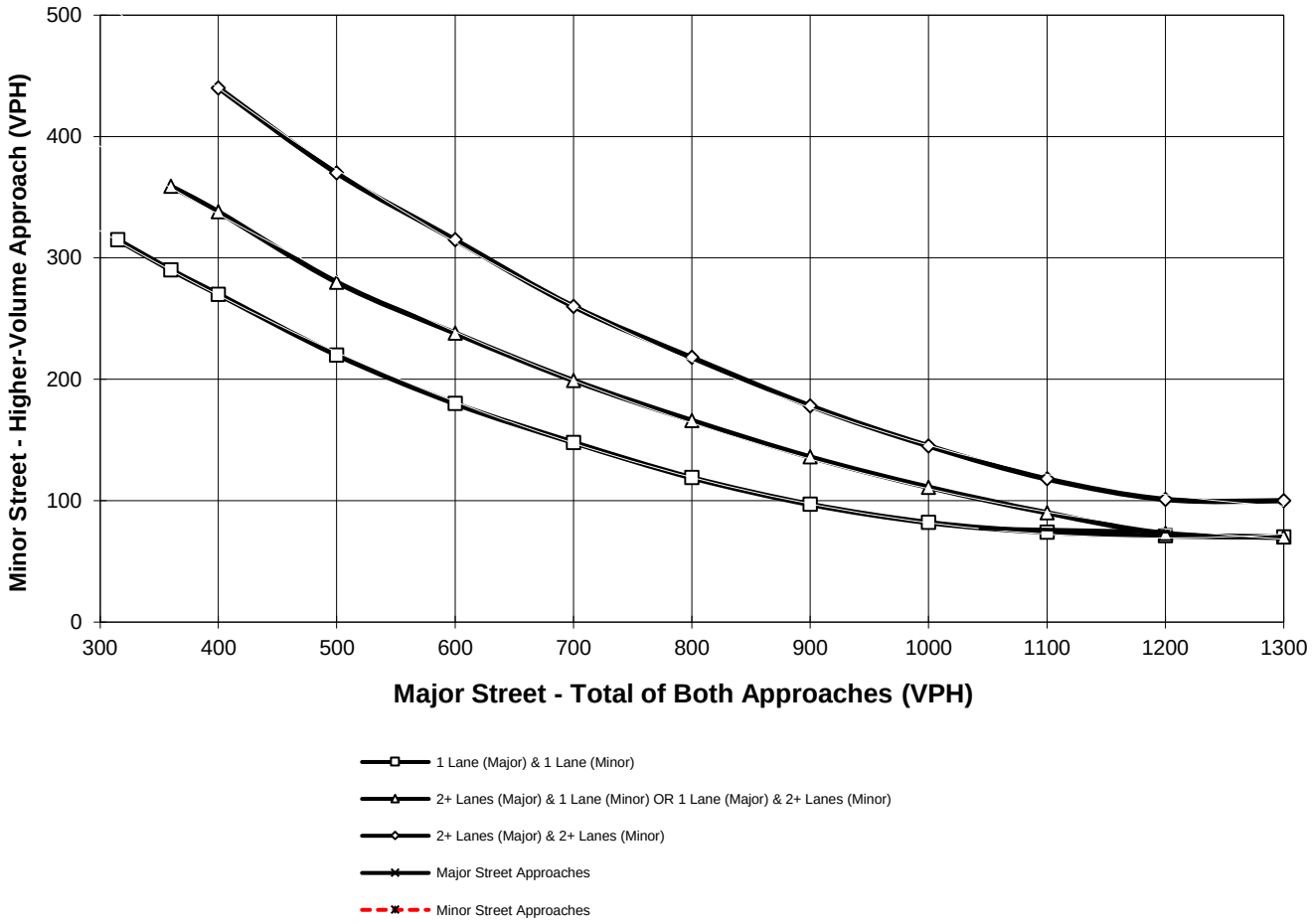
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **163**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **65**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14135\Warrants\01 - Existing\02_AM.xls\Fig 4C-4 (Rural Peak)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

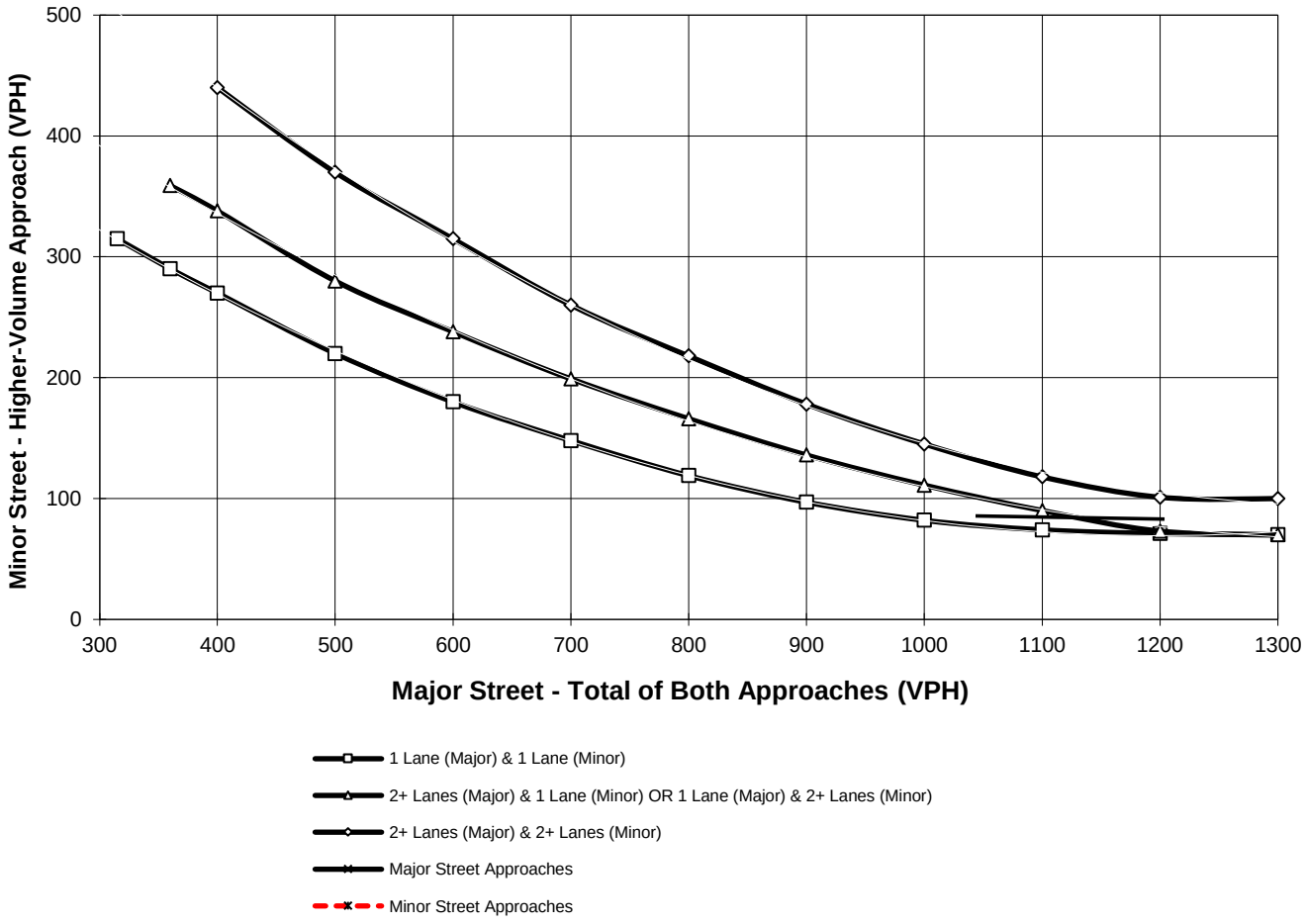
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **248**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **92**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14135\Warrants\01 - Existing\02_PM.xls\Fig 4C-4 (Rural Peak)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

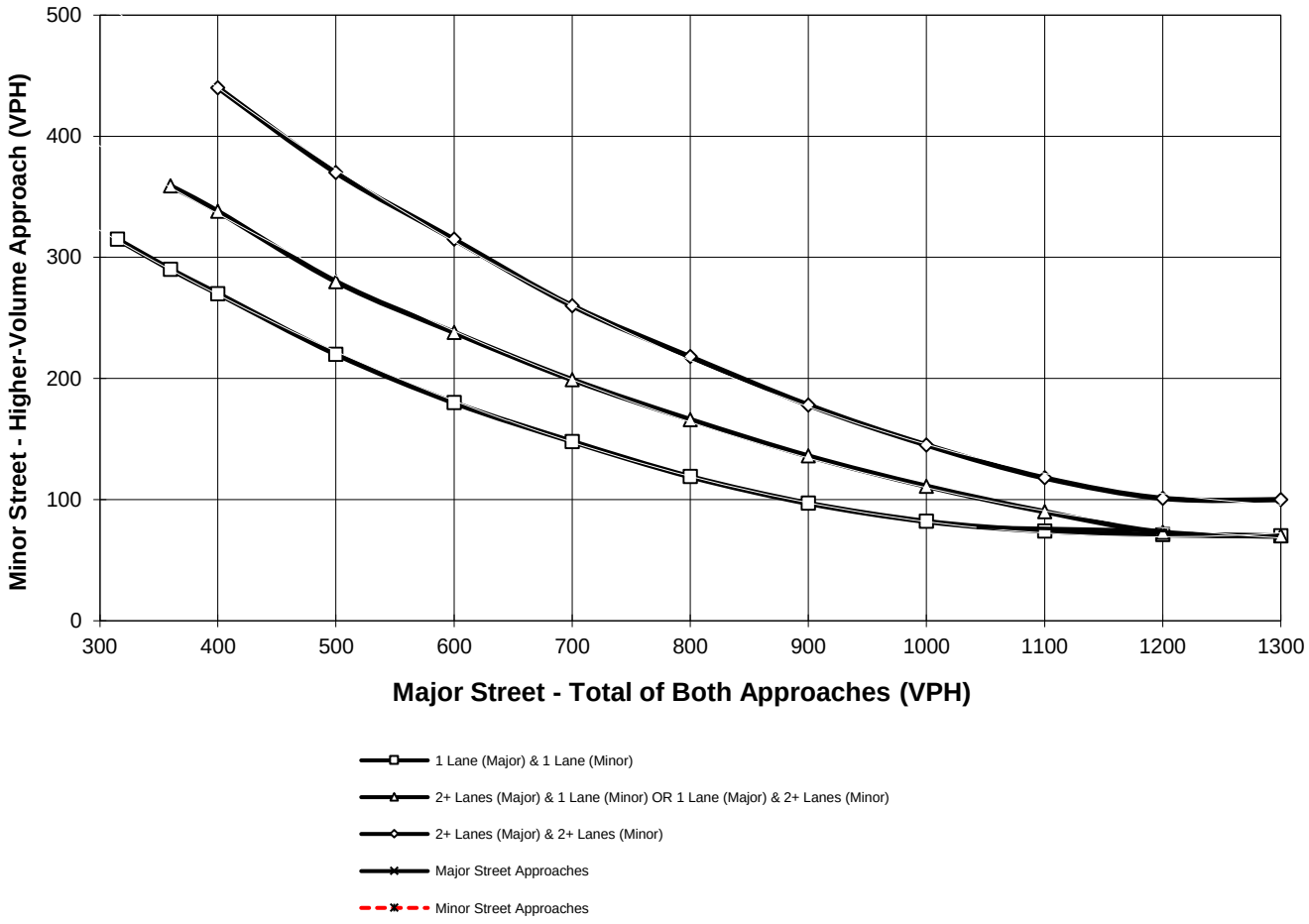
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **187**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 WB Ramps**
High Volume Approach (VPH) = **80**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

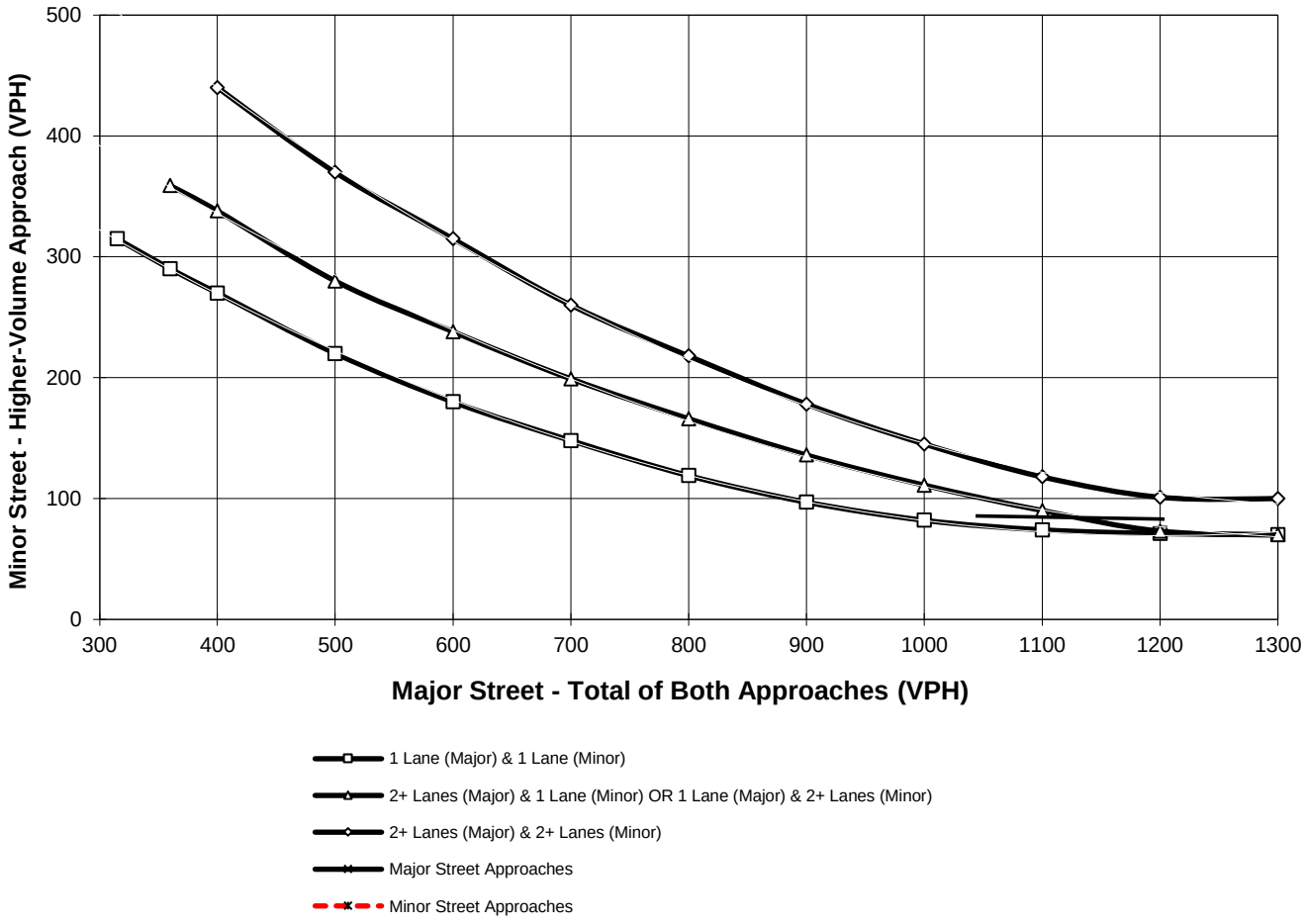
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) PM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **165**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 WB Ramps**
High Volume Approach (VPH) = **91**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

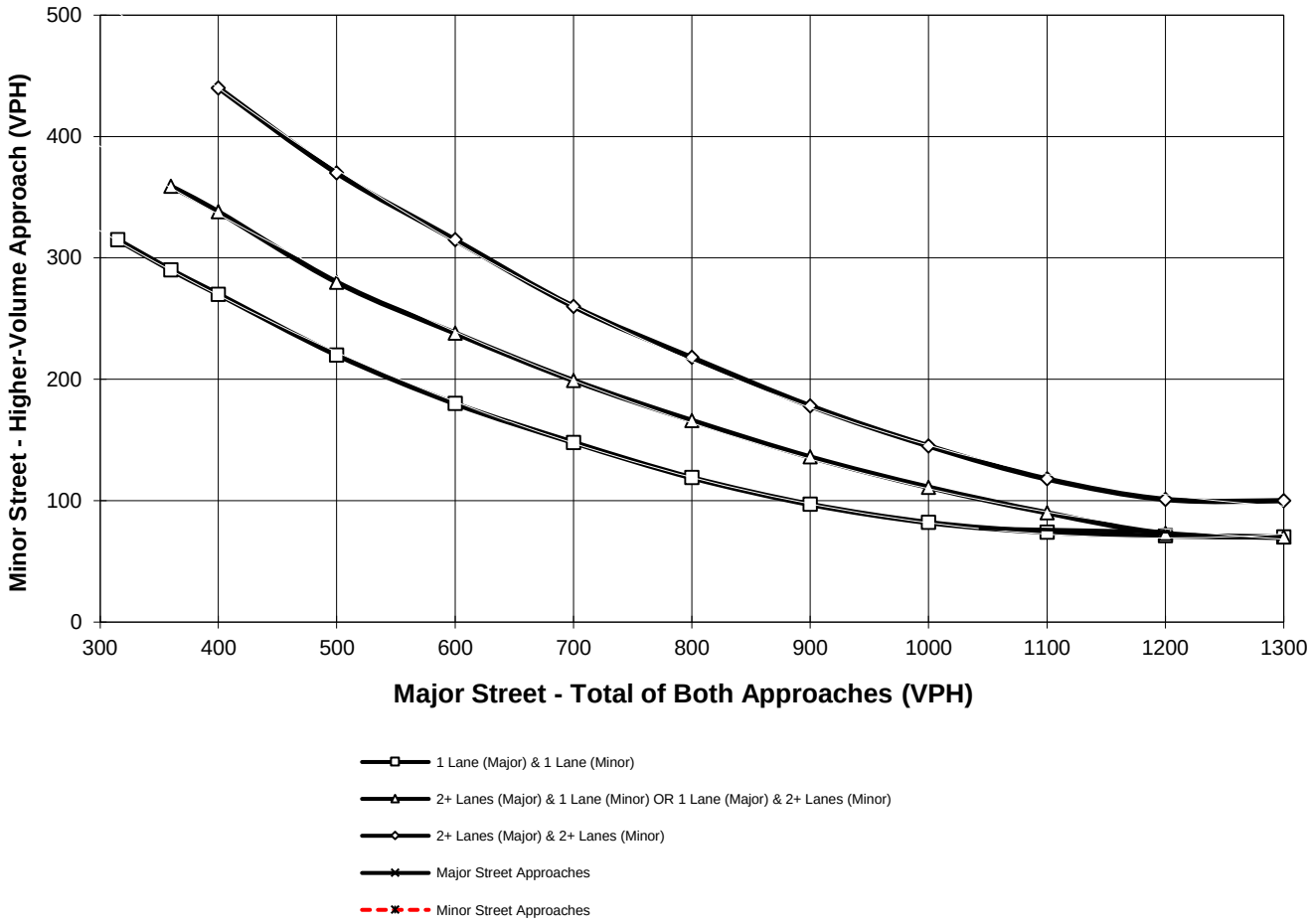
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **222**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **29**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

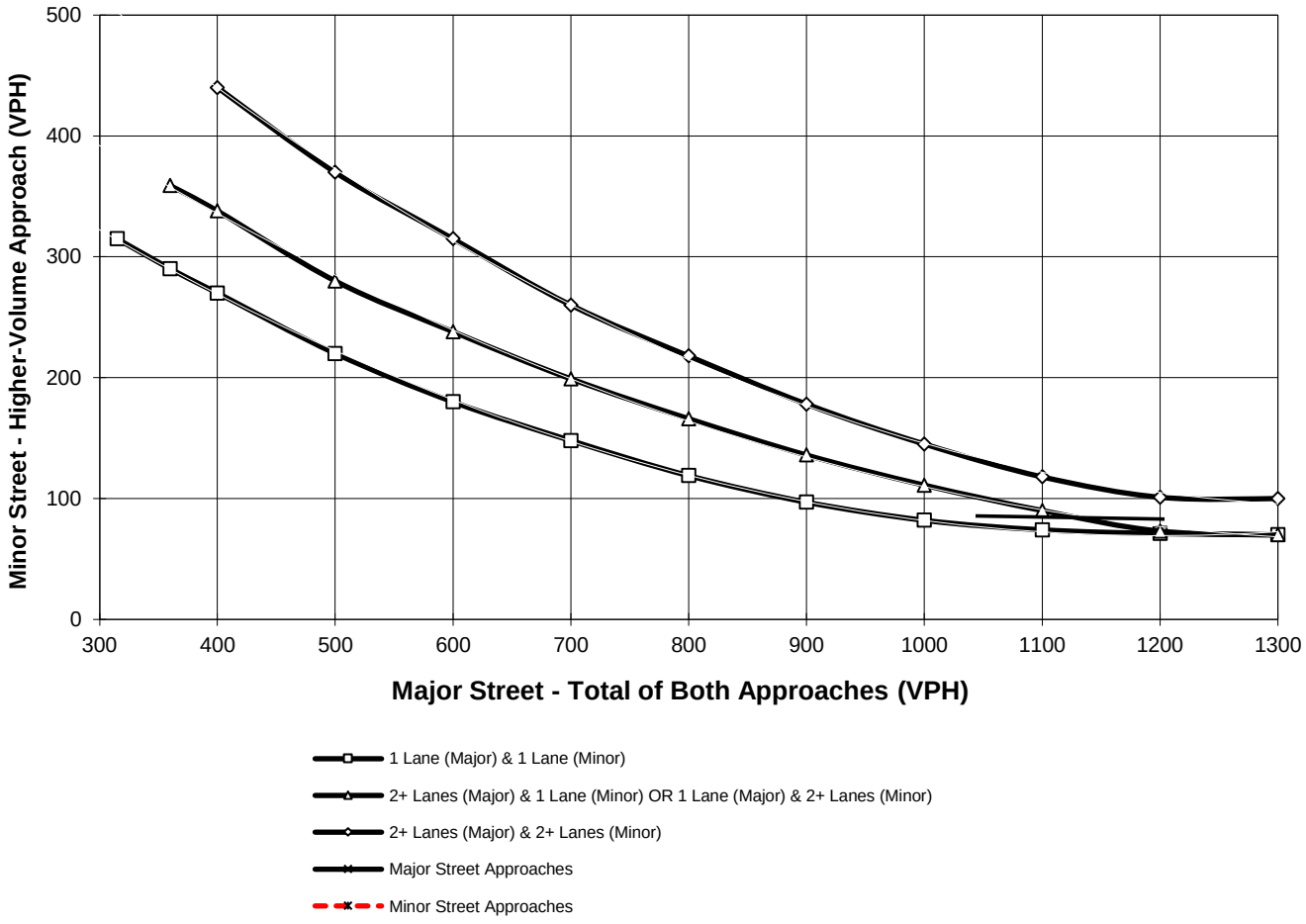
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EXISTING (2021) PM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **209**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **105**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

CUMULATIVE 5 YEAR (2026) WITH PROJECT

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

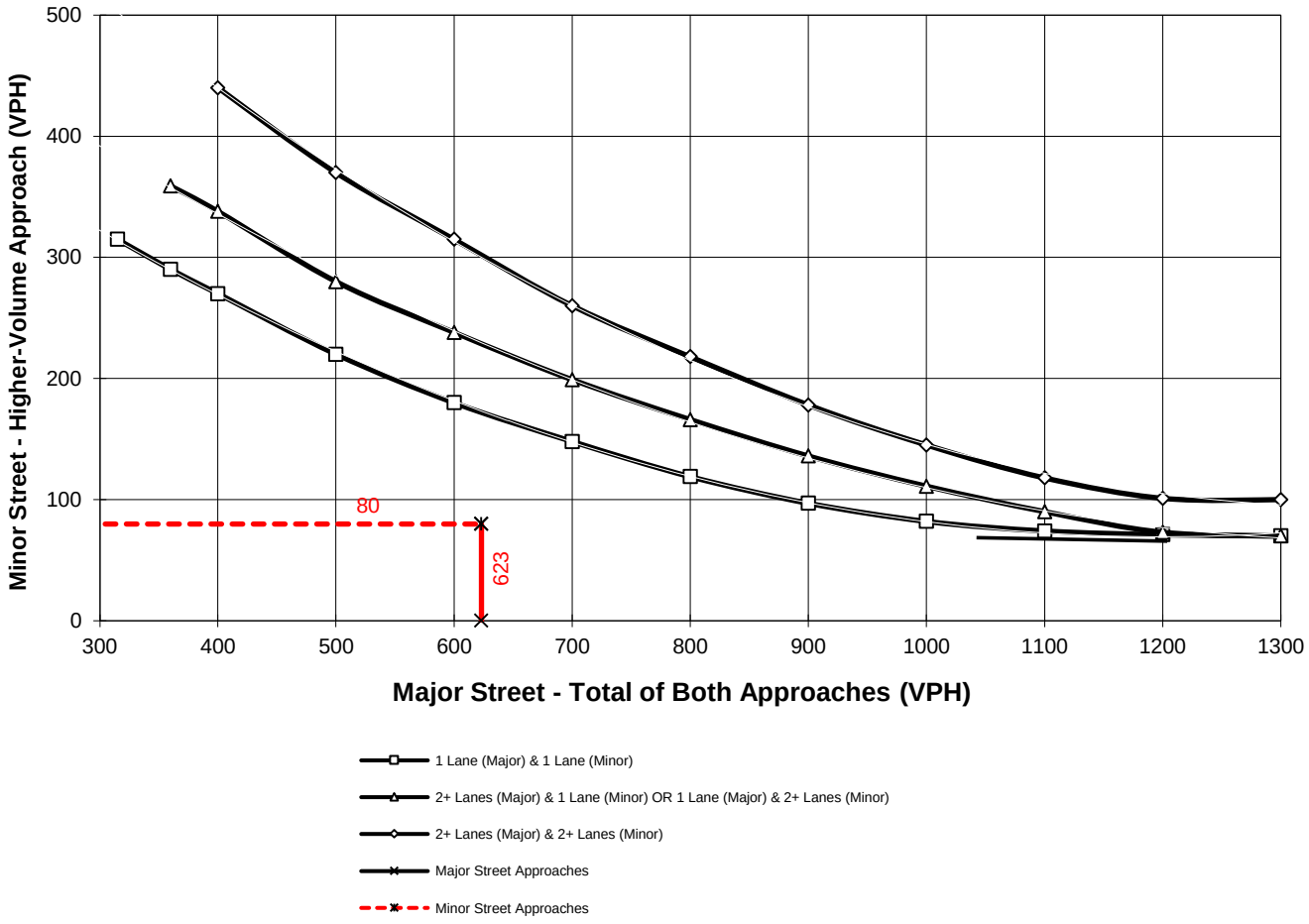
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **623**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **80**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

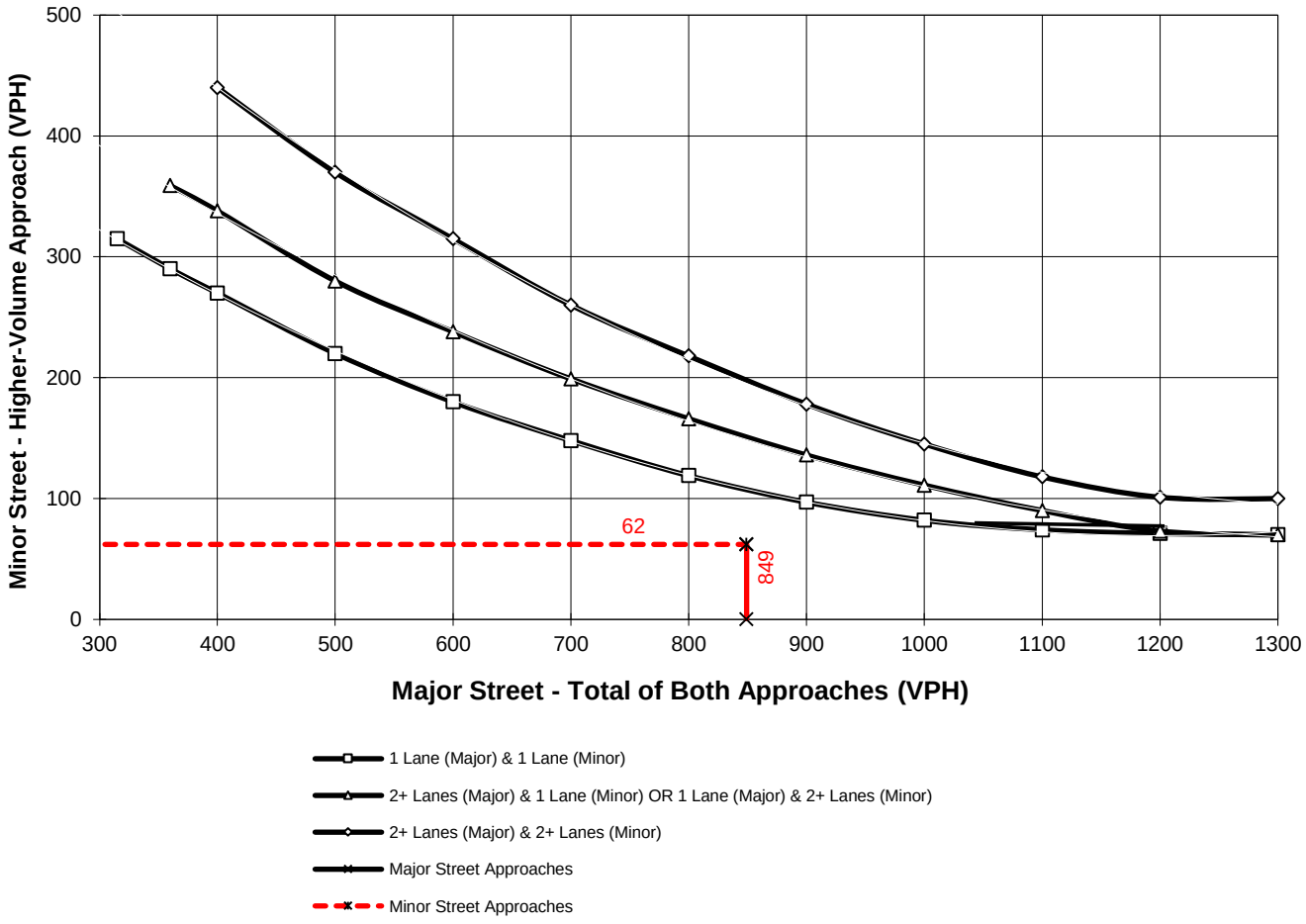
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **849**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **62**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

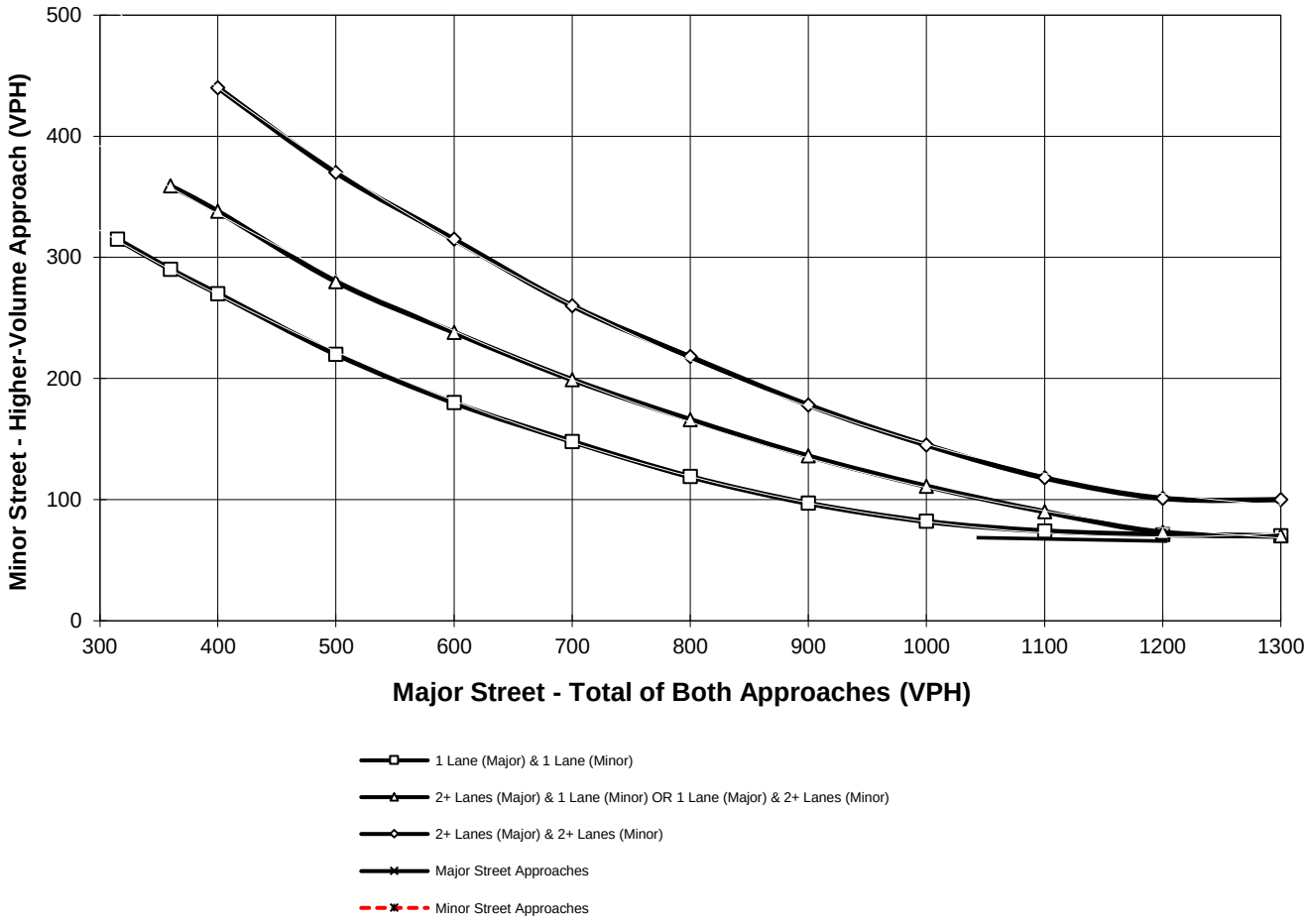
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **277**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **260**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

F:\UXRjobs_14100-14500\14135\Warrants\03 - EAPC\02_AM.xls\Fig 4C-4 (Rural Peak)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

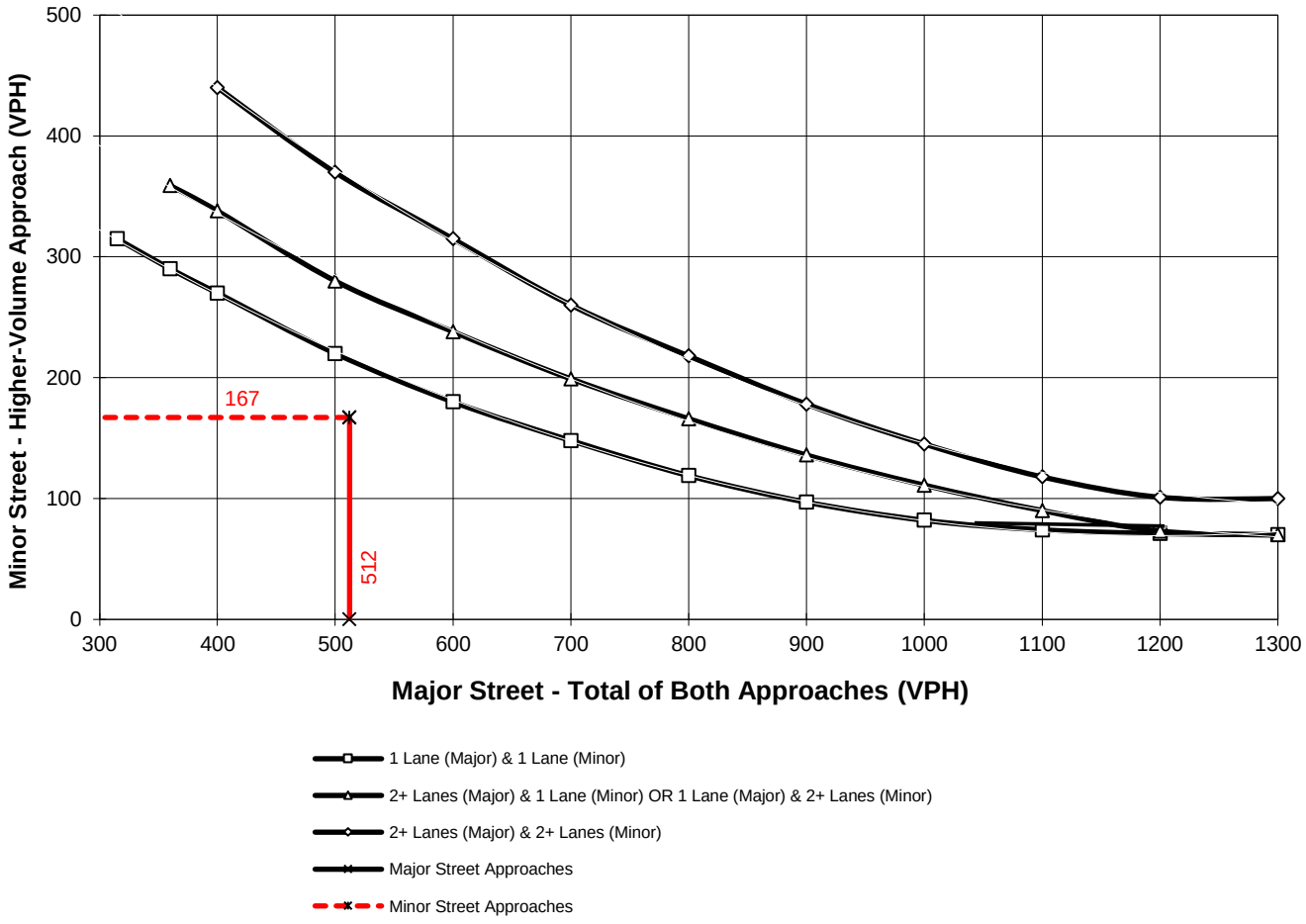
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **512**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **167**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

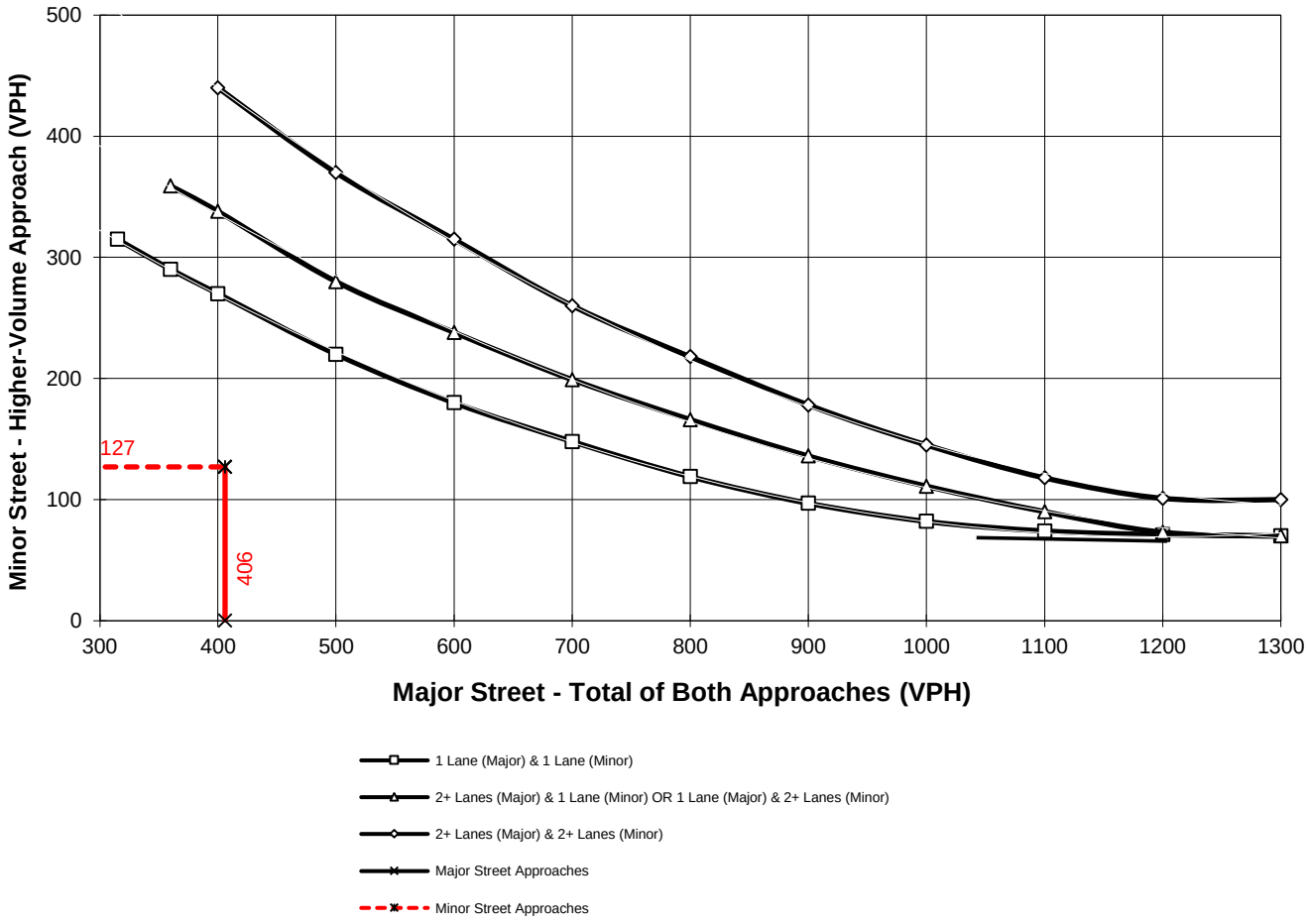
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **406**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 WB Ramps**
High Volume Approach (VPH) = **127**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

F:\UXRjobs_14100-14500\14135\Warrants\03 - EAPC\03_AM.xls\Fig 4C-4 (Rural Peak)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

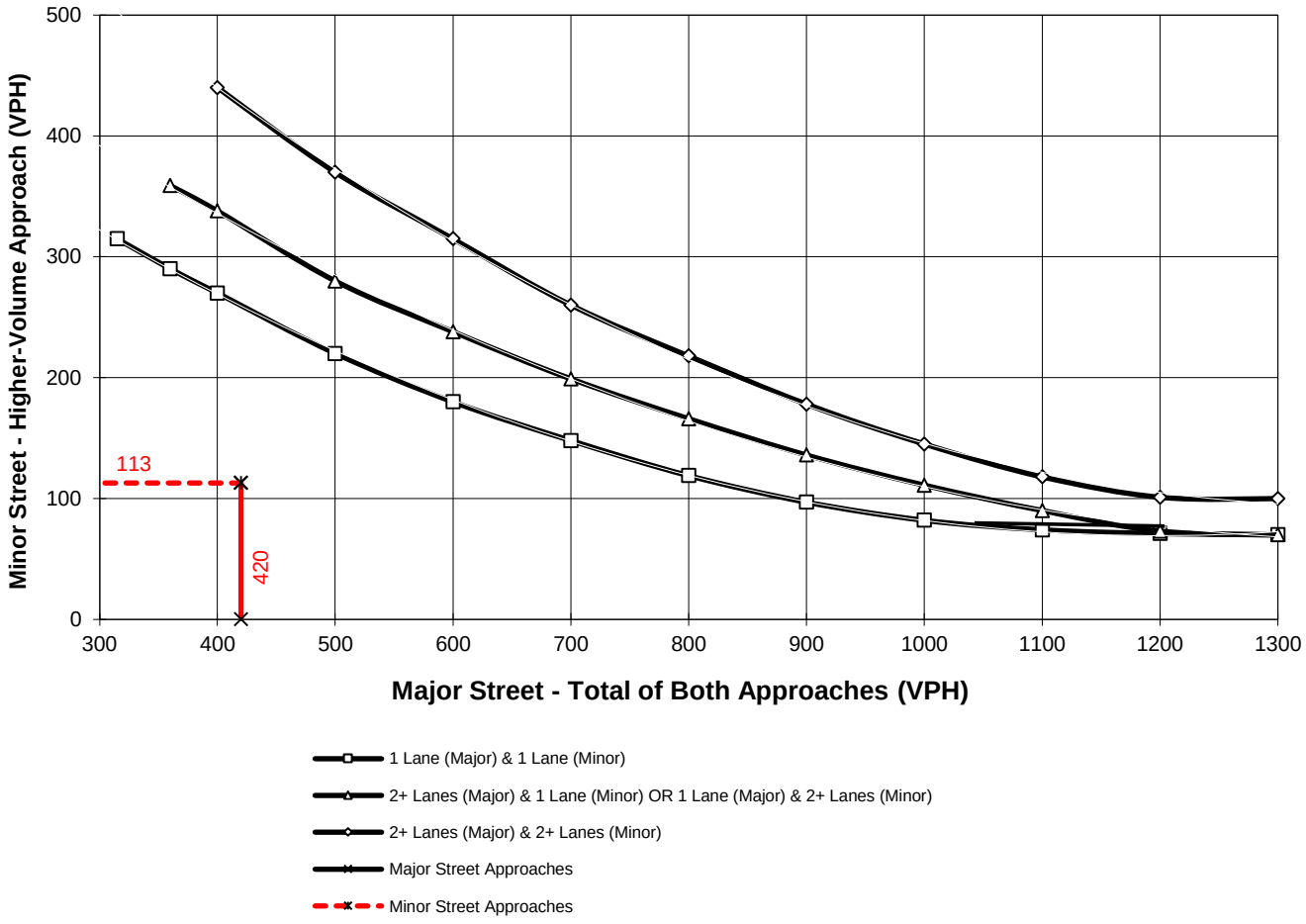
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) PM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.** Total of Both Approaches (VPH) = **420**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 WB Ramps** High Volume Approach (VPH) = **113**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

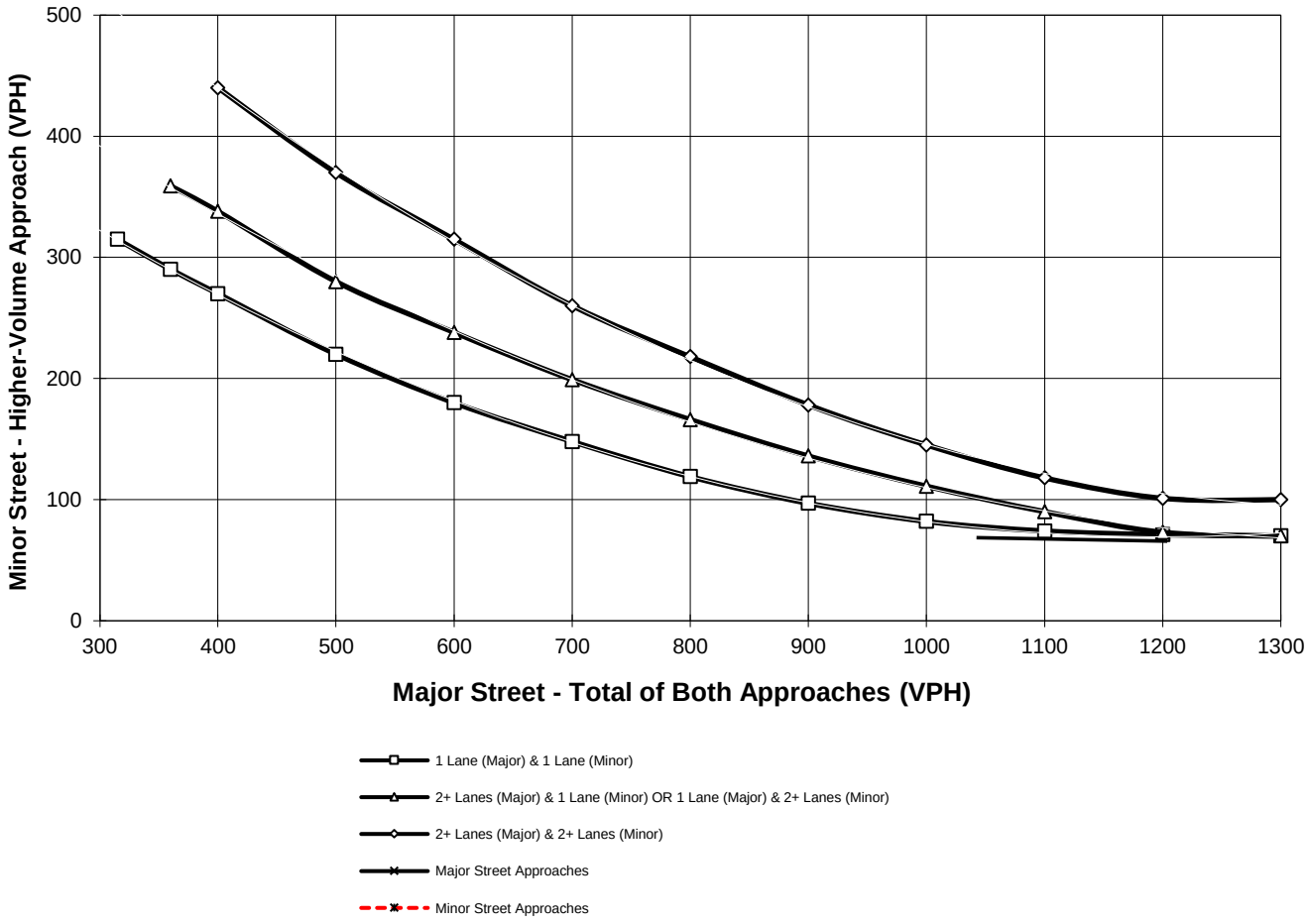
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **279**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **162**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

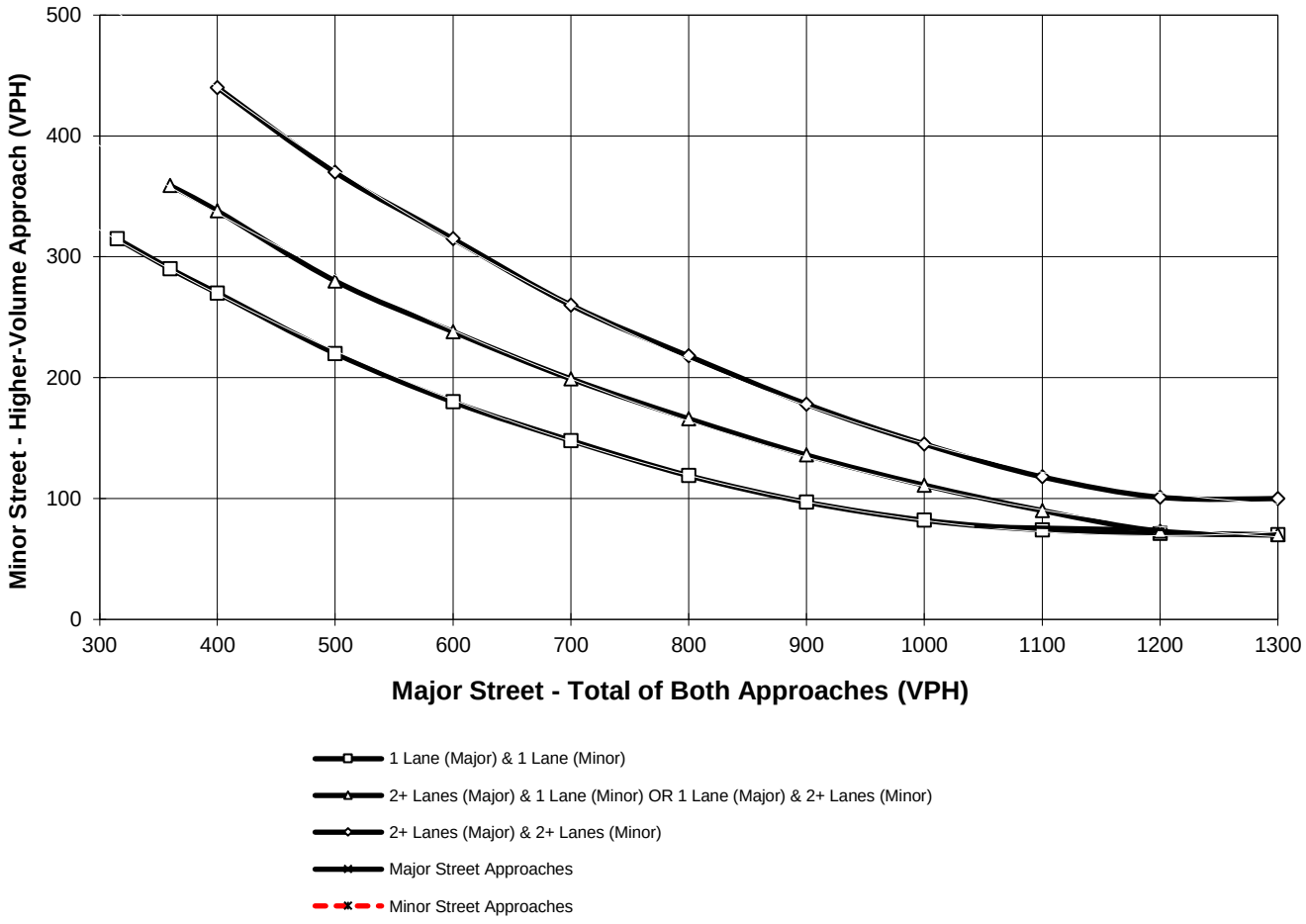
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **EAPC (FINAL) PM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **296**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **162**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	Base2020WP
				CALC JC	DATE 01/26/22
				CHK	DATE

Jurisdiction: **City of Blythe**
Major Street: **Hobsonway** — Critical Approach Speed (Major) 45 mph
Minor Street: **Project Dwy.** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **8,044** vpd — Minor Street Future ADT = **1,140** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... [√]
or
In built up area of isolated community of < 10,000 population …….. [ ]

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Minimum Requirements ADT: Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **8,044**	1 **1,140**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach

Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches) Urban	Rural	Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only) Urban	Rural
1 **8,044**	1 **1,140**	12,000	8,400	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. **A** 68% **B** 96%

2 CONDITIONS 80%

2 CONDITIONS 80%

Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

GENERAL PLAN (2040) WITHOUT PROJECT

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

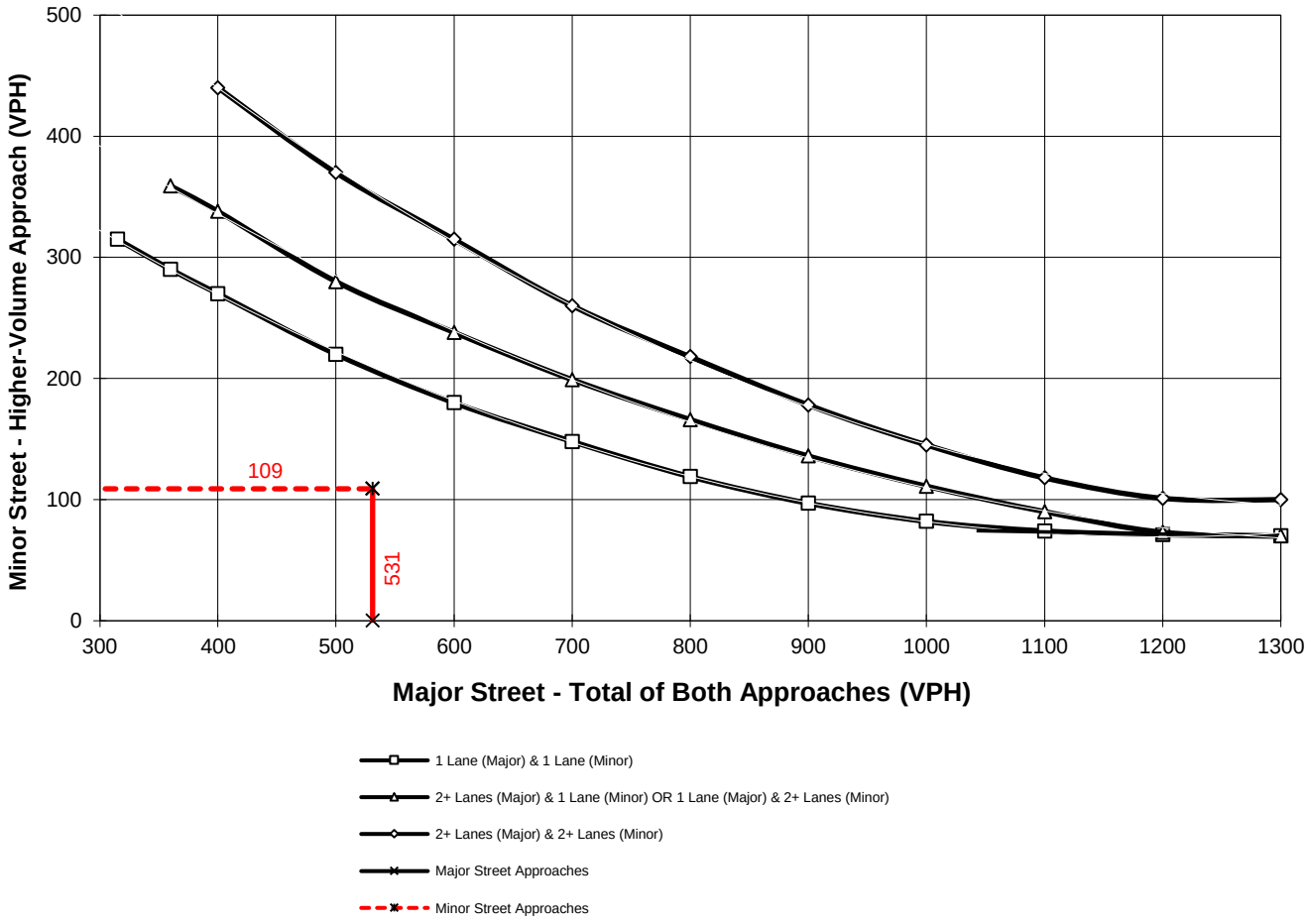
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **531**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **109**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

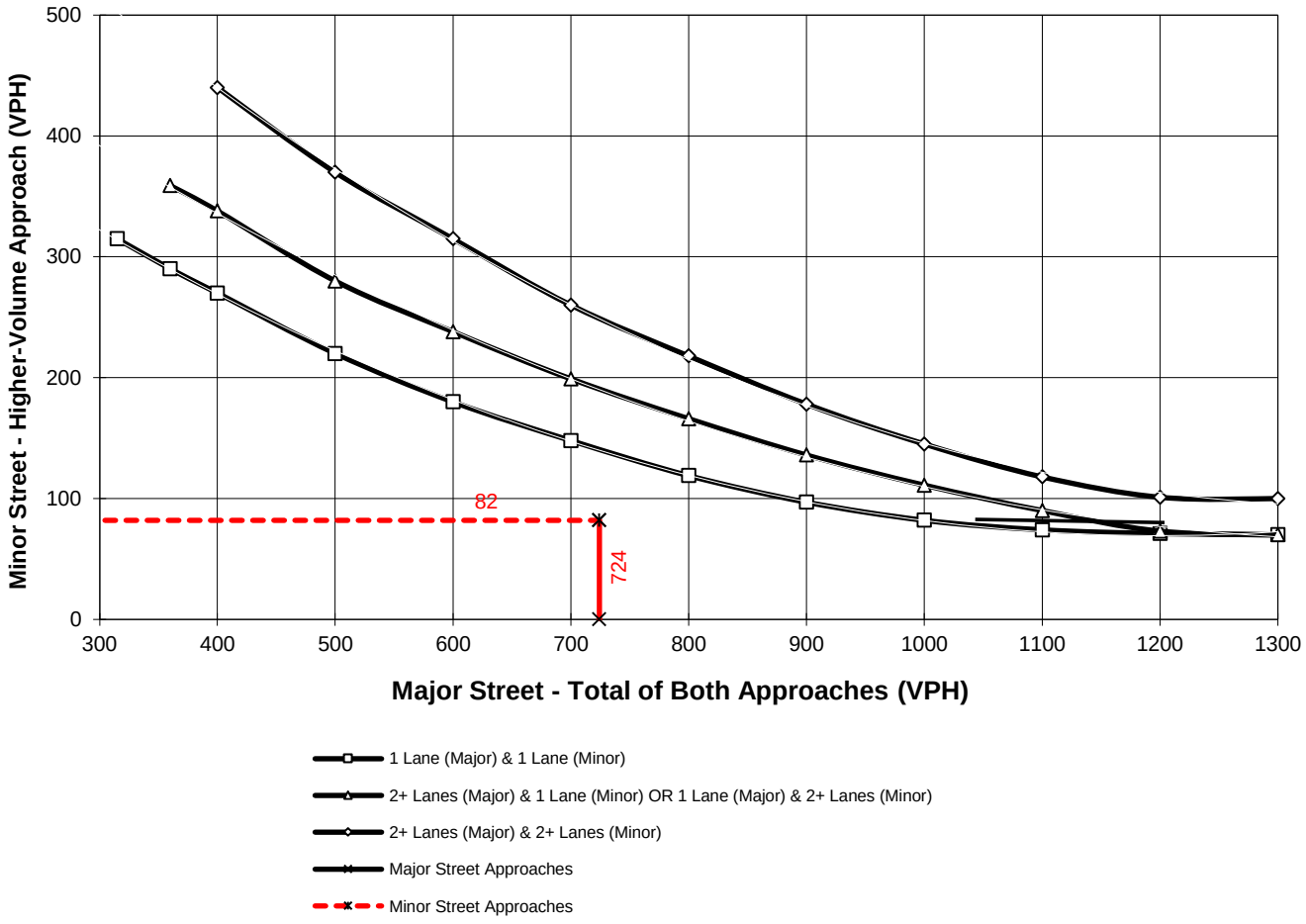
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **724**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Defrain Bl.**
High Volume Approach (VPH) = **82**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #1

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

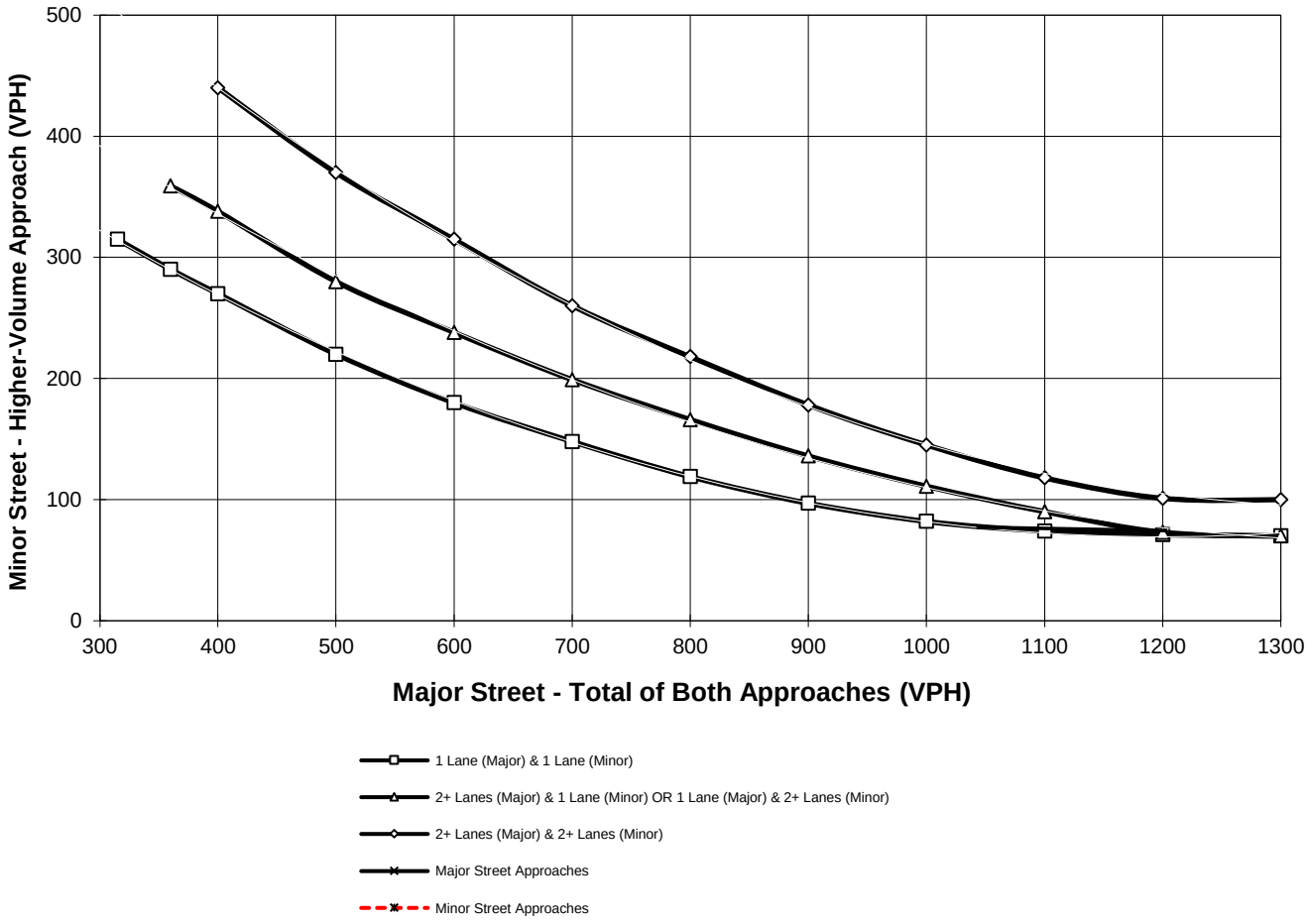
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **290**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **167**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

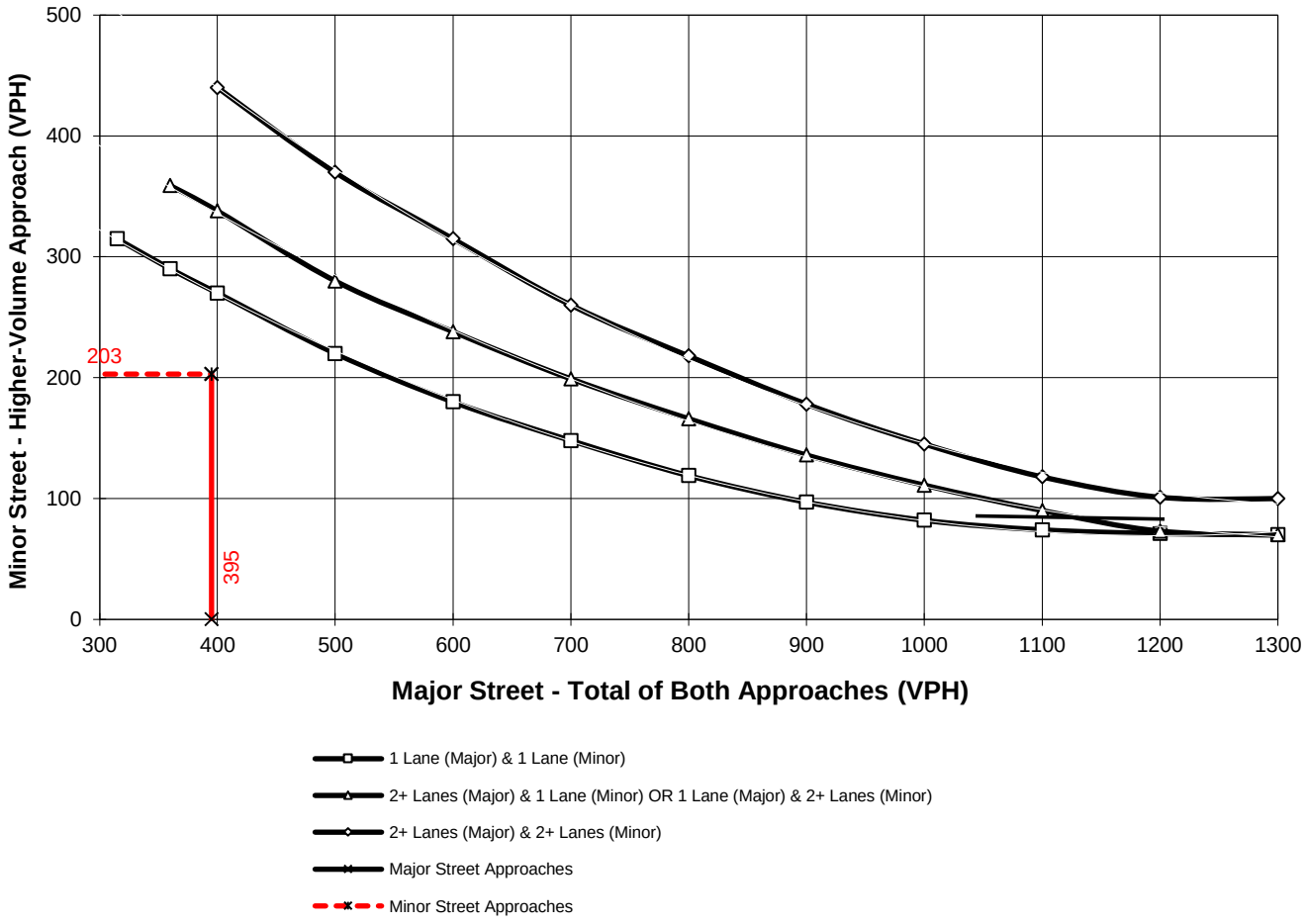
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **Hobsonway**
Total of Both Approaches (VPH) = **395**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.**
High Volume Approach (VPH) = **203**
Number of Approach Lanes Minor Street = **1**

SIGNAL WARRANT NOT SATISFIED



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #2

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

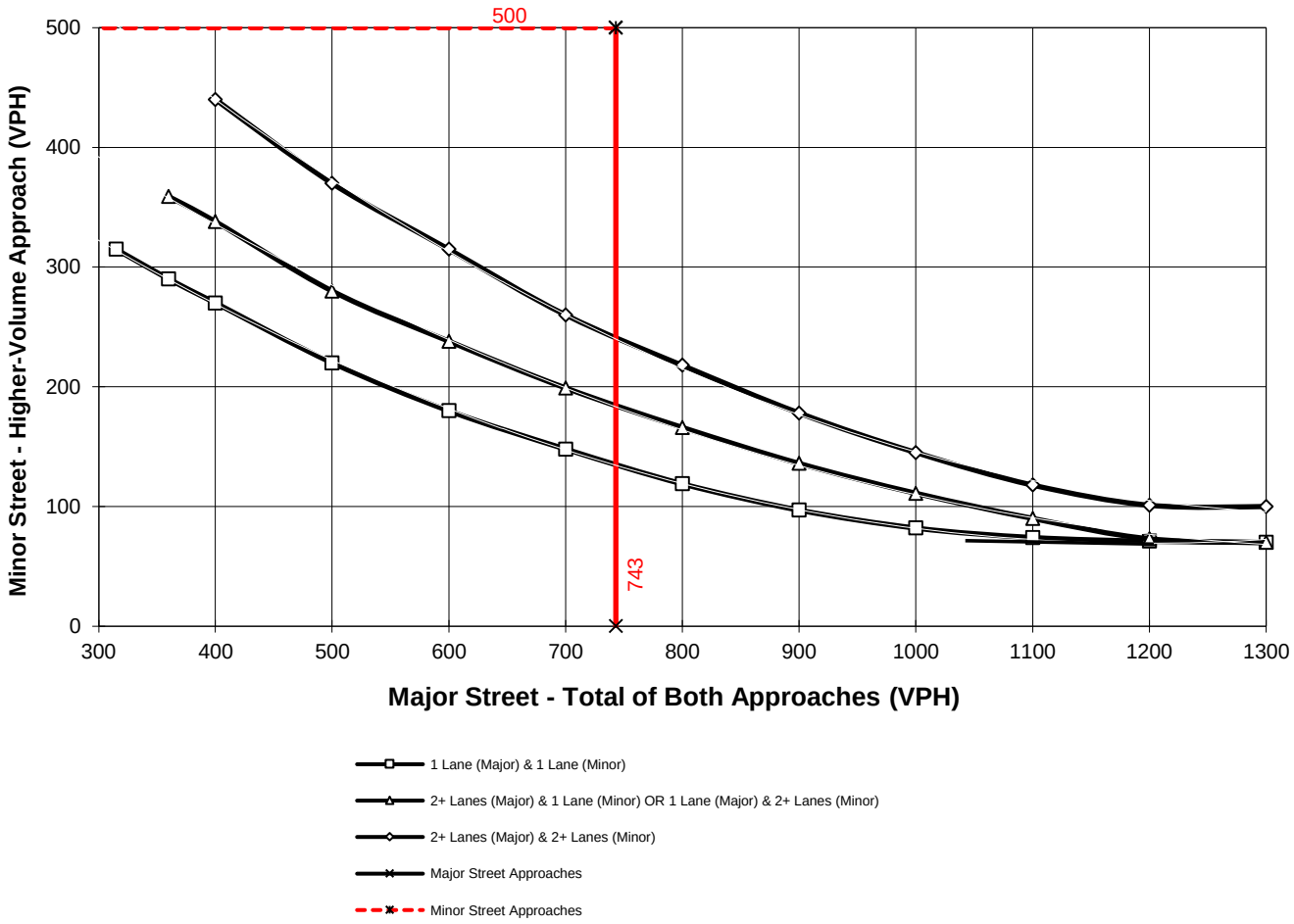
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **743**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 WB Ramps**
High Volume Approach (VPH) = **590**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

F:\UXRjobs_14100-14500\14135\Warrants\04 - 2040NP\03_AM.xls\Fig 4C-4 (Rural Peak)

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

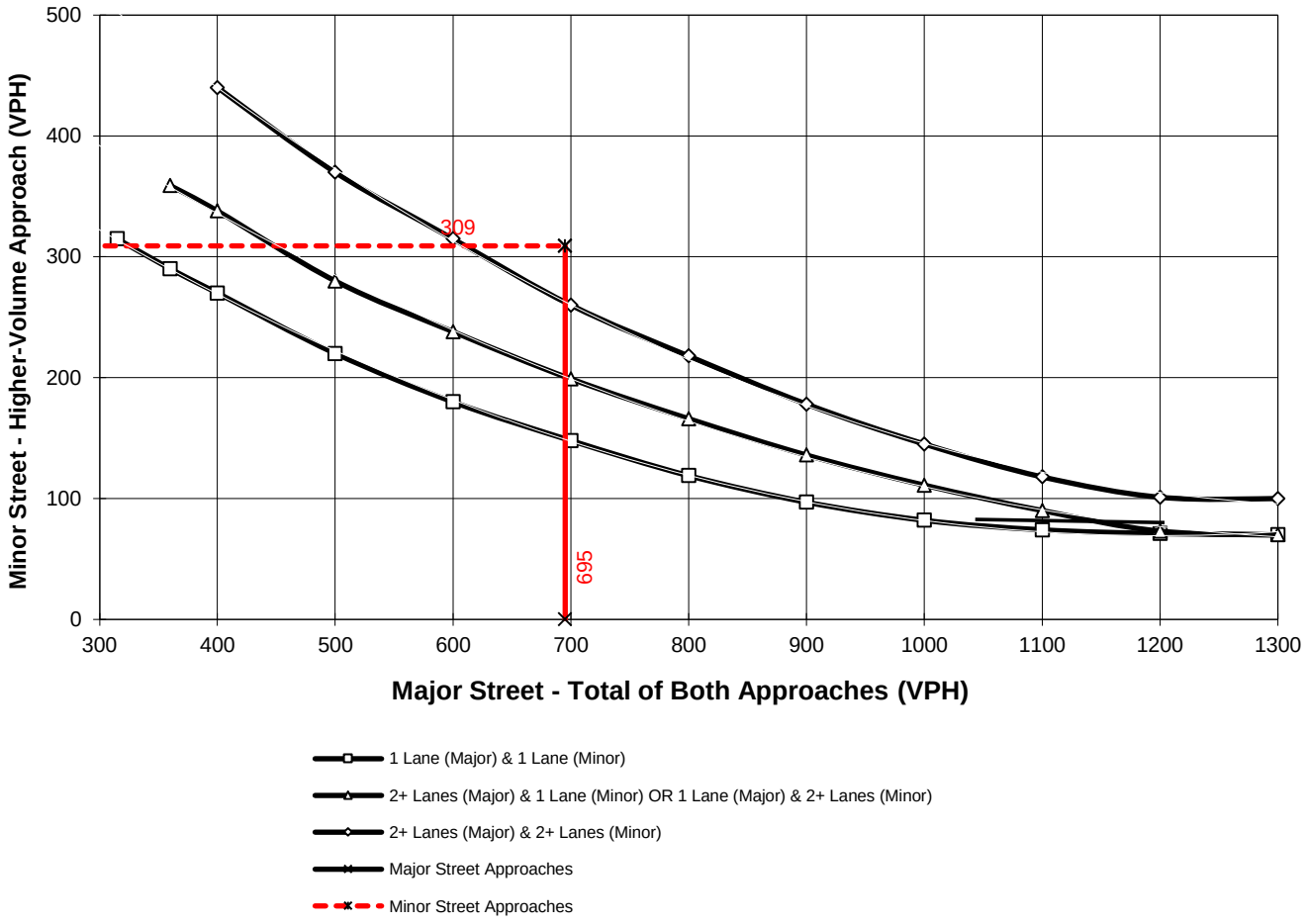
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **I-10 WB Ramps** Total of Both Approaches (VPH) = **695**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **Neighbours Bl.** High Volume Approach (VPH) = **309**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #3

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

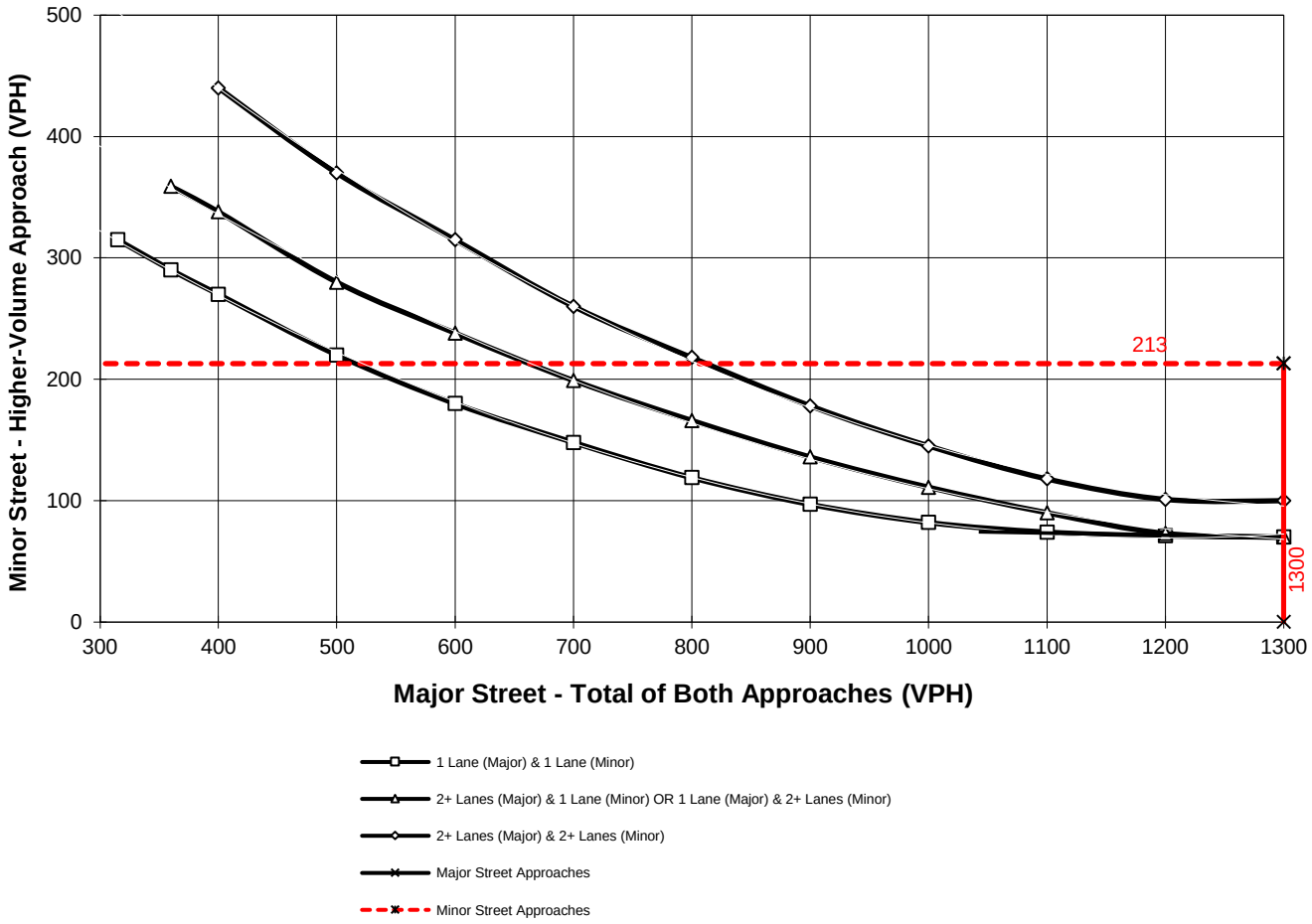
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP AM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **1,547**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **213**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

Figure 4C-4. Warrant 3, Peak Hour (70% Factor)

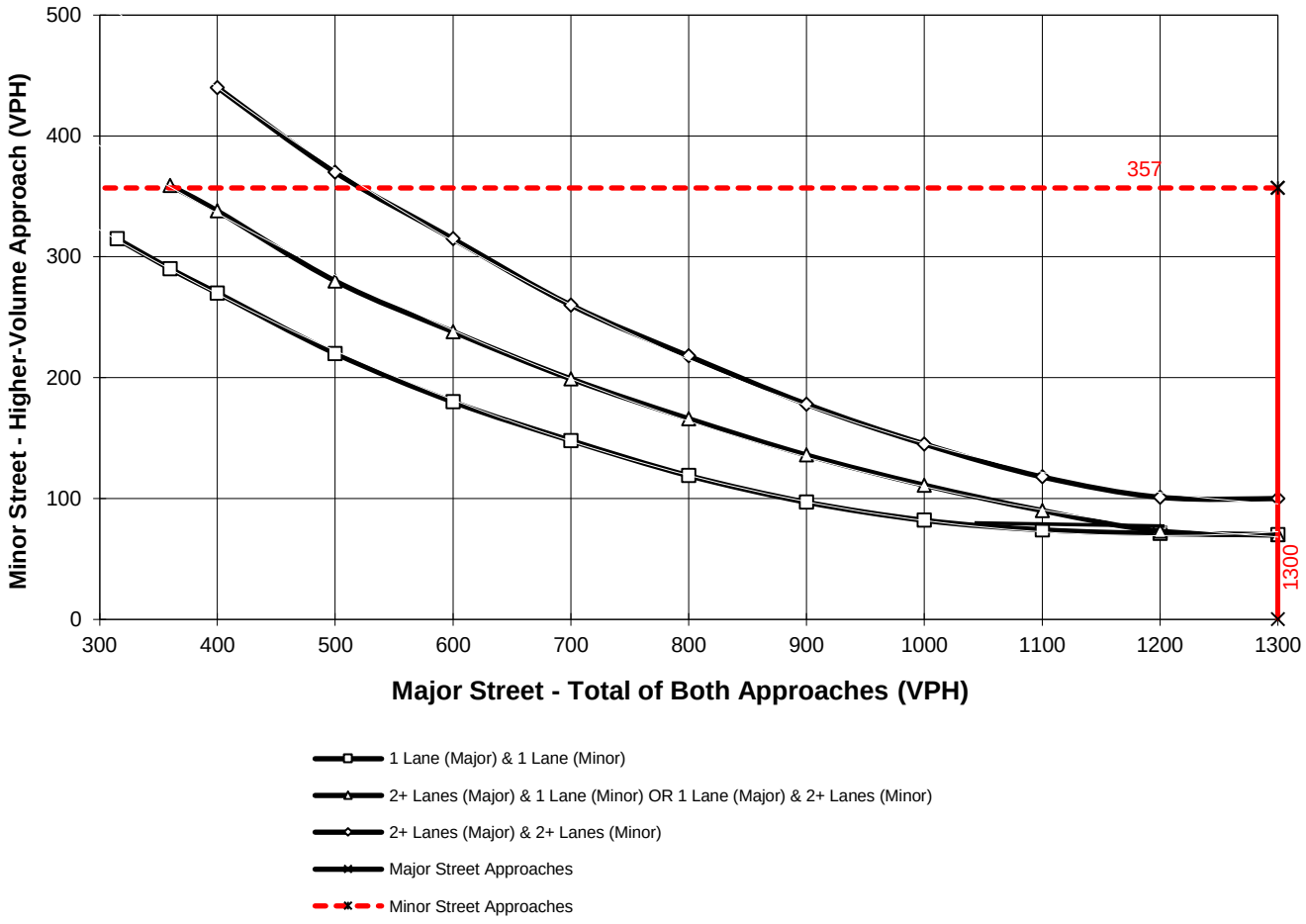
(COMMUNITY LESS THAN 10,000 POPULATION OR ABOVE 64 km/h OR ABOVE 40 mph ON MAJOR STREET)

Traffic Conditions = **2040NP PM PEAK HOUR WARRANTS**

Major Street Name = **Neighbours Bl.**
Total of Both Approaches (VPH) = **1,392**
Number of Approach Lanes Major Street = **1**

Minor Street Name = **I-10 EB Ramps**
High Volume Approach (VPH) = **357**
Number of Approach Lanes Minor Street = **1**

WARRANTED FOR A SIGNAL



*Note: 100 vph applies as the lower threshold for a minor-street approach with two or more lanes and 75 vph applies as the lower threshold for a minor-street approach with one lane

Intersection ID: #4

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Figure 4C-103 (CA). Traffic Signal Warrants Worksheet
(Average Traffic Estimate Form)

DIST	CO	RTE	PM	TRAFFIC CONDITIONS	Base2020WP
				CALC JC	DATE 01/26/22
				CHK	DATE

Jurisdiction: **City of Blythe**
Major Street: **Hobsonway** — Critical Approach Speed (Major) 45 mph
Minor Street: **Project Dwy.** — Critical Approach Speed (Minor) 30 mph

Major Street Approach Lanes = **1** lane — Minor Street Approach Lanes **1** lane

Major Street Future ADT = **9,168** vpd — Minor Street Future ADT = **1,140** vpd

Speed limit or critical speed on major street traffic > 64 km/h (40 mph); ……... √

or

In built up area of isolated community of < 10,000 population ……..

RURAL (R)

(Based on Estimated Average Daily Traffic - See Note)

URBAN / RURAL: XX

CONDITION A - Minimum Vehicular Volume

Satisfied / Not Satisfied: XX

Number of lanes for moving traffic on each approach		Minimum Requirements ADT			
Major Street	Minor Street	Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
		Urban	Rural	Urban	Rural
1 **9,168**	1 **1,140**	8,000	5,600 *	2,400	1,680
2 +	1	9,600	6,720	2,400	1,680
2 +	2 +	9,600	6,720	3,200	2,240
1	2 +	8,000	5,600	3,200	2,240

CONDITION B - Interruption of Continuous Traffic

Satisfied: XX / Not Satisfied

Number of lanes for moving traffic on each approach		Vehicles Per Day on Major Street (Total of Both Approaches)		Vehicles Per Day on Higher-Volume Minor Street Approach (One Direction Only)	
Major Street	Minor Street	Urban	Rural	Urban	Rural
1 **9,168**	1 **1,140**	12,000	8,400 *	1,200	850 *
2 +	1	14,400	10,080	1,200	850
2 +	2 +	14,400	10,080	1,600	1,120
1	2 +	12,000	8,400	1,600	1,120

Combination of CONDITIONS A + B

Satisfied / Not Satisfied: XX

No one condition satisfied, but following conditions fulfilled 80% of more ….. A: 68% B: 100%

2 CONDITIONS 80% — 2 CONDITIONS 80%

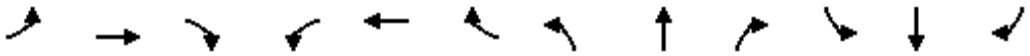
Note: To be used only for NEW INTERSECTIONS or other locations where it is not reasonable to count actual traffic volumes.

The satisfaction of a traffic signal warrant or warrants shall not in itself require the installation of a traffic control signal.

APPENDIX 5.1:

CUMULATIVE 5 YEAR (2026) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	212	8	9	167	22	4	18	17	31	18	31
Future Volume (vph)	21	212	8	9	167	22	4	18	17	31	18	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

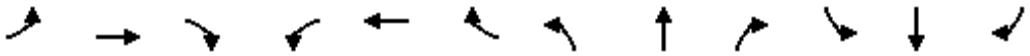
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	21	212	8	9	167	22	4	18	17	31	18	31
Future Vol, veh/h	21	212	8	9	167	22	4	18	17	31	18	31
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	233	9	10	184	24	4	20	19	34	20	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	213	0	0	247	0	0	537	522	248	529	514	206
Stage 1	-	-	-	-	-	-	289	289	-	221	221	-
Stage 2	-	-	-	-	-	-	248	233	-	308	293	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1357	-	-	1319	-	-	455	459	791	460	464	835
Stage 1	-	-	-	-	-	-	719	673	-	781	720	-
Stage 2	-	-	-	-	-	-	756	712	-	702	670	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1351	-	-	1313	-	-	408	441	783	420	446	827
Mov Cap-2 Maneuver	-	-	-	-	-	-	408	441	-	420	446	-
Stage 1	-	-	-	-	-	-	701	656	-	761	710	-
Stage 2	-	-	-	-	-	-	695	702	-	648	653	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	12.3	13.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	539	1351	-	-	1313	-	-	528
HCM Lane V/C Ratio	0.08	0.017	-	-	0.008	-	-	0.167
HCM Control Delay (s)	12.3	7.7	0	-	7.8	0	-	13.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	79	22	80	56	1	14	9	95	1	10	1
Future Volume (vph)	1	79	22	80	56	1	14	9	95	1	10	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

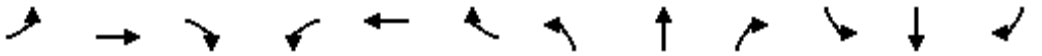
Intersection	
Int Delay, s/veh	5.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	79	22	80	56	1	14	9	95	1	10	1
Future Vol, veh/h	1	79	22	80	56	1	14	9	95	1	10	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	88	24	89	62	1	16	10	106	1	11	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	117	0	0	359	353	110	411	365	73
Stage 1	-	-	-	-	-	-	107	107	-	246	246	-
Stage 2	-	-	-	-	-	-	252	246	-	165	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1471	-	-	596	572	943	551	563	989
Stage 1	-	-	-	-	-	-	898	807	-	758	703	-
Stage 2	-	-	-	-	-	-	752	703	-	837	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1464	-	-	552	530	934	454	522	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	552	530	-	454	522	-
Stage 1	-	-	-	-	-	-	893	802	-	753	655	-
Stage 2	-	-	-	-	-	-	689	655	-	729	792	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	4.4	10.2	11.9
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	819	1526	-	-	1464	-	-	536
HCM Lane V/C Ratio	0.16	0.001	-	-	0.061	-	-	0.025
HCM Control Delay (s)	10.2	7.4	0	-	7.6	0	-	11.9
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.2	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	70	1	28	22	96	0	0	63	74
Future Volume (vph)	0	0	0	70	1	28	22	96	0	0	63	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

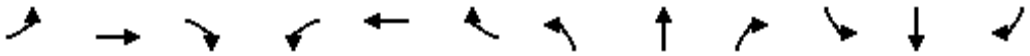
Intersection	
Int Delay, s/veh	3.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	70	1	28	22	96	0	0	63	74
Future Vol, veh/h	0	0	0	70	1	28	22	96	0	0	63	74
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	83	1	33	26	114	0	0	75	88

Major/Minor	Minor1			Major1			Major2			
Conflicting Flow All	241	241	114	75	0	-	-	-	0	
Stage 1	166	166	-	-	-	-	-	-	-	
Stage 2	75	75	-	-	-	-	-	-	-	
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	
Pot Cap-1 Maneuver	747	660	939	1524	-	0	0	-	-	
Stage 1	863	761	-	-	-	0	0	-	-	
Stage 2	948	833	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	734	0	939	1524	-	-	-	-	-	
Mov Cap-2 Maneuver	734	0	-	-	-	-	-	-	-	
Stage 1	847	0	-	-	-	-	-	-	-	
Stage 2	948	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	10.1	1.4	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1524	-	734	939	-	-
HCM Lane V/C Ratio	0.017	-	0.115	0.035	-	-
HCM Control Delay (s)	7.4	-	10.5	9	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.4	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	41	3	19	0	0	0	0	77	44	34	98	0
Future Volume (vph)	41	3	19	0	0	0	0	77	44	34	98	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	41	3	19	0	0	0	0	77	44	34	98	0
Future Vol, veh/h	41	3	19	0	0	0	0	77	44	34	98	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	48	3	22	0	0	0	0	90	51	40	114	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	284	284	114	-	0	0	90	0	0
Stage 1	194	194	-	-	-	-	-	-	-
Stage 2	90	90	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	706	625	939	0	-	-	1505	-	0
Stage 1	839	740	-	0	-	-	-	-	0
Stage 2	934	820	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	686	0	939	-	-	-	1505	-	-
Mov Cap-2 Maneuver	686	0	-	-	-	-	-	-	-
Stage 1	839	0	-	-	-	-	-	-	-
Stage 2	908	0	-	-	-	-	-	-	-

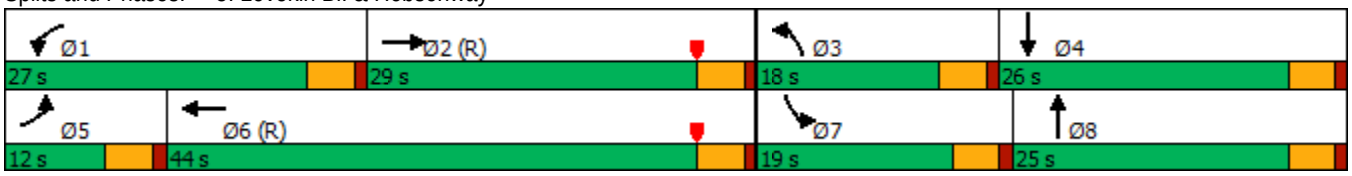
Approach	EB	NB	SB
HCM Control Delay, s	10.2	0	1.9
HCM LOS	B		

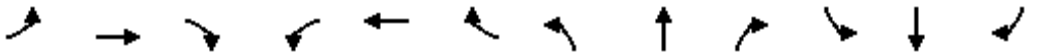
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	686	939	1505	-
HCM Lane V/C Ratio	-	-	0.075	0.024	0.026	-
HCM Control Delay (s)	-	-	10.7	8.9	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.2	0.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	27	212	95	157	195	62	78	179	126	84	217	46
Future Volume (vph)	27	212	95	157	195	62	78	179	126	84	217	46
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	12.0	29.0		27.0	44.0		18.0	25.0		19.0	26.0	
Total Split (%)	12.0%	29.0%		27.0%	44.0%		18.0%	25.0%		19.0%	26.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway

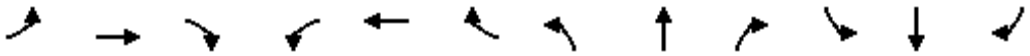




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	212	95	157	195	62	78	179	126	84	217	46
Future Volume (veh/h)	27	212	95	157	195	62	78	179	126	84	217	46
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	30	238	107	176	219	70	88	201	142	94	244	52
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	50	1017	443	212	1368	426	113	428	287	120	628	131
Arrive On Green	0.03	0.42	0.42	0.12	0.51	0.51	0.06	0.21	0.21	0.07	0.22	0.22
Sat Flow, veh/h	1781	2407	1048	1781	2666	829	1781	2029	1361	1781	2921	611
Grp Volume(v), veh/h	30	174	171	176	144	145	88	175	168	94	147	149
Grp Sat Flow(s),veh/h/ln	1781	1777	1677	1781	1777	1718	1781	1777	1614	1781	1777	1755
Q Serve(g_s), s	1.7	6.3	6.6	9.7	4.3	4.5	4.9	8.6	9.2	5.2	7.1	7.3
Cycle Q Clear(g_c), s	1.7	6.3	6.6	9.7	4.3	4.5	4.9	8.6	9.2	5.2	7.1	7.3
Prop In Lane	1.00		0.62	1.00		0.48	1.00		0.84	1.00		0.35
Lane Grp Cap(c), veh/h	50	751	709	212	912	882	113	375	340	120	382	377
V/C Ratio(X)	0.60	0.23	0.24	0.83	0.16	0.16	0.78	0.47	0.49	0.78	0.38	0.40
Avail Cap(c_a), veh/h	134	751	709	401	912	882	240	375	340	258	382	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	18.5	18.6	43.1	12.9	12.9	46.1	34.5	34.8	45.9	33.6	33.7
Incr Delay (d2), s/veh	10.7	0.7	0.8	8.1	0.4	0.4	10.9	4.1	5.1	10.4	2.9	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.6	2.6	4.7	1.7	1.7	2.5	4.1	4.0	2.6	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	19.2	19.4	51.2	13.3	13.3	57.0	38.7	39.8	56.3	36.5	36.8
LnGrp LOS	E	B	B	D	B	B	E	D	D	E	D	D
Approach Vol, veh/h		375			465			431			390	
Approach Delay, s/veh		22.4			27.6			42.9			41.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	46.8	10.8	26.0	7.3	55.8	11.3	25.6
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	24.5	13.5	21.5	7.5	39.5	14.5	20.5
Max Q Clear Time (g_c+I1), s	11.7	8.6	6.9	9.3	3.7	6.5	7.2	11.2
Green Ext Time (p_c), s	0.3	1.7	0.1	1.2	0.0	1.7	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	315	9	7	242	35	9	9	9	19	13	30
Future Volume (vph)	35	315	9	7	242	35	9	9	9	19	13	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

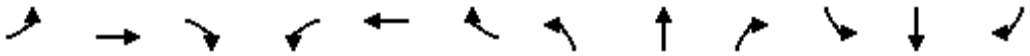
Intersection	
Int Delay, s/veh	2.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	315	9	7	242	35	9	9	9	19	13	30
Future Vol, veh/h	35	315	9	7	242	35	9	9	9	19	13	30
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	350	10	8	269	39	10	10	10	21	14	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	313	0	0	365	0	0	771	767	365	758	753	299
Stage 1	-	-	-	-	-	-	438	438	-	310	310	-
Stage 2	-	-	-	-	-	-	333	329	-	448	443	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1247	-	-	1194	-	-	317	332	680	324	339	741
Stage 1	-	-	-	-	-	-	597	579	-	700	659	-
Stage 2	-	-	-	-	-	-	681	646	-	590	576	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1241	-	-	1188	-	-	279	313	674	297	320	734
Mov Cap-2 Maneuver	-	-	-	-	-	-	279	313	-	297	320	-
Stage 1	-	-	-	-	-	-	571	554	-	669	650	-
Stage 2	-	-	-	-	-	-	628	638	-	546	551	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.8	0.2	15.8	15.1
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	363	1241	-	-	1188	-	-	426
HCM Lane V/C Ratio	0.083	0.031	-	-	0.007	-	-	0.162
HCM Control Delay (s)	15.8	8	0	-	8.1	0	-	15.1
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0	-	-	0.6



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	165	22	97	87	3	10	10	90	1	8	3
Future Volume (vph)	3	165	22	97	87	3	10	10	90	1	8	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

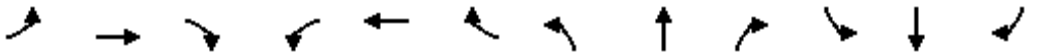
Intersection	
Int Delay, s/veh	4.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	3	165	22	97	87	3	10	10	90	1	8	3
Future Vol, veh/h	3	165	22	97	87	3	10	10	90	1	8	3
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	183	24	108	97	3	11	11	100	1	9	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	212	0	0	532	527	205	582	538	109
Stage 1	-	-	-	-	-	-	206	206	-	320	320	-
Stage 2	-	-	-	-	-	-	326	321	-	262	218	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1358	-	-	458	456	836	424	450	945
Stage 1	-	-	-	-	-	-	796	731	-	692	652	-
Stage 2	-	-	-	-	-	-	687	652	-	743	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1352	-	-	415	412	828	338	407	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	415	412	-	338	407	-
Stage 1	-	-	-	-	-	-	790	726	-	687	593	-
Stage 2	-	-	-	-	-	-	614	593	-	639	718	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	4.1	11.2	13
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	700	1479	-	-	1352	-	-	465
HCM Lane V/C Ratio	0.175	0.002	-	-	0.08	-	-	0.029
HCM Control Delay (s)	11.2	7.4	0	-	7.9	0	-	13
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	0.6	0	-	-	0.3	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	79	3	20	3	105	0	0	84	47
Future Volume (vph)	0	0	0	79	3	20	3	105	0	0	84	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

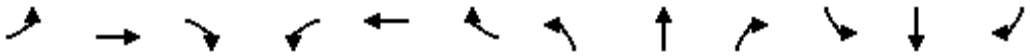
Intersection	
Int Delay, s/veh	3.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	79	3	20	3	105	0	0	84	47
Future Vol, veh/h	0	0	0	79	3	20	3	105	0	0	84	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	103	4	26	4	136	0	0	109	61

Major/Minor	Minor1			Major1				Major2		
Conflicting Flow All	253	253	136	109	0	-	-	-	0	
Stage 1	144	144	-	-	-	-	-	-	-	
Stage 2	109	109	-	-	-	-	-	-	-	
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-	
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-	
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-	
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-	
Pot Cap-1 Maneuver	736	650	913	1481	-	0	0	-	-	
Stage 1	883	778	-	-	-	0	0	-	-	
Stage 2	916	805	-	-	-	0	0	-	-	
Platoon blocked, %					-			-	-	
Mov Cap-1 Maneuver	734	0	913	1481	-	-	-	-	-	
Mov Cap-2 Maneuver	734	0	-	-	-	-	-	-	-	
Stage 1	880	0	-	-	-	-	-	-	-	
Stage 2	916	0	-	-	-	-	-	-	-	

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0.2	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1481	-	734	913	-	-
HCM Lane V/C Ratio	0.003	-	0.145	0.028	-	-
HCM Control Delay (s)	7.4	-	10.7	9.1	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.5	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	78	1	43	0	0	0	0	32	53	31	133	0
Future Volume (vph)	78	1	43	0	0	0	0	32	53	31	133	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	4.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	78	1	43	0	0	0	0	32	53	31	133	0
Future Vol, veh/h	78	1	43	0	0	0	0	32	53	31	133	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	118	2	65	0	0	0	0	48	80	47	202	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	344	344	202	-	0	0	48	0	0
Stage 1	296	296	-	-	-	-	-	-	-
Stage 2	48	48	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	652	579	839	0	-	-	1559	-	0
Stage 1	755	668	-	0	-	-	-	-	0
Stage 2	974	855	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	630	0	839	-	-	-	1559	-	-
Mov Cap-2 Maneuver	630	0	-	-	-	-	-	-	-
Stage 1	755	0	-	-	-	-	-	-	-
Stage 2	941	0	-	-	-	-	-	-	-

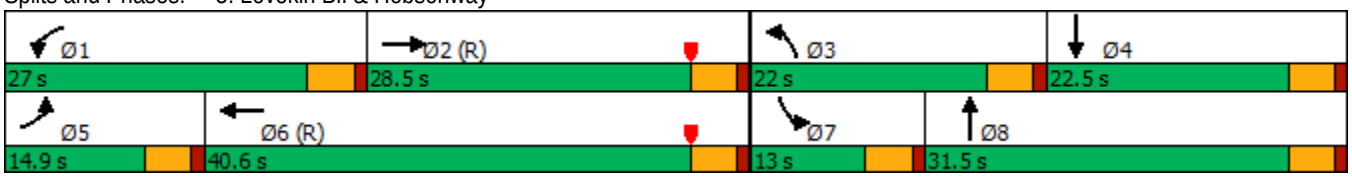
Approach	EB	NB	SB
HCM Control Delay, s	11.3	0	1.4
HCM LOS	B		

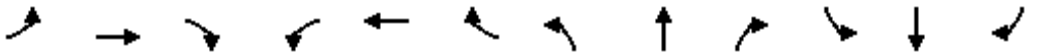
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	630	839	1559	-
HCM Lane V/C Ratio	-	-	0.19	0.078	0.03	-
HCM Control Delay (s)	-	-	12.1	9.7	7.4	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	0.7	0.3	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	357	132	226	257	123	174	317	295	70	164	36
Future Volume (vph)	70	357	132	226	257	123	174	317	295	70	164	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	14.9	28.5		27.0	40.6		22.0	31.5		13.0	22.5	
Total Split (%)	14.9%	28.5%		27.0%	40.6%		22.0%	31.5%		13.0%	22.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	70	357	132	226	257	123	174	317	295	70	164	36
Future Volume (veh/h)	70	357	132	226	257	123	174	317	295	70	164	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	85	435	161	276	313	150	212	387	360	85	200	44
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	109	798	293	312	1004	470	246	480	426	109	560	121
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.14	0.27	0.27	0.06	0.19	0.19
Sat Flow, veh/h	1781	2542	932	1781	2346	1099	1781	1777	1576	1781	2904	625
Grp Volume(v), veh/h	85	303	293	276	235	228	212	387	360	85	121	123
Grp Sat Flow(s),veh/h/ln	1781	1777	1697	1781	1777	1668	1781	1777	1576	1781	1777	1752
Q Serve(g_s), s	4.7	14.1	14.3	15.1	8.7	9.0	11.6	20.3	21.6	4.7	5.9	6.1
Cycle Q Clear(g_c), s	4.7	14.1	14.3	15.1	8.7	9.0	11.6	20.3	21.6	4.7	5.9	6.1
Prop In Lane	1.00		0.55	1.00		0.66	1.00		1.00	1.00		0.36
Lane Grp Cap(c), veh/h	109	558	533	312	760	714	246	480	426	109	343	338
V/C Ratio(X)	0.78	0.54	0.55	0.89	0.31	0.32	0.86	0.81	0.85	0.78	0.35	0.37
Avail Cap(c_a), veh/h	185	558	533	401	760	714	312	480	426	151	343	338
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.3	28.4	28.4	40.3	18.9	19.0	42.2	34.1	34.5	46.3	34.9	35.0
Incr Delay (d2), s/veh	11.4	3.8	4.1	17.1	1.1	1.2	17.7	13.5	18.4	16.0	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.4	6.2	7.9	3.7	3.6	6.2	10.3	10.2	2.5	2.8	2.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.6	32.1	32.5	57.4	19.9	20.1	59.9	47.6	52.9	62.3	37.8	38.1
LnGrp LOS	E	C	C	E	B	C	E	D	D	E	D	D
Approach Vol, veh/h		681			739			959			329	
Approach Delay, s/veh		35.5			34.0			52.3			44.2	
Approach LOS		D			C			D			D	

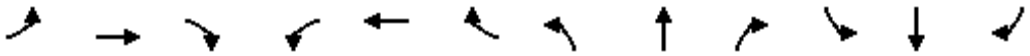
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.0	35.9	18.3	23.8	10.6	47.3	10.6	31.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	24.0	17.5	18.0	10.4	36.1	8.5	27.0
Max Q Clear Time (g_c+I1), s	17.1	16.3	13.6	8.1	6.7	11.0	6.7	23.6
Green Ext Time (p_c), s	0.4	2.2	0.2	0.9	0.0	2.8	0.0	1.5

Intersection Summary	
HCM 6th Ctrl Delay	42.1
HCM 6th LOS	D

APPENDIX 5.2:

CUMULATIVE 5 YEAR (2026) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	354	8	13	205	22	4	18	31	31	18	31
Future Volume (vph)	21	354	8	13	205	22	4	18	31	31	18	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

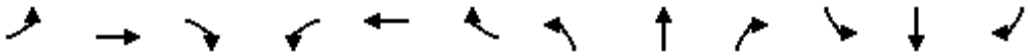
Intersection	
Int Delay, s/veh	3.1

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	21	354	8	13	205	22	4	18	31	31	18	31
Future Vol, veh/h	21	354	8	13	205	22	4	18	31	31	18	31
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	389	9	14	225	24	4	20	34	34	20	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	254	0	0	403	0	0	742	727	404	742	719	247
Stage 1	-	-	-	-	-	-	445	445	-	270	270	-
Stage 2	-	-	-	-	-	-	297	282	-	472	449	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1311	-	-	1156	-	-	332	351	647	332	354	792
Stage 1	-	-	-	-	-	-	592	575	-	736	686	-
Stage 2	-	-	-	-	-	-	712	678	-	573	572	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1305	-	-	1150	-	-	292	335	641	289	338	784
Mov Cap-2 Maneuver	-	-	-	-	-	-	292	335	-	289	338	-
Stage 1	-	-	-	-	-	-	575	559	-	715	673	-
Stage 2	-	-	-	-	-	-	649	665	-	509	556	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	0.4	14	16.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	458	1305	-	-	1150	-	-	400
HCM Lane V/C Ratio	0.127	0.018	-	-	0.012	-	-	0.22
HCM Control Delay (s)	14	7.8	0	-	8.2	0	-	16.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0	-	-	0.8



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	1	79	22	118	56	1	14	9	237	1	10	1
Future Volume (vph)	1	79	22	118	56	1	14	9	237	1	10	1
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

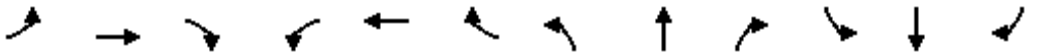
Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	1	79	22	118	56	1	14	9	237	1	10	1
Future Vol, veh/h	1	79	22	118	56	1	14	9	237	1	10	1
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	88	24	131	62	1	16	10	263	1	11	1

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	68	0	0	117	0	0	443	437	110	574	449	73
Stage 1	-	-	-	-	-	-	107	107	-	330	330	-
Stage 2	-	-	-	-	-	-	336	330	-	244	119	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1533	-	-	1471	-	-	525	513	943	430	505	989
Stage 1	-	-	-	-	-	-	898	807	-	683	646	-
Stage 2	-	-	-	-	-	-	678	646	-	760	797	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1526	-	-	1464	-	-	473	460	934	279	453	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	473	460	-	279	453	-
Stage 1	-	-	-	-	-	-	893	802	-	679	583	-
Stage 2	-	-	-	-	-	-	600	583	-	536	792	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.2	11.3	13.2
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	858	1526	-	-	1464	-	-	450
HCM Lane V/C Ratio	0.337	0.001	-	-	0.09	-	-	0.03
HCM Control Delay (s)	11.3	7.4	0	-	7.7	0	-	13.2
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.5	0	-	-	0.3	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	70	1	56	22	209	0	0	74	101
Future Volume (vph)	0	0	0	70	1	56	22	209	0	0	74	101
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

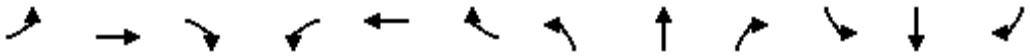
Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	70	1	56	22	209	0	0	74	101
Future Vol, veh/h	0	0	0	70	1	56	22	209	0	0	74	101
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	83	1	67	26	249	0	0	88	120

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	389	389	249	88	0	-	-	-	0
Stage 1	301	301	-	-	-	-	-	-	-
Stage 2	88	88	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	615	546	790	1508	-	0	0	-	-
Stage 1	751	665	-	-	-	0	0	-	-
Stage 2	935	822	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	603	0	790	1508	-	-	-	-	-
Mov Cap-2 Maneuver	603	0	-	-	-	-	-	-	-
Stage 1	736	0	-	-	-	-	-	-	-
Stage 2	935	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1508	-	603	790	-	-
HCM Lane V/C Ratio	0.017	-	0.14	0.084	-	-
HCM Control Delay (s)	7.4	-	11.9	10	-	-
HCM Lane LOS	A	-	B	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.5	0.3	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	3	19	0	0	0	0	91	44	42	102	0
Future Volume (vph)	140	3	19	0	0	0	0	91	44	42	102	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	140	3	19	0	0	0	0	91	44	42	102	0
Future Vol, veh/h	140	3	19	0	0	0	0	91	44	42	102	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	163	3	22	0	0	0	0	106	51	49	119	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	323	323	119	-	0	0	106	0	0
Stage 1	217	217	-	-	-	-	-	-	-
Stage 2	106	106	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	671	595	933	0	-	-	1485	-	0
Stage 1	819	723	-	0	-	-	-	-	0
Stage 2	918	807	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	648	0	933	-	-	-	1485	-	-
Mov Cap-2 Maneuver	648	0	-	-	-	-	-	-	-
Stage 1	819	0	-	-	-	-	-	-	-
Stage 2	886	0	-	-	-	-	-	-	-

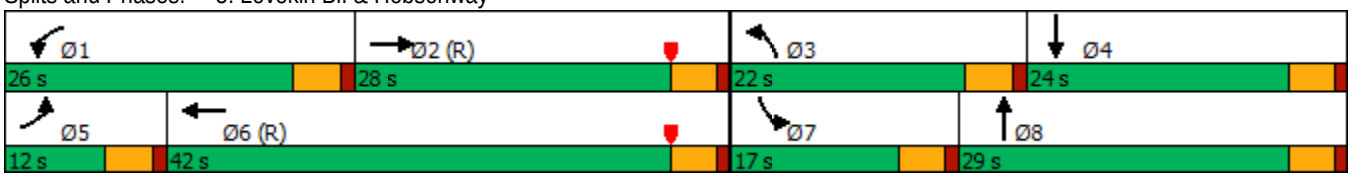
Approach	EB	NB	SB
HCM Control Delay, s	12.1	0	2.2
HCM LOS	B		

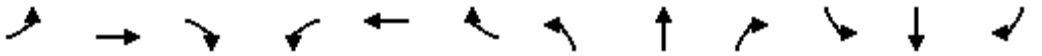
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	648	933	1485	-
HCM Lane V/C Ratio	-	-	0.257	0.024	0.033	-
HCM Control Delay (s)	-	-	12.5	9	7.5	-
HCM Lane LOS	-	-	B	A	A	-
HCM 95th %tile Q(veh)	-	-	1	0.1	0.1	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	227	106	157	252	62	120	179	126	84	217	74
Future Volume (vph)	35	227	106	157	252	62	120	179	126	84	217	74
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	12.0	28.0		26.0	42.0		22.0	29.0		17.0	24.0	
Total Split (%)	12.0%	28.0%		26.0%	42.0%		22.0%	29.0%		17.0%	24.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	35	227	106	157	252	62	120	179	126	84	217	74
Future Volume (veh/h)	35	227	106	157	252	62	120	179	126	84	217	74
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	39	255	119	176	283	70	135	201	142	94	244	83
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	923	418	212	1344	327	167	497	334	120	572	189
Arrive On Green	0.03	0.39	0.39	0.12	0.47	0.47	0.09	0.25	0.25	0.07	0.22	0.22
Sat Flow, veh/h	1781	2374	1075	1781	2832	688	1781	2030	1362	1781	2617	867
Grp Volume(v), veh/h	39	189	185	176	176	177	135	175	168	94	164	163
Grp Sat Flow(s),veh/h/ln	1781	1777	1672	1781	1777	1744	1781	1777	1615	1781	1777	1707
Q Serve(g_s), s	2.2	7.3	7.6	9.7	5.8	5.9	7.4	8.2	8.8	5.2	7.9	8.3
Cycle Q Clear(g_c), s	2.2	7.3	7.6	9.7	5.8	5.9	7.4	8.2	8.8	5.2	7.9	8.3
Prop In Lane	1.00		0.64	1.00		0.39	1.00		0.84	1.00		0.51
Lane Grp Cap(c), veh/h	59	691	650	212	843	827	167	435	396	120	388	373
V/C Ratio(X)	0.66	0.27	0.28	0.83	0.21	0.21	0.81	0.40	0.43	0.78	0.42	0.44
Avail Cap(c_a), veh/h	134	691	650	383	843	827	312	435	396	223	388	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	47.8	20.9	21.0	43.1	15.3	15.4	44.4	31.6	31.8	45.9	33.6	33.8
Incr Delay (d2), s/veh	12.0	1.0	1.1	8.2	0.6	0.6	8.8	2.7	3.3	10.5	3.3	3.7
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.1	3.1	3.1	4.7	2.4	2.4	3.6	3.8	3.7	2.6	3.7	3.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	59.8	21.9	22.1	51.3	15.9	16.0	53.2	34.3	35.1	56.5	37.0	37.5
LnGrp LOS	E	C	C	D	B	B	D	C	D	E	D	D
Approach Vol, veh/h		413			529			478			421	
Approach Delay, s/veh		25.6			27.7			40.0			41.5	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.4	43.4	13.9	26.3	7.8	52.0	11.2	29.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	23.5	17.5	19.5	7.5	37.5	12.5	24.5
Max Q Clear Time (g_c+I1), s	11.7	9.6	9.4	10.3	4.2	7.9	7.2	10.8
Green Ext Time (p_c), s	0.3	1.8	0.2	1.2	0.0	2.1	0.1	1.6

Intersection Summary	
HCM 6th Ctrl Delay	33.6
HCM 6th LOS	C



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	237	156	127	213	42	34
Future Volume (vph)	237	156	127	213	42	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	45			45	30	
Link Distance (ft)	2001			786	364	
Travel Time (s)	30.3			11.9	8.3	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

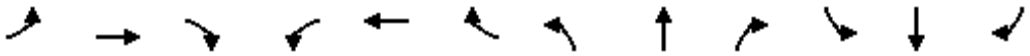
Intersection	
Int Delay, s/veh	3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	237	156	127	213	42	34
Future Vol, veh/h	237	156	127	213	42	34
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	258	170	138	232	46	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	433	0	861	353
Stage 1	-	-	-	-	348	-
Stage 2	-	-	-	-	513	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1127	-	326	691
Stage 1	-	-	-	-	715	-
Stage 2	-	-	-	-	601	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1122	-	277	684
Mov Cap-2 Maneuver	-	-	-	-	277	-
Stage 1	-	-	-	-	711	-
Stage 2	-	-	-	-	514	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.2	17.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	377	-	-	1122	-
HCM Lane V/C Ratio	0.219	-	-	0.123	-
HCM Control Delay (s)	17.2	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.8	-	-	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	35	372	9	21	377	35	9	9	15	19	13	30
Future Volume (vph)	35	372	9	21	377	35	9	9	15	19	13	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

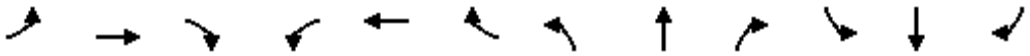
Intersection	
Int Delay, s/veh	2.5

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	35	372	9	21	377	35	9	9	15	19	13	30
Future Vol, veh/h	35	372	9	21	377	35	9	9	15	19	13	30
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	39	413	10	23	419	39	10	10	17	21	14	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	463	0	0	428	0	0	1014	1010	428	1005	996	449
Stage 1	-	-	-	-	-	-	501	501	-	490	490	-
Stage 2	-	-	-	-	-	-	513	509	-	515	506	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1098	-	-	1131	-	-	217	240	627	220	244	610
Stage 1	-	-	-	-	-	-	552	543	-	560	549	-
Stage 2	-	-	-	-	-	-	544	538	-	543	540	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1093	-	-	1126	-	-	182	220	621	193	224	604
Mov Cap-2 Maneuver	-	-	-	-	-	-	182	220	-	193	224	-
Stage 1	-	-	-	-	-	-	523	515	-	531	531	-
Stage 2	-	-	-	-	-	-	484	520	-	491	512	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	0.4	19.3	20.5
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	288	1093	-	-	1126	-	-	301
HCM Lane V/C Ratio	0.127	0.036	-	-	0.021	-	-	0.229
HCM Control Delay (s)	19.3	8.4	0	-	8.3	0	-	20.5
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.4	0.1	-	-	0.1	-	-	0.9



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	165	22	232	87	3	10	10	147	1	8	3
Future Volume (vph)	3	165	22	232	87	3	10	10	147	1	8	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

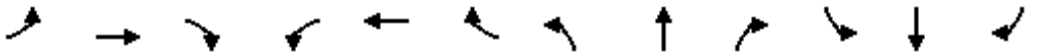
Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	3	165	22	232	87	3	10	10	147	1	8	3
Future Vol, veh/h	3	165	22	232	87	3	10	10	147	1	8	3
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	3	183	24	258	97	3	11	11	163	1	9	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	105	0	0	212	0	0	832	827	205	913	838	109
Stage 1	-	-	-	-	-	-	206	206	-	620	620	-
Stage 2	-	-	-	-	-	-	626	621	-	293	218	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1486	-	-	1358	-	-	288	307	836	254	302	945
Stage 1	-	-	-	-	-	-	796	731	-	476	480	-
Stage 2	-	-	-	-	-	-	472	479	-	715	723	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1479	-	-	1352	-	-	233	242	828	165	238	936
Mov Cap-2 Maneuver	-	-	-	-	-	-	233	242	-	165	238	-
Stage 1	-	-	-	-	-	-	790	726	-	473	381	-
Stage 2	-	-	-	-	-	-	365	380	-	561	718	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	6	12.9	18.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	638	1479	-	-	1352	-	-	280
HCM Lane V/C Ratio	0.291	0.002	-	-	0.191	-	-	0.048
HCM Control Delay (s)	12.9	7.4	0	-	8.3	0	-	18.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	1.2	0	-	-	0.7	-	-	0.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	79	3	31	3	150	0	0	125	142
Future Volume (vph)	0	0	0	79	3	31	3	150	0	0	125	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

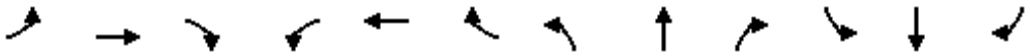
Intersection	
Int Delay, s/veh	2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	79	3	31	3	150	0	0	125	142
Future Vol, veh/h	0	0	0	79	3	31	3	150	0	0	125	142
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	103	4	40	4	195	0	0	162	184

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	365	365	195	162	0	-	-	-	0
Stage 1	203	203	-	-	-	-	-	-	-
Stage 2	162	162	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	635	563	846	1417	-	0	0	-	-
Stage 1	831	733	-	-	-	0	0	-	-
Stage 2	867	764	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	633	0	846	1417	-	-	-	-	-
Mov Cap-2 Maneuver	633	0	-	-	-	-	-	-	-
Stage 1	829	0	-	-	-	-	-	-	-
Stage 2	867	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.2	0.1	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1417	-	633	846	-	-
HCM Lane V/C Ratio	0.003	-	0.168	0.048	-	-
HCM Control Delay (s)	7.5	-	11.8	9.5	-	-
HCM Lane LOS	A	-	B	A	-	-
HCM 95th %tile Q(veh)	0	-	0.6	0.1	-	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	118	1	43	0	0	0	0	38	53	58	147	0
Future Volume (vph)	118	1	43	0	0	0	0	38	53	58	147	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	118	1	43	0	0	0	0	38	53	58	147	0
Future Vol, veh/h	118	1	43	0	0	0	0	38	53	58	147	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	179	2	65	0	0	0	0	58	80	88	223	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	457	457	223	-	0	0	58	0	0
Stage 1	399	399	-	-	-	-	-	-	-
Stage 2	58	58	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	562	500	817	0	-	-	1546	-	0
Stage 1	678	602	-	0	-	-	-	-	0
Stage 2	965	847	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	525	0	817	-	-	-	1546	-	-
Mov Cap-2 Maneuver	525	0	-	-	-	-	-	-	-
Stage 1	678	0	-	-	-	-	-	-	-
Stage 2	902	0	-	-	-	-	-	-	-

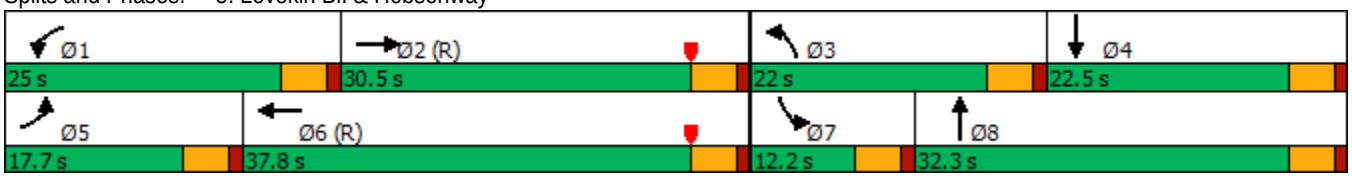
Approach	EB	NB	SB
HCM Control Delay, s	13.9	0	2.1
HCM LOS	B		

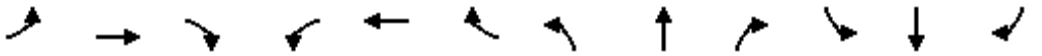
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	525	817	1546	-
HCM Lane V/C Ratio	-	-	0.343	0.08	0.057	-
HCM Control Delay (s)	-	-	15.4	9.8	7.5	-
HCM Lane LOS	-	-	C	A	A	-
HCM 95th %tile Q(veh)	-	-	1.5	0.3	0.2	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	97	411	173	226	280	123	191	317	295	70	164	47
Future Volume (vph)	97	411	173	226	280	123	191	317	295	70	164	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	17.7	30.5		25.0	37.8		22.0	32.3		12.2	22.5	
Total Split (%)	17.7%	30.5%		25.0%	37.8%		22.0%	32.3%		12.2%	22.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	97	411	173	226	280	123	191	317	295	70	164	47
Future Volume (veh/h)	97	411	173	226	280	123	191	317	295	70	164	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	118	501	211	276	341	150	233	387	360	85	200	57
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	148	748	313	310	961	415	266	494	438	108	519	144
Arrive On Green	0.08	0.31	0.31	0.17	0.40	0.40	0.15	0.28	0.28	0.06	0.19	0.19
Sat Flow, veh/h	1781	2437	1021	1781	2413	1042	1781	1777	1576	1781	2743	761
Grp Volume(v), veh/h	118	365	347	276	249	242	233	387	360	85	128	129
Grp Sat Flow(s),veh/h/ln	1781	1777	1681	1781	1777	1678	1781	1777	1576	1781	1777	1726
Q Serve(g_s), s	6.5	17.9	18.1	15.1	9.8	10.1	12.8	20.1	21.4	4.7	6.3	6.6
Cycle Q Clear(g_c), s	6.5	17.9	18.1	15.1	9.8	10.1	12.8	20.1	21.4	4.7	6.3	6.6
Prop In Lane	1.00		0.61	1.00		0.62	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	148	546	516	310	708	668	266	494	438	108	336	327
V/C Ratio(X)	0.80	0.67	0.67	0.89	0.35	0.36	0.87	0.78	0.82	0.78	0.38	0.40
Avail Cap(c_a), veh/h	235	546	516	365	708	668	312	494	438	137	336	327
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	30.2	30.3	40.4	21.1	21.1	41.6	33.3	33.8	46.3	35.4	35.5
Incr Delay (d2), s/veh	9.6	6.4	6.9	20.5	1.4	1.5	20.8	11.8	15.8	20.2	3.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.2	8.4	8.0	8.2	4.2	4.1	7.0	10.0	9.8	2.7	3.0	3.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.7	36.6	37.1	60.9	22.4	22.7	62.4	45.1	49.6	66.5	38.6	39.1
LnGrp LOS	D	D	D	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		830			767			980			342	
Approach Delay, s/veh		39.4			36.3			50.9			45.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	21.9	35.2	19.5	23.4	12.8	44.3	10.6	32.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	26.0	17.5	18.0	13.2	33.3	7.7	27.8
Max Q Clear Time (g_c+I1), s	17.1	20.1	14.8	8.6	8.5	12.1	6.7	23.4
Green Ext Time (p_c), s	0.3	2.2	0.2	0.9	0.1	2.9	0.0	1.9

Intersection Summary	
HCM 6th Ctrl Delay	43.2
HCM 6th LOS	D



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	366	62	51	253	149	122
Future Volume (vph)	366	62	51	253	149	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	45			45	30	
Link Distance (ft)	2001			786	364	
Travel Time (s)	30.3			11.9	8.3	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	8.7

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	366	62	51	253	149	122
Future Vol, veh/h	366	62	51	253	149	122
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	398	67	55	275	162	133

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	470	0	827	442
Stage 1	-	-	-	-	437	-
Stage 2	-	-	-	-	390	-
Critical Hdwy	-	-	4.12	-	6.3	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.3	3.318
Pot Cap-1 Maneuver	-	-	1092	-	366	615
Stage 1	-	-	-	-	686	-
Stage 2	-	-	-	-	721	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1087	-	341	609
Mov Cap-2 Maneuver	-	-	-	-	341	-
Stage 1	-	-	-	-	683	-
Stage 2	-	-	-	-	675	-

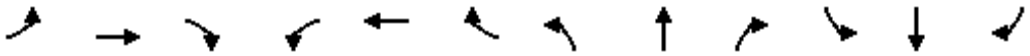
Approach	EB	WB	NB
HCM Control Delay, s	0	1.4	30.5
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	425	-	-	1087	-
HCM Lane V/C Ratio	0.693	-	-	0.051	-
HCM Control Delay (s)	30.5	-	-	8.5	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	5.1	-	-	0.2	-

APPENDIX 6.1:

GENERAL PLAN (2040) WITHOUT PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	214	35	67	172	22	4	57	18	31	47	31
Future Volume (vph)	21	214	35	67	172	22	4	57	18	31	47	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

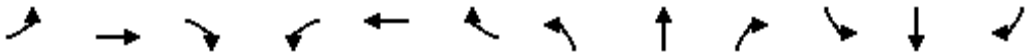
Intersection	
Int Delay, s/veh	5.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	21	214	35	67	172	22	4	57	18	31	47	31
Future Vol, veh/h	21	214	35	67	172	22	4	57	18	31	47	31
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	235	38	74	189	24	4	63	20	34	52	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	218	0	0	278	0	0	702	671	264	701	678	211
Stage 1	-	-	-	-	-	-	305	305	-	354	354	-
Stage 2	-	-	-	-	-	-	397	366	-	347	324	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1352	-	-	1285	-	-	353	378	775	353	374	829
Stage 1	-	-	-	-	-	-	705	662	-	663	630	-
Stage 2	-	-	-	-	-	-	629	623	-	669	650	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1346	-	-	1279	-	-	277	342	768	274	339	821
Mov Cap-2 Maneuver	-	-	-	-	-	-	277	342	-	274	339	-
Stage 1	-	-	-	-	-	-	687	645	-	646	585	-
Stage 2	-	-	-	-	-	-	511	579	-	574	634	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.6	2.1	17	19
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	386	1346	-	-	1279	-	-	376
HCM Lane V/C Ratio	0.225	0.017	-	-	0.058	-	-	0.319
HCM Control Delay (s)	17	7.7	0	-	8	0	-	19
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.9	0.1	-	-	0.2	-	-	1.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	80	32	118	56	2	25	43	99	2	30	2
Future Volume (vph)	2	80	32	118	56	2	25	43	99	2	30	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

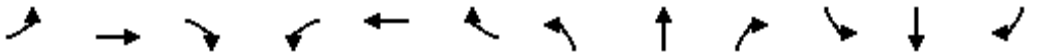
Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	2	80	32	118	56	2	25	43	99	2	30	2
Future Vol, veh/h	2	80	32	118	56	2	25	43	99	2	30	2
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	89	36	131	62	2	28	48	110	2	33	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	69	0	0	130	0	0	464	447	117	525	464	73
Stage 1	-	-	-	-	-	-	116	116	-	330	330	-
Stage 2	-	-	-	-	-	-	348	331	-	195	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1532	-	-	1455	-	-	508	506	935	463	495	989
Stage 1	-	-	-	-	-	-	889	800	-	683	646	-
Stage 2	-	-	-	-	-	-	668	645	-	807	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1525	-	-	1448	-	-	439	453	926	345	444	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	439	453	-	345	444	-
Stage 1	-	-	-	-	-	-	884	795	-	679	582	-
Stage 2	-	-	-	-	-	-	567	581	-	665	780	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.2	12.8	13.7
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	645	1525	-	-	1448	-	-	451
HCM Lane V/C Ratio	0.288	0.001	-	-	0.091	-	-	0.084
HCM Control Delay (s)	12.8	7.4	0	-	7.7	0	-	13.7
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.2	0	-	-	0.3	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	525	5	60	380	112	0	0	63	188
Future Volume (vph)	0	0	0	525	5	60	380	112	0	0	63	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	565.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	525	5	60	380	112	0	0	63	188
Future Vol, veh/h	0	0	0	525	5	60	380	112	0	0	63	188
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	625	6	71	452	133	0	0	75	224

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1112	1112	133	75	0	-	-	-	0
Stage 1	1037	1037	-	-	-	-	-	-	-
Stage 2	75	75	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	~ 231	209	916	1524	-	0	0	-	-
Stage 1	~ 342	308	-	-	-	0	0	-	-
Stage 2	948	833	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	~ 157	0	916	1524	-	-	-	-	-
Mov Cap-2 Maneuver	~ 157	0	-	-	-	-	-	-	-
Stage 1	~ 233	0	-	-	-	-	-	-	-
Stage 2	948	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1273.2	6.5	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1524	-	157	916	-	-
HCM Lane V/C Ratio	0.297	-	4.019	0.078	-	-
HCM Control Delay (s)	8.4	-	$ 1416.3	9.3	-	-
HCM Lane LOS	A	-	F	A	-	-
HCM 95th %tile Q(veh)	1.3	-	63	0.3	-	-

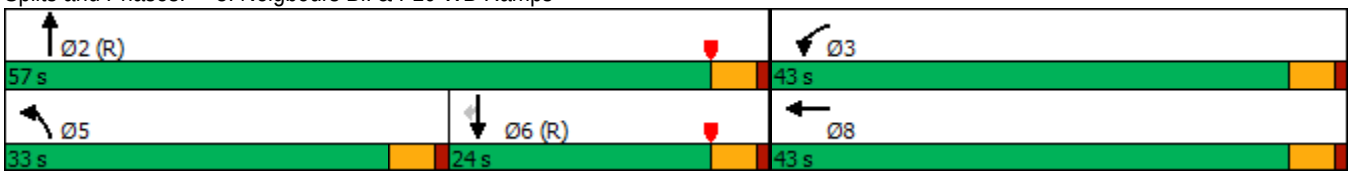
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

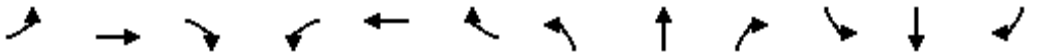
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	525	5	60	380	112	0	0	63	188
Future Volume (vph)	0	0	0	525	5	60	380	112	0	0	63	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	100		0	0		50
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type				Prot	NA		Prot	NA			NA	Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Detector Phase				3	8		5	2			6	6
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0
Minimum Split (s)				9.5	22.5		9.5	22.5			22.5	22.5
Total Split (s)				43.0	43.0		33.0	57.0			24.0	24.0
Total Split (%)				43.0%	43.0%		33.0%	57.0%			24.0%	24.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None		None	C-Max			C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Neigbours Bl. & I-10 WB Ramps

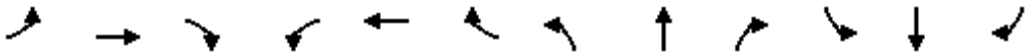




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	525	5	60	380	112	0	0	63	188
Future Volume (veh/h)	0	0	0	525	5	60	380	112	0	0	63	188
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				625	6	71	452	133	0	0	75	224
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				657	46	545	483	1012	0	0	422	357
Arrive On Green				0.37	0.37	0.37	0.27	0.54	0.00	0.00	0.23	0.23
Sat Flow, veh/h				1781	125	1479	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				625	0	77	452	133	0	0	75	224
Grp Sat Flow(s),veh/h/ln				1781	0	1604	1781	1870	0	0	1870	1585
Q Serve(g_s), s				34.1	0.0	3.2	24.8	3.5	0.0	0.0	3.2	12.7
Cycle Q Clear(g_c), s				34.1	0.0	3.2	24.8	3.5	0.0	0.0	3.2	12.7
Prop In Lane				1.00		0.92	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				657	0	591	483	1012	0	0	422	357
V/C Ratio(X)				0.95	0.00	0.13	0.94	0.13	0.00	0.00	0.18	0.63
Avail Cap(c_a), veh/h				686	0	618	508	1012	0	0	422	357
HCM Platoon Ratio				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.89	0.89	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	0.0	20.9	35.6	11.3	0.0	0.0	31.3	34.9
Incr Delay (d2), s/veh				22.7	0.0	0.1	22.6	0.2	0.0	0.0	0.9	8.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.3	0.0	1.2	13.6	1.5	0.0	0.0	1.6	5.7
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				53.4	0.0	21.0	58.2	11.6	0.0	0.0	32.2	43.0
LnGrp LOS				D	A	C	E	B	A	A	C	D
Approach Vol, veh/h					702			585			299	
Approach Delay, s/veh					49.9			47.6			40.3	
Approach LOS					D			D			D	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.6			31.6	27.0		41.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		52.5			28.5	19.5		38.5				
Max Q Clear Time (g_c+I1), s		5.5			26.8	14.7		36.1				
Green Ext Time (p_c), s		0.8			0.3	0.5		0.7				

Intersection Summary												
HCM 6th Ctrl Delay			47.2									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	4	147	0	0	0	0	430	532	187	398	0
Future Volume (vph)	62	4	147	0	0	0	0	430	532	187	398	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	5.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	62	4	147	0	0	0	0	430	532	187	398	0
Future Vol, veh/h	62	4	147	0	0	0	0	430	532	187	398	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	72	5	171	0	0	0	0	500	619	217	463	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1397	1397	463	-	0	0	500	0	0
Stage 1	897	897	-	-	-	-	-	-	-
Stage 2	500	500	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	155	141	599	0	-	-	1064	-	0
Stage 1	398	358	-	0	-	-	-	-	0
Stage 2	609	543	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	112	0	599	-	-	-	1064	-	-
Mov Cap-2 Maneuver	112	0	-	-	-	-	-	-	-
Stage 1	398	0	-	-	-	-	-	-	-
Stage 2	442	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	36.7	0	3
HCM LOS	E		

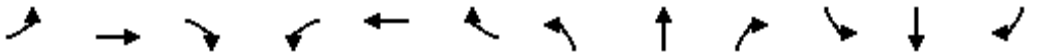
Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	112	599	1064	-
HCM Lane V/C Ratio	-	-	0.685	0.285	0.204	-
HCM Control Delay (s)	-	-	88.5	13.4	9.2	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	3.6	1.2	0.8	-

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	62	4	147	0	0	0	0	430	532	187	398	0
Future Volume (vph)	62	4	147	0	0	0	0	430	532	187	398	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	100		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2			
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5					22.5	22.5	9.5	22.5	
Total Split (s)	22.6	22.6	22.6					52.4	52.4	25.0	77.4	
Total Split (%)	22.6%	22.6%	22.6%					52.4%	52.4%	25.0%	77.4%	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5					4.5	4.5	4.5	4.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow	
Natural Cycle: 65	
Control Type: Actuated-Coordinated	

Splits and Phases: 4: Neigbours Bl. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	62	4	147	0	0	0	0	430	532	187	398	0
Future Volume (veh/h)	62	4	147	0	0	0	0	430	532	187	398	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	72	5	171				0	500	619	217	463	0
Peak Hour Factor	0.86	0.86	0.86				0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	217	15	206				0	1115	945	248	1460	0
Arrive On Green	0.13	0.13	0.13				0.00	0.60	0.60	0.28	1.00	0.00
Sat Flow, veh/h	1671	116	1585				0	1870	1585	1781	1870	0
Grp Volume(v), veh/h	77	0	171				0	500	619	217	463	0
Grp Sat Flow(s),veh/h/ln	1787	0	1585				0	1870	1585	1781	1870	0
Q Serve(g_s), s	3.9	0.0	10.5				0.0	14.7	25.9	11.6	0.0	0.0
Cycle Q Clear(g_c), s	3.9	0.0	10.5				0.0	14.7	25.9	11.6	0.0	0.0
Prop In Lane	0.94		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	232	0	206				0	1115	945	248	1460	0
V/C Ratio(X)	0.33	0.00	0.83				0.00	0.45	0.66	0.87	0.32	0.00
Avail Cap(c_a), veh/h	323	0	287				0	1115	945	365	1460	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.38	0.38	0.00
Uniform Delay (d), s/veh	39.6	0.0	42.5				0.0	11.1	13.4	35.2	0.0	0.0
Incr Delay (d2), s/veh	0.8	0.0	13.5				0.0	1.3	3.5	6.3	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.8	0.0	4.9				0.0	6.1	9.4	4.7	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	40.4	0.0	56.0				0.0	12.4	16.9	41.6	0.2	0.0
LnGrp LOS	D	A	E				A	B	B	D	A	A
Approach Vol, veh/h		248						1119			680	
Approach Delay, s/veh		51.1						14.9			13.4	
Approach LOS		D						B			B	

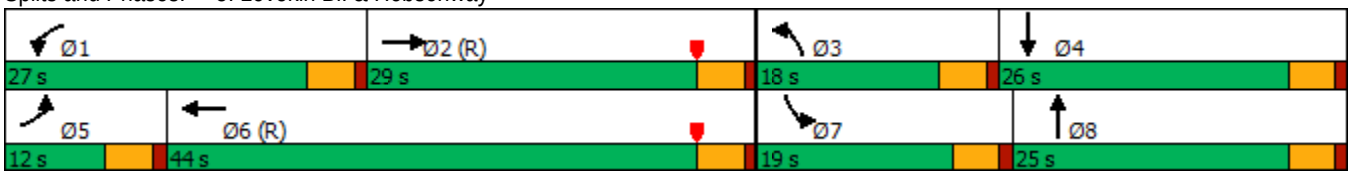
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	18.4	64.1		17.5		82.5
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	20.5	47.9		18.1		72.9
Max Q Clear Time (g_c+I1), s	13.6	27.9		12.5		2.0
Green Ext Time (p_c), s	0.3	5.9		0.5		3.4

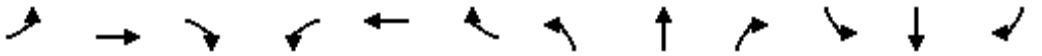
Intersection Summary			
HCM 6th Ctrl Delay			18.8
HCM 6th LOS			B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	28	214	96	159	197	63	79	181	130	85	219	47
Future Volume (vph)	28	214	96	159	197	63	79	181	130	85	219	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	12.0	29.0		27.0	44.0		18.0	25.0		19.0	26.0	
Total Split (%)	12.0%	29.0%		27.0%	44.0%		18.0%	25.0%		19.0%	26.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway

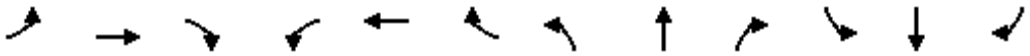




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	28	214	96	159	197	63	79	181	130	85	219	47
Future Volume (veh/h)	28	214	96	159	197	63	79	181	130	85	219	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	31	240	108	179	221	71	89	203	146	96	246	53
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	51	1011	440	215	1363	426	114	423	289	123	627	133
Arrive On Green	0.03	0.42	0.42	0.12	0.51	0.51	0.06	0.21	0.21	0.07	0.22	0.22
Sat Flow, veh/h	1781	2406	1048	1781	2662	832	1781	2013	1375	1781	2915	617
Grp Volume(v), veh/h	31	175	173	179	145	147	89	178	171	96	148	151
Grp Sat Flow(s),veh/h/ln	1781	1777	1677	1781	1777	1718	1781	1777	1611	1781	1777	1754
Q Serve(g_s), s	1.7	6.3	6.7	9.8	4.4	4.6	4.9	8.8	9.4	5.3	7.1	7.4
Cycle Q Clear(g_c), s	1.7	6.3	6.7	9.8	4.4	4.6	4.9	8.8	9.4	5.3	7.1	7.4
Prop In Lane	1.00		0.63	1.00		0.48	1.00		0.85	1.00		0.35
Lane Grp Cap(c), veh/h	51	746	705	215	910	879	114	374	339	123	382	377
V/C Ratio(X)	0.60	0.23	0.25	0.83	0.16	0.17	0.78	0.48	0.51	0.78	0.39	0.40
Avail Cap(c_a), veh/h	134	746	705	401	910	879	240	374	339	258	382	377
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	48.0	18.7	18.7	43.0	13.0	13.0	46.1	34.7	34.9	45.8	33.6	33.7
Incr Delay (d2), s/veh	10.8	0.7	0.8	8.1	0.4	0.4	10.8	4.3	5.3	10.3	3.0	3.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	2.7	2.7	4.7	1.8	1.8	2.5	4.2	4.1	2.7	3.3	3.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	58.8	19.4	19.6	51.1	13.3	13.4	56.9	39.0	40.2	56.1	36.6	36.9
LnGrp LOS	E	B	B	D	B	B	E	D	D	E	D	D
Approach Vol, veh/h		379			471			438			395	
Approach Delay, s/veh		22.7			27.7			43.1			41.4	
Approach LOS		C			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	16.6	46.5	10.9	26.0	7.4	55.7	11.4	25.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	24.5	13.5	21.5	7.5	39.5	14.5	20.5
Max Q Clear Time (g_c+I1), s	11.8	8.7	6.9	9.4	3.7	6.6	7.3	11.4
Green Ext Time (p_c), s	0.3	1.7	0.1	1.3	0.0	1.7	0.1	1.3

Intersection Summary	
HCM 6th Ctrl Delay	33.8
HCM 6th LOS	C



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	319	38	51	244	36	9	28	9	19	33	30
Future Volume (vph)	36	319	38	51	244	36	9	28	9	19	33	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

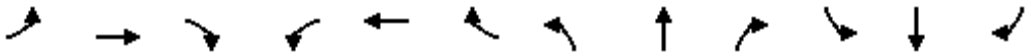
Intersection	
Int Delay, s/veh	4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕			↕			↕	
Traffic Vol, veh/h	36	319	38	51	244	36	9	28	9	19	33	30
Future Vol, veh/h	36	319	38	51	244	36	9	28	9	19	33	30
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	354	42	57	271	40	10	31	10	21	37	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	316	0	0	401	0	0	905	890	385	891	891	301
Stage 1	-	-	-	-	-	-	460	460	-	410	410	-
Stage 2	-	-	-	-	-	-	445	430	-	481	481	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1244	-	-	1158	-	-	257	282	663	263	282	739
Stage 1	-	-	-	-	-	-	581	566	-	619	595	-
Stage 2	-	-	-	-	-	-	592	583	-	566	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1238	-	-	1152	-	-	200	252	657	215	252	732
Mov Cap-2 Maneuver	-	-	-	-	-	-	200	252	-	215	252	-
Stage 1	-	-	-	-	-	-	554	539	-	590	556	-
Stage 2	-	-	-	-	-	-	494	545	-	501	528	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.3	21.3	21
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	271	1238	-	-	1152	-	-	315
HCM Lane V/C Ratio	0.189	0.032	-	-	0.049	-	-	0.289
HCM Control Delay (s)	21.3	8	0	-	8.3	0	-	21
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	0.7	0.1	-	-	0.2	-	-	1.2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	168	27	98	88	7	25	45	133	2	26	3
Future Volume (vph)	7	168	27	98	88	7	25	45	133	2	26	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

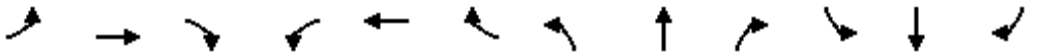
Intersection	
Int Delay, s/veh	6.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	7	168	27	98	88	7	25	45	133	2	26	3
Future Vol, veh/h	7	168	27	98	88	7	25	45	133	2	26	3
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	187	30	109	98	8	28	50	148	2	29	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	222	0	0	564	552	212	647	563	112
Stage 1	-	-	-	-	-	-	223	223	-	325	325	-
Stage 2	-	-	-	-	-	-	341	329	-	322	238	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1347	-	-	436	442	828	384	435	941
Stage 1	-	-	-	-	-	-	780	719	-	687	649	-
Stage 2	-	-	-	-	-	-	674	646	-	690	708	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1341	-	-	378	397	820	262	391	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	378	397	-	262	391	-
Stage 1	-	-	-	-	-	-	771	711	-	679	590	-
Stage 2	-	-	-	-	-	-	581	587	-	520	700	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	4	14.7	14.8
HCM LOS			B	B

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	594	1472	-	-	1341	-	-	401
HCM Lane V/C Ratio	0.38	0.005	-	-	0.081	-	-	0.086
HCM Control Delay (s)	14.7	7.5	0	-	7.9	0	-	14.8
HCM Lane LOS	B	A	A	-	A	A	-	B
HCM 95th %tile Q(veh)	1.8	0	-	-	0.3	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	5	180	202	107	0	0	85	47
Future Volume (vph)	0	0	0	510	5	180	202	107	0	0	85	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	275.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	510	5	180	202	107	0	0	85	47
Future Vol, veh/h	0	0	0	510	5	180	202	107	0	0	85	47
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	662	6	234	262	139	0	0	110	61

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	773	773	139	110	0	-	-	-	0
Stage 1	663	663	-	-	-	-	-	-	-
Stage 2	110	110	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	~ 367	330	909	1480	-	0	0	-	-
Stage 1	~ 512	459	-	-	-	0	0	-	-
Stage 2	915	804	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	~ 297	0	909	1480	-	-	-	-	-
Mov Cap-2 Maneuver	~ 297	0	-	-	-	-	-	-	-
Stage 1	~ 414	0	-	-	-	-	-	-	-
Stage 2	915	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 448.4	5.2	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1480	-	297	909	-	-
HCM Lane V/C Ratio	0.177	-	2.252	0.257	-	-
HCM Control Delay (s)	8	-	$ 601.5	10.3	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.6	-	51.4	1	-	-

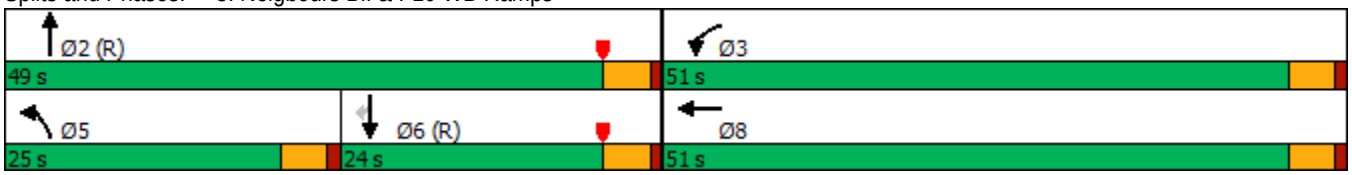
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

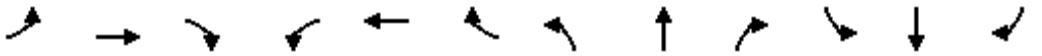
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	5	180	202	107	0	0	85	47
Future Volume (vph)	0	0	0	510	5	180	202	107	0	0	85	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	100		0	0		50
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Turn Type				Prot	NA		Prot	NA			NA	Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Detector Phase				3	8		5	2			6	6
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0
Minimum Split (s)				9.5	22.5		9.5	22.5			22.5	22.5
Total Split (s)				51.0	51.0		25.0	49.0			24.0	24.0
Total Split (%)				51.0%	51.0%		25.0%	49.0%			24.0%	24.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None		None	C-Max			C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Neigbours Bl. & I-10 WB Ramps





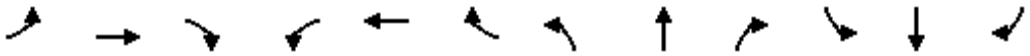
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	510	5	180	202	107	0	0	85	47
Future Volume (veh/h)	0	0	0	510	5	180	202	107	0	0	85	47
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				662	6	234	262	139	0	0	110	61
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				716	16	624	301	950	0	0	550	466
Arrive On Green				0.40	0.40	0.40	0.06	0.17	0.00	0.00	0.29	0.29
Sat Flow, veh/h				1781	40	1551	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				662	0	240	262	139	0	0	110	61
Grp Sat Flow(s),veh/h/ln				1781	0	1591	1781	1870	0	0	1870	1585
Q Serve(g_s), s				35.4	0.0	10.6	14.6	6.3	0.0	0.0	4.4	2.8
Cycle Q Clear(g_c), s				35.4	0.0	10.6	14.6	6.3	0.0	0.0	4.4	2.8
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				716	0	640	301	950	0	0	550	466
V/C Ratio(X)				0.92	0.00	0.38	0.87	0.15	0.00	0.00	0.20	0.13
Avail Cap(c_a), veh/h				828	0	740	365	950	0	0	550	466
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.98	0.98	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	0.0	21.1	46.1	23.1	0.0	0.0	26.5	25.9
Incr Delay (d2), s/veh				14.7	0.0	0.4	17.1	0.3	0.0	0.0	0.8	0.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				17.4	0.0	3.9	8.4	3.0	0.0	0.0	2.1	1.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.1	0.0	21.4	63.3	23.4	0.0	0.0	27.3	26.5
LnGrp LOS				D	A	C	E	C	A	A	C	C
Approach Vol, veh/h					902			401			171	
Approach Delay, s/veh					37.4			49.5			27.0	
Approach LOS					D			D			C	

Timer - Assigned Phs	2		5	6		8						
Phs Duration (G+Y+Rc), s	55.3		21.4	33.9		44.7						
Change Period (Y+Rc), s	4.5		4.5	4.5		4.5						
Max Green Setting (Gmax), s	44.5		20.5	19.5		46.5						
Max Q Clear Time (g_c+I1), s	8.3		16.6	6.4		37.4						
Green Ext Time (p_c), s	0.8		0.3	0.6		2.8						

Intersection Summary		
HCM 6th Ctrl Delay		39.5
HCM 6th LOS		D

Notes

User approved pedestrian interval to be less than phase max green.



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	1	248	0	0	0	0	196	614	57	525	0
Future Volume (vph)	108	1	248	0	0	0	0	196	614	57	525	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	18.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	108	1	248	0	0	0	0	196	614	57	525	0
Future Vol, veh/h	108	1	248	0	0	0	0	196	614	57	525	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	164	2	376	0	0	0	0	297	930	86	795	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1264	1264	795	-	0	0	297	0	0
Stage 1	967	967	-	-	-	-	-	-	-
Stage 2	297	297	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	187	169	388	0	-	-	1264	-	0
Stage 1	369	333	-	0	-	-	-	-	0
Stage 2	754	668	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	164	0	388	-	-	-	1264	-	-
Mov Cap-2 Maneuver	164	0	-	-	-	-	-	-	-
Stage 1	369	0	-	-	-	-	-	-	-
Stage 2	662	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	88.6	0	0.8
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	164	388	1264	-
HCM Lane V/C Ratio	-	-	1.007	0.968	0.068	-
HCM Control Delay (s)	-	-	128.3	71.2	8.1	-
HCM Lane LOS	-	-	F	F	A	-
HCM 95th %tile Q(veh)	-	-	7.9	11.1	0.2	-

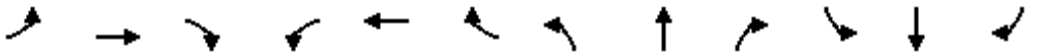
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	108	1	248	0	0	0	0	196	614	57	525	0
Future Volume (vph)	108	1	248	0	0	0	0	196	614	57	525	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	100		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2			
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5					22.5	22.5	9.5	22.5	
Total Split (s)	27.0	27.0	27.0					60.0	60.0	13.0	73.0	
Total Split (%)	27.0%	27.0%	27.0%					60.0%	60.0%	13.0%	73.0%	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5					4.5	4.5	4.5	4.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 60
Control Type: Actuated-Coordinated

Splits and Phases: 4: Neigbours Bl. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	108	1	248	0	0	0	0	196	614	57	525	0
Future Volume (veh/h)	108	1	248	0	0	0	0	196	614	57	525	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	164	2	376				0	297	930	86	795	0
Peak Hour Factor	0.66	0.66	0.66				0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	396	5	357				0	1083	918	109	1281	0
Arrive On Green	0.22	0.22	0.22				0.00	0.58	0.58	0.12	1.00	0.00
Sat Flow, veh/h	1761	21	1585				0	1870	1585	1781	1870	0
Grp Volume(v), veh/h	166	0	376				0	297	930	86	795	0
Grp Sat Flow(s),veh/h/ln	1782	0	1585				0	1870	1585	1781	1870	0
Q Serve(g_s), s	8.0	0.0	22.5				0.0	7.9	57.9	4.7	0.0	0.0
Cycle Q Clear(g_c), s	8.0	0.0	22.5				0.0	7.9	57.9	4.7	0.0	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	401	0	357				0	1083	918	109	1281	0
V/C Ratio(X)	0.41	0.00	1.05				0.00	0.27	1.01	0.79	0.62	0.00
Avail Cap(c_a), veh/h	401	0	357				0	1083	918	151	1281	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.51	0.51	0.00
Uniform Delay (d), s/veh	33.1	0.0	38.8				0.0	10.5	21.1	43.3	0.0	0.0
Incr Delay (d2), s/veh	0.7	0.0	62.7				0.0	0.6	33.1	9.4	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.5	0.0	14.8				0.0	3.3	27.7	2.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	33.8	0.0	101.4				0.0	11.2	54.1	52.7	1.2	0.0
LnGrp LOS	C	A	F				A	B	F	D	A	A
Approach Vol, veh/h		542						1227			881	
Approach Delay, s/veh		80.7						43.7			6.2	
Approach LOS		F						D			A	

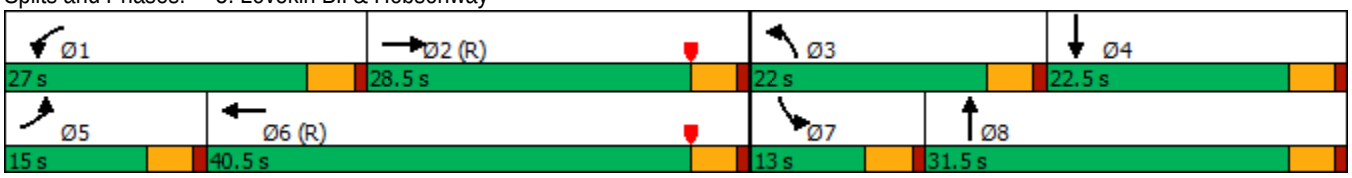
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	10.6	62.4		27.0		73.0
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	8.5	55.5		22.5		68.5
Max Q Clear Time (g_c+I1), s	6.7	59.9		24.5		2.0
Green Ext Time (p_c), s	0.0	0.0		0.0		7.5

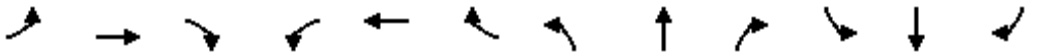
Intersection Summary	
HCM 6th Ctrl Delay	38.8
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	71	362	134	230	260	124	175	321	299	71	166	36
Future Volume (vph)	71	362	134	230	260	124	175	321	299	71	166	36
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	15.0	28.5		27.0	40.5		22.0	31.5		13.0	22.5	
Total Split (%)	15.0%	28.5%		27.0%	40.5%		22.0%	31.5%		13.0%	22.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	71	362	134	230	260	124	175	321	299	71	166	36
Future Volume (veh/h)	71	362	134	230	260	124	175	321	299	71	166	36
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	87	441	163	280	317	151	213	391	365	87	202	44
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	111	790	289	316	999	466	247	480	426	111	563	120
Arrive On Green	0.06	0.31	0.31	0.18	0.43	0.43	0.14	0.27	0.27	0.06	0.19	0.19
Sat Flow, veh/h	1781	2543	931	1781	2350	1095	1781	1777	1576	1781	2910	620
Grp Volume(v), veh/h	87	307	297	280	238	230	213	391	365	87	122	124
Grp Sat Flow(s),veh/h/ln	1781	1777	1697	1781	1777	1669	1781	1777	1576	1781	1777	1753
Q Serve(g_s), s	4.8	14.4	14.6	15.3	8.9	9.2	11.7	20.6	22.0	4.8	5.9	6.2
Cycle Q Clear(g_c), s	4.8	14.4	14.6	15.3	8.9	9.2	11.7	20.6	22.0	4.8	5.9	6.2
Prop In Lane	1.00		0.55	1.00		0.66	1.00		1.00	1.00		0.35
Lane Grp Cap(c), veh/h	111	552	527	316	755	709	247	480	426	111	344	339
V/C Ratio(X)	0.78	0.56	0.56	0.89	0.31	0.32	0.86	0.82	0.86	0.78	0.35	0.37
Avail Cap(c_a), veh/h	187	552	527	401	755	709	312	480	426	151	344	339
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	46.2	28.7	28.8	40.2	19.1	19.2	42.1	34.2	34.7	46.2	34.9	35.0
Incr Delay (d2), s/veh	11.2	4.0	4.3	17.6	1.1	1.2	17.9	14.1	19.5	16.7	2.8	3.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	6.6	6.4	8.1	3.8	3.7	6.3	10.5	10.5	2.6	2.8	2.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	57.4	32.7	33.1	57.7	20.2	20.4	60.0	48.3	54.2	63.0	37.7	38.0
LnGrp LOS	E	C	C	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		691			748			969			333	
Approach Delay, s/veh		36.0			34.3			53.1			44.4	
Approach LOS		D			C			D			D	

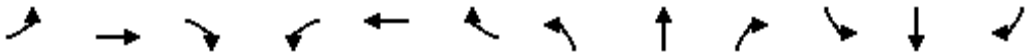
Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.2	35.6	18.4	23.9	10.8	47.0	10.7	31.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	22.5	24.0	17.5	18.0	10.5	36.0	8.5	27.0
Max Q Clear Time (g_c+I1), s	17.3	16.6	13.7	8.2	6.8	11.2	6.8	24.0
Green Ext Time (p_c), s	0.4	2.1	0.2	0.9	0.1	2.8	0.0	1.4

Intersection Summary	
HCM 6th Ctrl Delay	42.6
HCM 6th LOS	D

APPENDIX 6.2:

GENERAL PLAN (2040) WITH PROJECT CONDITIONS INTERSECTION OPERATIONS ANALYSIS WORKSHEETS

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	21	356	35	71	210	22	4	57	32	31	47	31
Future Volume (vph)	21	356	35	71	210	22	4	57	32	31	47	31
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

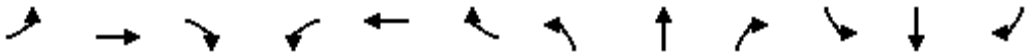
Intersection	
Int Delay, s/veh	6.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	21	356	35	71	210	22	4	57	32	31	47	31
Future Vol, veh/h	21	356	35	71	210	22	4	57	32	31	47	31
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	23	391	38	78	231	24	4	63	35	34	52	34

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	260	0	0	434	0	0	908	877	420	914	884	253
Stage 1	-	-	-	-	-	-	461	461	-	404	404	-
Stage 2	-	-	-	-	-	-	447	416	-	510	480	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1304	-	-	1126	-	-	256	287	633	254	284	786
Stage 1	-	-	-	-	-	-	581	565	-	623	599	-
Stage 2	-	-	-	-	-	-	591	592	-	546	554	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1298	-	-	1121	-	-	189	255	627	178	252	779
Mov Cap-2 Maneuver	-	-	-	-	-	-	189	255	-	178	252	-
Stage 1	-	-	-	-	-	-	565	549	-	606	547	-
Stage 2	-	-	-	-	-	-	468	541	-	444	538	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.4	2	21.9	28.3
HCM LOS			C	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	314	1298	-	-	1121	-	-	272
HCM Lane V/C Ratio	0.325	0.018	-	-	0.07	-	-	0.44
HCM Control Delay (s)	21.9	7.8	0	-	8.5	0	-	28.3
HCM Lane LOS	C	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.4	0.1	-	-	0.2	-	-	2.1



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	80	32	156	56	2	25	43	241	2	30	2
Future Volume (vph)	2	80	32	156	56	2	25	43	241	2	30	2
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

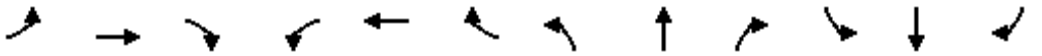
Intersection	
Int Delay, s/veh	9.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	2	80	32	156	56	2	25	43	241	2	30	2
Future Vol, veh/h	2	80	32	156	56	2	25	43	241	2	30	2
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	2	89	36	173	62	2	28	48	268	2	33	2

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	69	0	0	130	0	0	548	531	117	688	548	73
Stage 1	-	-	-	-	-	-	116	116	-	414	414	-
Stage 2	-	-	-	-	-	-	432	415	-	274	134	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1532	-	-	1455	-	-	447	454	935	360	444	989
Stage 1	-	-	-	-	-	-	889	800	-	616	593	-
Stage 2	-	-	-	-	-	-	602	592	-	732	785	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1525	-	-	1448	-	-	374	393	926	208	385	980
Mov Cap-2 Maneuver	-	-	-	-	-	-	374	393	-	208	385	-
Stage 1	-	-	-	-	-	-	884	795	-	612	517	-
Stage 2	-	-	-	-	-	-	490	516	-	486	780	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	5.7	14.8	15.5
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	708	1525	-	-	1448	-	-	380
HCM Lane V/C Ratio	0.485	0.001	-	-	0.12	-	-	0.099
HCM Control Delay (s)	14.8	7.4	0	-	7.8	0	-	15.5
HCM Lane LOS	B	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	2.7	0	-	-	0.4	-	-	0.3



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	525	5	88	380	225	0	0	74	215
Future Volume (vph)	0	0	0	525	5	88	380	225	0	0	74	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	685.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	525	5	88	380	225	0	0	74	215
Future Vol, veh/h	0	0	0	525	5	88	380	225	0	0	74	215
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	84	84	84	84	84	84	84	84	84	84	84	84
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	625	6	105	452	268	0	0	88	256

Major/Minor	Minor1		Major1			Major2			
Conflicting Flow All	1260	1260	268	88	0	-	-	-	0
Stage 1	1172	1172	-	-	-	-	-	-	-
Stage 2	88	88	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	~ 188	170	771	1508	-	0	0	-	-
Stage 1	~ 294	266	-	-	-	0	0	-	-
Stage 2	935	822	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	~ 122	0	771	1508	-	-	-	-	-
Mov Cap-2 Maneuver	~ 122	0	-	-	-	-	-	-	-
Stage 1	~ 191	0	-	-	-	-	-	-	-
Stage 2	935	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 1671.8	5.3	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1508	-	122	771	-	-
HCM Lane V/C Ratio	0.3	-	5.172	0.136	-	-
HCM Control Delay (s)	8.4	-	$ 1947.7	10.4	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	1.3	-	67.1	0.5	-	-

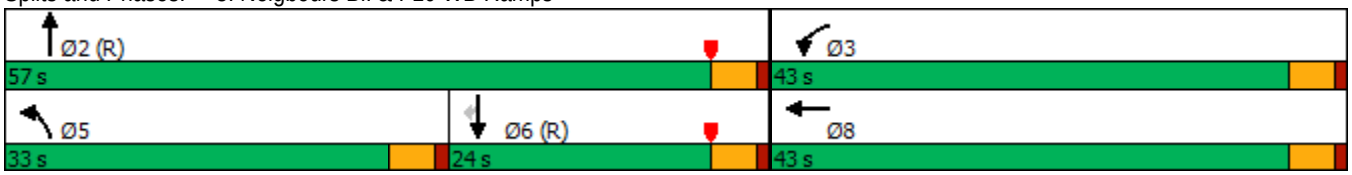
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

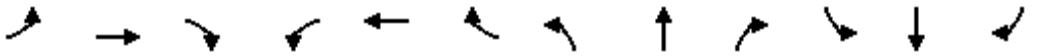
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	525	5	88	380	225	0	0	74	215
Future Volume (vph)	0	0	0	525	5	88	380	225	0	0	74	215
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	100		0	0		50
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Shared Lane Traffic (%)												
Turn Type				Prot	NA		Prot	NA			NA	Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Detector Phase				3	8		5	2			6	6
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0
Minimum Split (s)				9.5	22.5		9.5	22.5			22.5	22.5
Total Split (s)				43.0	43.0		33.0	57.0			24.0	24.0
Total Split (%)				43.0%	43.0%		33.0%	57.0%			24.0%	24.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None		None	C-Max			C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated

Splits and Phases: 3: Neigbours Bl. & I-10 WB Ramps

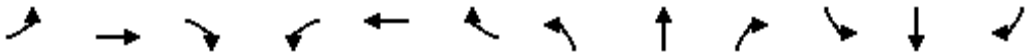




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	525	5	88	380	225	0	0	74	215
Future Volume (veh/h)	0	0	0	525	5	88	380	225	0	0	74	215
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				625	6	105	452	268	0	0	88	256
Peak Hour Factor				0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				657	32	558	476	1012	0	0	427	362
Arrive On Green				0.37	0.37	0.37	0.45	0.90	0.00	0.00	0.23	0.23
Sat Flow, veh/h				1781	86	1512	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				625	0	111	452	268	0	0	88	256
Grp Sat Flow(s),veh/h/ln				1781	0	1598	1781	1870	0	0	1870	1585
Q Serve(g_s), s				34.1	0.0	4.7	24.4	1.8	0.0	0.0	3.8	14.9
Cycle Q Clear(g_c), s				34.1	0.0	4.7	24.4	1.8	0.0	0.0	3.8	14.9
Prop In Lane				1.00		0.95	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				657	0	590	476	1012	0	0	427	362
V/C Ratio(X)				0.95	0.00	0.19	0.95	0.26	0.00	0.00	0.21	0.71
Avail Cap(c_a), veh/h				686	0	615	508	1012	0	0	427	362
HCM Platoon Ratio				1.00	1.00	1.00	1.67	1.67	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.85	0.85	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				30.7	0.0	21.4	27.0	2.3	0.0	0.0	31.2	35.5
Incr Delay (d2), s/veh				22.5	0.0	0.2	24.1	0.5	0.0	0.0	1.1	11.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				18.2	0.0	1.8	11.5	0.7	0.0	0.0	1.8	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				53.2	0.0	21.5	51.1	2.9	0.0	0.0	32.3	46.5
LnGrp LOS				D	A	C	D	A	A	A	C	D
Approach Vol, veh/h					736			720			344	
Approach Delay, s/veh					48.4			33.2			42.9	
Approach LOS					D			C			D	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		58.6			31.2	27.4		41.4				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		52.5			28.5	19.5		38.5				
Max Q Clear Time (g_c+I1), s		3.8			26.4	16.9		36.1				
Green Ext Time (p_c), s		1.7			0.4	0.4		0.8				

Intersection Summary												
HCM 6th Ctrl Delay			41.3									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	4	147	0	0	0	0	444	532	195	402	0
Future Volume (vph)	161	4	147	0	0	0	0	444	532	195	402	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	44.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	161	4	147	0	0	0	0	444	532	195	402	0
Future Vol, veh/h	161	4	147	0	0	0	0	444	532	195	402	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	86	86	86	86	86	86	86	86	86	86	86	86
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	187	5	171	0	0	0	0	516	619	227	467	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1437	1437	467	-	0	0	516	0	0
Stage 1	921	921	-	-	-	-	-	-	-
Stage 2	516	516	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 147	133	596	0	-	-	1050	-	0
Stage 1	388	349	-	0	-	-	-	-	0
Stage 2	599	534	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 104	0	596	-	-	-	1050	-	-
Mov Cap-2 Maneuver	~ 104	0	-	-	-	-	-	-	-
Stage 1	388	0	-	-	-	-	-	-	-
Stage 2	424	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	262.5	0	3.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	104	596	1050	-
HCM Lane V/C Ratio	-	-	1.845	0.287	0.216	-
HCM Control Delay (s)	-	-	$ 484.4	13.5	9.4	-
HCM Lane LOS	-	-	F	B	A	-
HCM 95th %tile Q(veh)	-	-	15.6	1.2	0.8	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

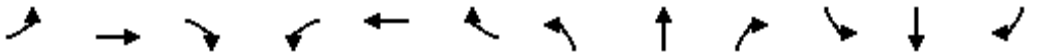
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	161	4	147	0	0	0	0	444	532	195	402	0
Future Volume (vph)	161	4	147	0	0	0	0	444	532	195	402	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	100		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2			
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5					22.5	22.5	9.5	22.5	
Total Split (s)	23.0	23.0	23.0					52.0	52.0	25.0	77.0	
Total Split (%)	23.0%	23.0%	23.0%					52.0%	52.0%	25.0%	77.0%	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5					4.5	4.5	4.5	4.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Neigbours Bl. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	161	4	147	0	0	0	0	444	532	195	402	0
Future Volume (veh/h)	161	4	147	0	0	0	0	444	532	195	402	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	187	5	171				0	516	619	227	467	0
Peak Hour Factor	0.86	0.86	0.86				0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	232	6	212				0	1098	930	258	1452	0
Arrive On Green	0.13	0.13	0.13				0.00	0.59	0.59	0.29	1.00	0.00
Sat Flow, veh/h	1737	46	1585				0	1870	1585	1781	1870	0
Grp Volume(v), veh/h	192	0	171				0	516	619	227	467	0
Grp Sat Flow(s),veh/h/ln	1784	0	1585				0	1870	1585	1781	1870	0
Q Serve(g_s), s	10.5	0.0	10.5				0.0	15.7	26.5	12.2	0.0	0.0
Cycle Q Clear(g_c), s	10.5	0.0	10.5				0.0	15.7	26.5	12.2	0.0	0.0
Prop In Lane	0.97		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	238	0	212				0	1098	930	258	1452	0
V/C Ratio(X)	0.81	0.00	0.81				0.00	0.47	0.67	0.88	0.32	0.00
Avail Cap(c_a), veh/h	330	0	293				0	1098	930	365	1452	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.40	0.40	0.00
Uniform Delay (d), s/veh	42.1	0.0	42.1				0.0	11.8	14.0	34.7	0.0	0.0
Incr Delay (d2), s/veh	9.8	0.0	11.0				0.0	1.4	3.8	7.4	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.2	0.0	4.7				0.0	6.6	9.7	4.9	0.1	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	51.8	0.0	53.1				0.0	13.2	17.8	42.1	0.2	0.0
LnGrp LOS	D	A	D				A	B	B	D	A	A
Approach Vol, veh/h		363						1135			694	
Approach Delay, s/veh		52.4						15.7			13.9	
Approach LOS		D						B			B	

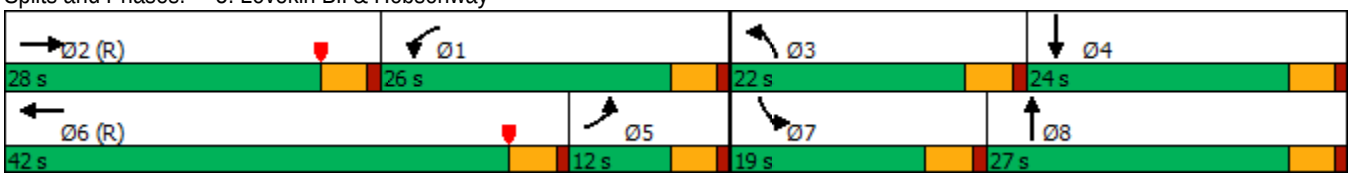
Timer - Assigned Phs	1	2		4		6						
Phs Duration (G+Y+Rc), s	19.0	63.2		17.8		82.2						
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5						
Max Green Setting (Gmax), s	20.5	47.5		18.5		72.5						
Max Q Clear Time (g_c+I1), s	14.2	28.5		12.5		2.0						
Green Ext Time (p_c), s	0.3	5.9		0.9		3.4						

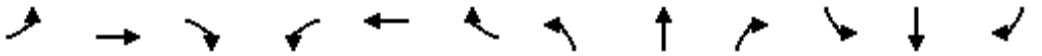
Intersection Summary			
HCM 6th Ctrl Delay		21.2	
HCM 6th LOS		C	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	229	107	159	254	63	121	181	130	85	219	75
Future Volume (vph)	36	229	107	159	254	63	121	181	130	85	219	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	12.0	28.0		26.0	42.0		22.0	27.0		19.0	24.0	
Total Split (%)	12.0%	28.0%		26.0%	42.0%		22.0%	27.0%		19.0%	24.0%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lag	Lead		Lag	Lead		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 70	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	36	229	107	159	254	63	121	181	130	85	219	75
Future Volume (veh/h)	36	229	107	159	254	63	121	181	130	85	219	75
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.99	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	40	257	120	179	285	71	136	203	146	96	246	84
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89	0.89
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	269	557	252	518	1060	260	168	453	309	123	521	173
Arrive On Green	0.15	0.23	0.23	0.29	0.38	0.38	0.09	0.22	0.22	0.07	0.20	0.20
Sat Flow, veh/h	1781	2372	1074	1781	2827	692	1781	2013	1375	1781	2614	869
Grp Volume(v), veh/h	40	191	186	179	177	179	136	178	171	96	165	165
Grp Sat Flow(s),veh/h/ln	1781	1777	1669	1781	1777	1742	1781	1777	1612	1781	1777	1706
Q Serve(g_s), s	2.0	9.2	9.6	7.9	6.9	7.1	7.5	8.6	9.2	5.3	8.2	8.6
Cycle Q Clear(g_c), s	2.0	9.2	9.6	7.9	6.9	7.1	7.5	8.6	9.2	5.3	8.2	8.6
Prop In Lane	1.00		0.64	1.00		0.40	1.00		0.85	1.00		0.51
Lane Grp Cap(c), veh/h	269	418	392	518	666	653	168	400	363	123	354	340
V/C Ratio(X)	0.15	0.46	0.48	0.35	0.27	0.27	0.81	0.44	0.47	0.78	0.47	0.48
Avail Cap(c_a), veh/h	269	418	392	518	666	653	312	400	363	258	354	340
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	36.9	32.8	32.9	27.9	21.7	21.8	44.4	33.4	33.6	45.8	35.3	35.5
Incr Delay (d2), s/veh	0.3	3.6	4.1	0.4	1.0	1.0	8.8	3.6	4.4	10.3	4.4	4.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	4.3	4.3	3.4	3.0	3.0	3.7	4.0	4.0	2.7	3.9	4.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.1	36.3	37.0	28.3	22.7	22.8	53.2	36.9	38.0	56.1	39.7	40.3
LnGrp LOS	D	D	D	C	C	C	D	D	D	E	D	D
Approach Vol, veh/h		417			535			485			426	
Approach Delay, s/veh		36.7			24.6			41.8			43.6	
Approach LOS		D			C			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	33.6	28.0	14.0	24.4	19.6	42.0	11.4	27.0
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	21.5	23.5	17.5	19.5	7.5	37.5	14.5	22.5
Max Q Clear Time (g_c+I1), s	9.9	11.6	9.5	10.6	4.0	9.1	7.3	11.2
Green Ext Time (p_c), s	0.3	1.7	0.2	1.2	0.0	2.1	0.1	1.5

Intersection Summary	
HCM 6th Ctrl Delay	36.2
HCM 6th LOS	D



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	240	156	127	261	42	34
Future Volume (vph)	240	156	127	261	42	34
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	45			45	30	
Link Distance (ft)	2001			786	364	
Travel Time (s)	30.3			11.9	8.3	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

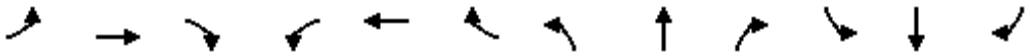
Intersection	
Int Delay, s/veh	2.9

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	240	156	127	261	42	34
Future Vol, veh/h	240	156	127	261	42	34
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	261	170	138	284	46	37

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	436	0	916	356
Stage 1	-	-	-	-	351	-
Stage 2	-	-	-	-	565	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1124	-	302	688
Stage 1	-	-	-	-	713	-
Stage 2	-	-	-	-	569	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1119	-	255	681
Mov Cap-2 Maneuver	-	-	-	-	255	-
Stage 1	-	-	-	-	709	-
Stage 2	-	-	-	-	484	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	18.2
HCM LOS			C

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	354	-	-	1119	-
HCM Lane V/C Ratio	0.233	-	-	0.123	-
HCM Control Delay (s)	18.2	-	-	8.7	0
HCM Lane LOS	C	-	-	A	A
HCM 95th %tile Q(veh)	0.9	-	-	0.4	-



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	36	376	38	65	379	36	9	28	15	19	33	30
Future Volume (vph)	36	376	38	65	379	36	9	28	15	19	33	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		10532			2001			472			366	
Travel Time (s)		159.6			30.3			10.7			8.3	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

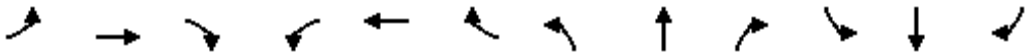
Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	36	376	38	65	379	36	9	28	15	19	33	30
Future Vol, veh/h	36	376	38	65	379	36	9	28	15	19	33	30
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	40	418	42	72	421	40	10	31	17	21	37	33

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	466	0	0	465	0	0	1149	1134	449	1138	1135	451
Stage 1	-	-	-	-	-	-	524	524	-	590	590	-
Stage 2	-	-	-	-	-	-	625	610	-	548	545	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1095	-	-	1096	-	-	176	203	610	179	202	608
Stage 1	-	-	-	-	-	-	537	530	-	494	495	-
Stage 2	-	-	-	-	-	-	473	485	-	521	519	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1090	-	-	1091	-	-	124	174	604	134	173	602
Mov Cap-2 Maneuver	-	-	-	-	-	-	124	174	-	134	173	-
Stage 1	-	-	-	-	-	-	507	501	-	467	448	-
Stage 2	-	-	-	-	-	-	372	439	-	449	490	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.7	1.2	30	33.7
HCM LOS			D	D

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	201	1090	-	-	1091	-	-	214
HCM Lane V/C Ratio	0.287	0.037	-	-	0.066	-	-	0.426
HCM Control Delay (s)	30	8.4	0	-	8.5	0	-	33.7
HCM Lane LOS	D	A	A	-	A	A	-	D
HCM 95th %tile Q(veh)	1.1	0.1	-	-	0.2	-	-	2



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	7	168	27	233	88	7	25	45	190	2	26	3
Future Volume (vph)	7	168	27	233	88	7	25	45	190	2	26	3
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Link Speed (mph)		45			45			30			30	
Link Distance (ft)		488			10532			1005			368	
Travel Time (s)		7.4			159.6			22.8			8.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Shared Lane Traffic (%)												
Sign Control		Free			Free			Stop			Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

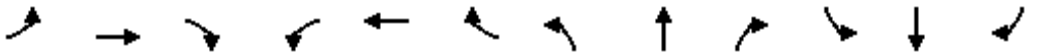
Intersection	
Int Delay, s/veh	10.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		⇕			⇕			⇕			⇕	
Traffic Vol, veh/h	7	168	27	233	88	7	25	45	190	2	26	3
Future Vol, veh/h	7	168	27	233	88	7	25	45	190	2	26	3
Conflicting Peds, #/hr	5	0	5	5	0	5	5	0	5	5	0	5
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	90	90	90	90	90	90	90	90	90	90	90	90
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	8	187	30	259	98	8	28	50	211	2	29	3

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	111	0	0	222	0	0	864	852	212	979	863	112
Stage 1	-	-	-	-	-	-	223	223	-	625	625	-
Stage 2	-	-	-	-	-	-	641	629	-	354	238	-
Critical Hdwy	4.12	-	-	4.12	-	-	7.12	6.52	6.22	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.12	5.52	-	6.12	5.52	-
Follow-up Hdwy	2.218	-	-	2.218	-	-	3.518	4.018	3.318	3.518	4.018	3.318
Pot Cap-1 Maneuver	1479	-	-	1347	-	-	274	297	828	229	292	941
Stage 1	-	-	-	-	-	-	780	719	-	473	477	-
Stage 2	-	-	-	-	-	-	463	475	-	663	708	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	1472	-	-	1341	-	-	206	232	820	119	228	932
Mov Cap-2 Maneuver	-	-	-	-	-	-	206	232	-	119	228	-
Stage 1	-	-	-	-	-	-	771	711	-	468	377	-
Stage 2	-	-	-	-	-	-	337	376	-	453	700	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.3	5.9	23.6	23.3
HCM LOS			C	C

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1
Capacity (veh/h)	475	1472	-	-	1341	-	-	231
HCM Lane V/C Ratio	0.608	0.005	-	-	0.193	-	-	0.149
HCM Control Delay (s)	23.6	7.5	0	-	8.3	0	-	23.3
HCM Lane LOS	C	A	A	-	A	A	-	C
HCM 95th %tile Q(veh)	4	0	-	-	0.7	-	-	0.5



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	5	191	202	152	0	0	126	142
Future Volume (vph)	0	0	0	510	5	191	202	152	0	0	126	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		50	0		0	0		50
Storage Lanes	0		0	0		1	0		0	0		1
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	313.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	0	0	510	5	191	202	152	0	0	126	142
Future Vol, veh/h	0	0	0	510	5	191	202	152	0	0	126	142
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	Yield	-	-	None	-	-	Yield
Storage Length	-	-	-	-	-	50	-	-	-	-	-	50
Veh in Median Storage, #	-	1	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	77	77	77	77	77	77	77	77	77	77	77	77
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	662	6	248	262	197	0	0	164	184

Major/Minor	Minor1		Major1		Major2				
Conflicting Flow All	885	885	197	164	0	-	-	-	0
Stage 1	721	721	-	-	-	-	-	-	-
Stage 2	164	164	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-	-	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-	-	-	-
Pot Cap-1 Maneuver	~ 315	284	844	1414	-	0	0	-	-
Stage 1	~ 482	432	-	-	-	0	0	-	-
Stage 2	865	762	-	-	-	0	0	-	-
Platoon blocked, %					-			-	-
Mov Cap-1 Maneuver	~ 249	0	844	1414	-	-	-	-	-
Mov Cap-2 Maneuver	~ 249	0	-	-	-	-	-	-	-
Stage 1	~ 382	0	-	-	-	-	-	-	-
Stage 2	865	0	-	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	$ 587	4.6	0
HCM LOS	F		

Minor Lane/Major Mvmt	NBL	NBT	WBLn1	WBLn2	SBT	SBR
Capacity (veh/h)	1414	-	249	844	-	-
HCM Lane V/C Ratio	0.186	-	2.686	0.294	-	-
HCM Control Delay (s)	8.1	-	$ 800.6	11	-	-
HCM Lane LOS	A	-	F	B	-	-
HCM 95th %tile Q(veh)	0.7	-	56.9	1.2	-	-

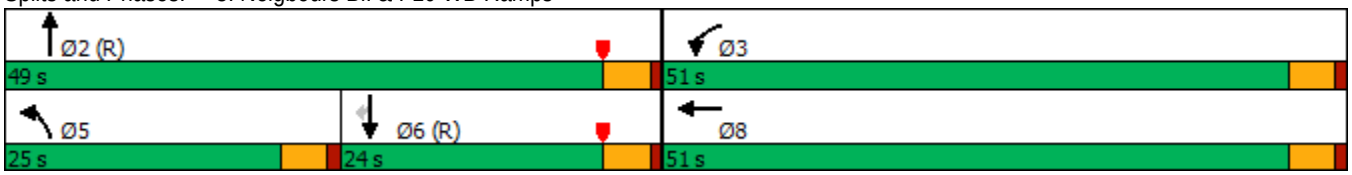
Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

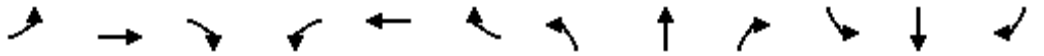
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	5	191	202	152	0	0	126	142
Future Volume (vph)	0	0	0	510	5	191	202	152	0	0	126	142
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		0	100		0	0		50
Storage Lanes	0		0	1		0	1		0	0		1
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		775			865			541			1005	
Travel Time (s)		17.6			19.7			12.3			22.8	
Peak Hour Factor	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Shared Lane Traffic (%)												
Turn Type				Prot	NA		Prot	NA			NA	Perm
Protected Phases				3	8		5	2			6	
Permitted Phases												6
Detector Phase				3	8		5	2			6	6
Switch Phase												
Minimum Initial (s)				5.0	5.0		5.0	5.0			5.0	5.0
Minimum Split (s)				9.5	22.5		9.5	22.5			22.5	22.5
Total Split (s)				51.0	51.0		25.0	49.0			24.0	24.0
Total Split (%)				51.0%	51.0%		25.0%	49.0%			24.0%	24.0%
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	3.5
All-Red Time (s)				1.0	1.0		1.0	1.0			1.0	1.0
Lost Time Adjust (s)				0.0	0.0		0.0	0.0			0.0	0.0
Total Lost Time (s)				4.5	4.5		4.5	4.5			4.5	4.5
Lead/Lag							Lead				Lag	Lag
Lead-Lag Optimize?							Yes				Yes	Yes
Recall Mode				None	None		None	C-Max			C-Max	C-Max

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 3: Neigbours Bl. & I-10 WB Ramps

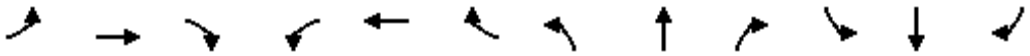




Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	510	5	191	202	152	0	0	126	142
Future Volume (veh/h)	0	0	0	510	5	191	202	152	0	0	126	142
Initial Q (Qb), veh				0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj				1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach					No			No			No	
Adj Sat Flow, veh/h/ln				1870	1870	1870	1870	1870	0	0	1870	1870
Adj Flow Rate, veh/h				662	6	248	262	197	0	0	164	184
Peak Hour Factor				0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Percent Heavy Veh, %				2	2	2	2	2	0	0	2	2
Cap, veh/h				717	15	625	301	949	0	0	549	466
Arrive On Green				0.40	0.40	0.40	0.06	0.17	0.00	0.00	0.29	0.29
Sat Flow, veh/h				1781	38	1553	1781	1870	0	0	1870	1585
Grp Volume(v), veh/h				662	0	254	262	197	0	0	164	184
Grp Sat Flow(s),veh/h/ln				1781	0	1591	1781	1870	0	0	1870	1585
Q Serve(g_s), s				35.3	0.0	11.4	14.6	9.1	0.0	0.0	6.8	9.3
Cycle Q Clear(g_c), s				35.3	0.0	11.4	14.6	9.1	0.0	0.0	6.8	9.3
Prop In Lane				1.00		0.98	1.00		0.00	0.00		1.00
Lane Grp Cap(c), veh/h				717	0	640	301	949	0	0	549	466
V/C Ratio(X)				0.92	0.00	0.40	0.87	0.21	0.00	0.00	0.30	0.40
Avail Cap(c_a), veh/h				828	0	740	365	949	0	0	549	466
HCM Platoon Ratio				1.00	1.00	1.00	0.33	0.33	1.00	1.00	1.00	1.00
Upstream Filter(I)				1.00	0.00	1.00	0.97	0.97	0.00	0.00	1.00	1.00
Uniform Delay (d), s/veh				28.4	0.0	21.2	46.1	24.3	0.0	0.0	27.3	28.2
Incr Delay (d2), s/veh				14.6	0.0	0.4	17.0	0.5	0.0	0.0	1.4	2.5
Initial Q Delay(d3),s/veh				0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				17.4	0.0	4.2	8.4	4.5	0.0	0.0	3.2	3.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh				43.0	0.0	21.6	63.1	24.8	0.0	0.0	28.7	30.7
LnGrp LOS				D	A	C	E	C	A	A	C	C
Approach Vol, veh/h					916			459			348	
Approach Delay, s/veh					37.1			46.7			29.8	
Approach LOS					D			D			C	

Timer - Assigned Phs		2			5	6		8				
Phs Duration (G+Y+Rc), s		55.2			21.4	33.9		44.8				
Change Period (Y+Rc), s		4.5			4.5	4.5		4.5				
Max Green Setting (Gmax), s		44.5			20.5	19.5		46.5				
Max Q Clear Time (g_c+I1), s		11.1			16.6	11.3		37.3				
Green Ext Time (p_c), s		1.2			0.3	1.0		2.9				

Intersection Summary												
HCM 6th Ctrl Delay			38.1									
HCM 6th LOS			D									



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	1	248	0	0	0	0	202	614	84	539	0
Future Volume (vph)	148	1	248	0	0	0	0	202	614	84	539	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	0		0
Storage Lanes	0		1	0		0	0		1	0		0
Taper Length (ft)	90			90			90			90		
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Sign Control		Stop			Stop			Free			Free	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	45.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	148	1	248	0	0	0	0	202	614	84	539	0
Future Vol, veh/h	148	1	248	0	0	0	0	202	614	84	539	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	Yield	-	-	None	-	-	Yield	-	-	None
Storage Length	-	-	50	-	-	-	-	-	50	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	66	66	66	66	66	66	66	66	66	66	66	66
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	224	2	376	0	0	0	0	306	930	127	817	0

Major/Minor	Minor2			Major1			Major2		
Conflicting Flow All	1377	1377	817	-	0	0	306	0	0
Stage 1	1071	1071	-	-	-	-	-	-	-
Stage 2	306	306	-	-	-	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	-	-	-	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	-	-	-	2.218	-	-
Pot Cap-1 Maneuver	~ 160	145	376	0	-	-	1255	-	0
Stage 1	329	297	-	0	-	-	-	-	0
Stage 2	747	662	-	0	-	-	-	-	0
Platoon blocked, %					-	-		-	
Mov Cap-1 Maneuver	~ 130	0	376	-	-	-	1255	-	-
Mov Cap-2 Maneuver	~ 130	0	-	-	-	-	-	-	-
Stage 1	329	0	-	-	-	-	-	-	-
Stage 2	609	0	-	-	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	207.6	0	1.1
HCM LOS	F		

Minor Lane/Major Mvmt	NBT	NBR	EBLn1	EBLn2	SBL	SBT
Capacity (veh/h)	-	-	130	376	1255	-
HCM Lane V/C Ratio	-	-	1.737	0.999	0.101	-
HCM Control Delay (s)	-	-	$ 420	80	8.2	-
HCM Lane LOS	-	-	F	F	A	-
HCM 95th %tile Q(veh)	-	-	17	11.9	0.3	-

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

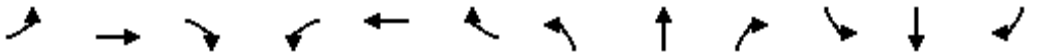
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	148	1	248	0	0	0	0	202	614	84	539	0
Future Volume (vph)	148	1	248	0	0	0	0	202	614	84	539	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		50	0		0	0		50	100		0
Storage Lanes	0		1	0		0	0		1	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		500			557			711			541	
Travel Time (s)		11.4			12.7			16.2			12.3	
Peak Hour Factor	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66	0.66
Shared Lane Traffic (%)												
Turn Type	Perm	NA	Perm					NA	Perm	Prot	NA	
Protected Phases		4						2		1	6	
Permitted Phases	4		4						2			
Detector Phase	4	4	4					2	2	1	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Minimum Split (s)	22.5	22.5	22.5					22.5	22.5	9.5	22.5	
Total Split (s)	26.0	26.0	26.0					58.0	58.0	16.0	74.0	
Total Split (%)	26.0%	26.0%	26.0%					58.0%	58.0%	16.0%	74.0%	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	1.0	1.0	1.0					1.0	1.0	1.0	1.0	
Lost Time Adjust (s)		0.0	0.0					0.0	0.0	0.0	0.0	
Total Lost Time (s)		4.5	4.5					4.5	4.5	4.5	4.5	
Lead/Lag								Lag	Lag	Lead		
Lead-Lag Optimize?								Yes	Yes	Yes		
Recall Mode	None	None	None					C-Max	C-Max	None	C-Max	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Yellow
Natural Cycle: 65
Control Type: Actuated-Coordinated

Splits and Phases: 4: Neigbours Bl. & I-10 EB Ramps





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	148	1	248	0	0	0	0	202	614	84	539	0
Future Volume (veh/h)	148	1	248	0	0	0	0	202	614	84	539	0
Initial Q (Qb), veh	0	0	0				0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00				1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00				1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No						No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870				0	1870	1870	1870	1870	0
Adj Flow Rate, veh/h	224	2	376				0	306	930	127	817	0
Peak Hour Factor	0.66	0.66	0.66				0.66	0.66	0.66	0.66	0.66	0.66
Percent Heavy Veh, %	2	2	2				0	2	2	2	2	0
Cap, veh/h	380	3	341				0	1053	893	155	1300	0
Arrive On Green	0.22	0.22	0.22				0.00	0.56	0.56	0.17	1.00	0.00
Sat Flow, veh/h	1766	16	1585				0	1870	1585	1781	1870	0
Grp Volume(v), veh/h	226	0	376				0	306	930	127	817	0
Grp Sat Flow(s),veh/h/ln	1782	0	1585				0	1870	1585	1781	1870	0
Q Serve(g_s), s	11.4	0.0	21.5				0.0	8.5	56.3	6.9	0.0	0.0
Cycle Q Clear(g_c), s	11.4	0.0	21.5				0.0	8.5	56.3	6.9	0.0	0.0
Prop In Lane	0.99		1.00				0.00		1.00	1.00		0.00
Lane Grp Cap(c), veh/h	383	0	341				0	1053	893	155	1300	0
V/C Ratio(X)	0.59	0.00	1.10				0.00	0.29	1.04	0.82	0.63	0.00
Avail Cap(c_a), veh/h	383	0	341				0	1053	893	205	1300	0
HCM Platoon Ratio	1.00	1.00	1.00				1.00	1.00	1.00	2.00	2.00	1.00
Upstream Filter(I)	1.00	0.00	1.00				0.00	1.00	1.00	0.53	0.53	0.00
Uniform Delay (d), s/veh	35.3	0.0	39.3				0.0	11.4	21.8	40.6	0.0	0.0
Incr Delay (d2), s/veh	2.4	0.0	79.5				0.0	0.7	41.5	10.2	1.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0				0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	5.1	0.0	15.7				0.0	3.6	29.2	3.2	0.4	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	37.7	0.0	118.7				0.0	12.1	63.4	50.8	1.2	0.0
LnGrp LOS	D	A	F				A	B	F	D	A	A
Approach Vol, veh/h		602						1236			944	
Approach Delay, s/veh		88.3						50.7			7.9	
Approach LOS		F						D			A	

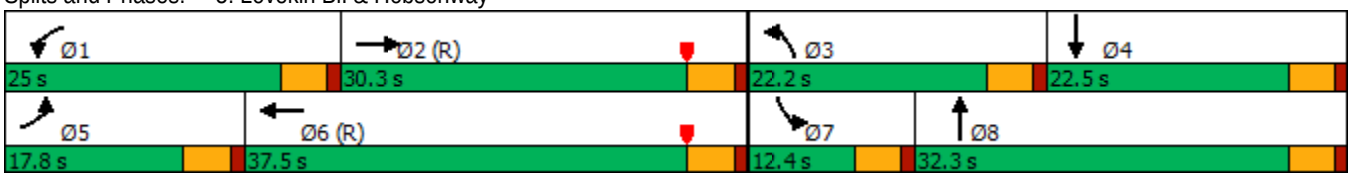
Timer - Assigned Phs	1	2		4		6
Phs Duration (G+Y+Rc), s	13.2	60.8		26.0		74.0
Change Period (Y+Rc), s	4.5	4.5		4.5		4.5
Max Green Setting (Gmax), s	11.5	53.5		21.5		69.5
Max Q Clear Time (g_c+I1), s	8.9	58.3		23.5		2.0
Green Ext Time (p_c), s	0.1	0.0		0.0		7.8

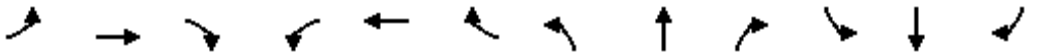
Intersection Summary	
HCM 6th Ctrl Delay	44.3
HCM 6th LOS	D

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	98	416	175	230	283	124	192	321	299	71	166	47
Future Volume (vph)	98	416	175	230	283	124	192	321	299	71	166	47
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	75		0	100		0	80		0	100		0
Storage Lanes	1		0	1		0	1		0	1		0
Taper Length (ft)	90			90			90			90		
Right Turn on Red			Yes			Yes			Yes			Yes
Link Speed (mph)		35			35			35			35	
Link Distance (ft)		2558			674			744			536	
Travel Time (s)		49.8			13.1			14.5			10.4	
Confl. Peds. (#/hr)	5		5	5		5	5		5	5		5
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Shared Lane Traffic (%)												
Turn Type	Prot	NA		Prot	NA		Prot	NA		Prot	NA	
Protected Phases	5	2		1	6		3	8		7	4	
Permitted Phases												
Detector Phase	5	2		1	6		3	8		7	4	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	9.5	22.5		9.5	22.5		9.5	22.5		9.5	22.5	
Total Split (s)	17.8	30.3		25.0	37.5		22.2	32.3		12.4	22.5	
Total Split (%)	17.8%	30.3%		25.0%	37.5%		22.2%	32.3%		12.4%	22.5%	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	1.0	1.0		1.0	1.0		1.0	1.0		1.0	1.0	
Lost Time Adjust (s)	0.0	0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	4.5	4.5		4.5	4.5		4.5	4.5		4.5	4.5	
Lead/Lag	Lead	Lag		Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes		Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max		None	Max		None	Max	

Intersection Summary	
Area Type:	Other
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 53 (53%), Referenced to phase 2:EBT and 6:WBT, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	

Splits and Phases: 5: Lovekin Bl. & Hobsonway





Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	98	416	175	230	283	124	192	321	299	71	166	47
Future Volume (veh/h)	98	416	175	230	283	124	192	321	299	71	166	47
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	120	507	213	280	345	151	234	391	365	87	202	57
Peak Hour Factor	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82	0.82
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	150	740	309	314	956	411	267	494	438	111	523	144
Arrive On Green	0.08	0.30	0.30	0.18	0.40	0.40	0.15	0.28	0.28	0.06	0.19	0.19
Sat Flow, veh/h	1781	2438	1019	1781	2417	1039	1781	1777	1576	1781	2749	755
Grp Volume(v), veh/h	120	369	351	280	252	244	234	391	365	87	129	130
Grp Sat Flow(s),veh/h/ln	1781	1777	1681	1781	1777	1679	1781	1777	1576	1781	1777	1727
Q Serve(g_s), s	6.6	18.2	18.4	15.4	10.0	10.3	12.9	20.4	21.8	4.8	6.3	6.6
Cycle Q Clear(g_c), s	6.6	18.2	18.4	15.4	10.0	10.3	12.9	20.4	21.8	4.8	6.3	6.6
Prop In Lane	1.00		0.61	1.00		0.62	1.00		1.00	1.00		0.44
Lane Grp Cap(c), veh/h	150	539	510	314	703	664	267	494	438	111	338	328
V/C Ratio(X)	0.80	0.68	0.69	0.89	0.36	0.37	0.87	0.79	0.83	0.78	0.38	0.40
Avail Cap(c_a), veh/h	237	539	510	365	703	664	315	494	438	141	338	328
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	45.0	30.6	30.7	40.3	21.3	21.4	41.6	33.4	33.9	46.2	35.4	35.5
Incr Delay (d2), s/veh	9.9	6.9	7.4	21.0	1.4	1.6	20.6	12.2	16.7	19.8	3.2	3.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	3.3	8.6	8.3	8.4	4.3	4.2	7.0	10.2	10.1	2.7	3.0	3.1
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	54.8	37.5	38.0	61.3	22.7	22.9	62.1	45.7	50.7	66.0	38.6	39.0
LnGrp LOS	D	D	D	E	C	C	E	D	D	E	D	D
Approach Vol, veh/h		840			776			990			346	
Approach Delay, s/veh		40.2			36.7			51.4			45.7	
Approach LOS		D			D			D			D	

Timer - Assigned Phs	1	2	3	4	5	6	7	8
Phs Duration (G+Y+Rc), s	22.1	34.9	19.5	23.5	12.9	44.1	10.7	32.3
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	20.5	25.8	17.7	18.0	13.3	33.0	7.9	27.8
Max Q Clear Time (g_c+I1), s	17.4	20.4	14.9	8.6	8.6	12.3	6.8	23.8
Green Ext Time (p_c), s	0.3	2.1	0.2	0.9	0.1	2.9	0.0	1.8

Intersection Summary	
HCM 6th Ctrl Delay	43.7
HCM 6th LOS	D



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Volume (vph)	372	62	51	297	149	122
Future Volume (vph)	372	62	51	297	149	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Link Speed (mph)	45			45	30	
Link Distance (ft)	2001			786	364	
Travel Time (s)	30.3			11.9	8.3	
Confl. Peds. (#/hr)		5	5		5	5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Shared Lane Traffic (%)						
Sign Control	Free			Free	Stop	

Intersection Summary	
Area Type:	Other
Control Type: Unsignalized	

Intersection	
Int Delay, s/veh	9.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	372	62	51	297	149	122
Future Vol, veh/h	372	62	51	297	149	122
Conflicting Peds, #/hr	0	5	5	0	5	5
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	404	67	55	323	162	133

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	476	0	881	448
Stage 1	-	-	-	-	443	-
Stage 2	-	-	-	-	438	-
Critical Hdwy	-	-	4.12	-	6.3	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.3	3.318
Pot Cap-1 Maneuver	-	-	1086	-	340	611
Stage 1	-	-	-	-	681	-
Stage 2	-	-	-	-	685	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1081	-	316	605
Mov Cap-2 Maneuver	-	-	-	-	316	-
Stage 1	-	-	-	-	678	-
Stage 2	-	-	-	-	640	-

Approach	EB	WB	NB
HCM Control Delay, s	0	1.2	34.7
HCM LOS			D

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	403	-	-	1081	-
HCM Lane V/C Ratio	0.731	-	-	0.051	-
HCM Control Delay (s)	34.7	-	-	8.5	0
HCM Lane LOS	D	-	-	A	A
HCM 95th %tile Q(veh)	5.7	-	-	0.2	-

EDELWEISS SUSTAINABLE FARMS

DRAFT EIR

SCH# 2021120031

TECHNICAL APPENDICES

Appendix M.2

Vehicle Miles Traveled (VMT) Analysis

May 2022

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February 17, 2022

Mr. Patrick Kelly
Edelweiss Sustainable Farms, LLC
6086 Yucca Mesa Rd.
Yucca Valley, CA 92284

SUBJECT: EDELWEISS SUSTAINABLE FARMS PROJECT VEHICLE MILES TRAVELED (VMT) ANALYSIS

Dear Mr. Patrick Kelly:

The following Vehicle Miles Traveled (VMT) Analysis has been prepared for the proposed Edelweiss Sustainable Farms Project (**Project**), which is located south of Hobsonway and east of Defrain Boulevard in the City of Blythe.

PROJECT OVERVIEW

The Project proposes to construct 12 buildings with a total of approximately 533,812 square feet (sf) for processing, cultivation, and office uses. 509,103 sf will be utilized for processing and cultivation and 24,709 sf for administration/office building uses.

BACKGROUND

Changes to California Environmental Quality Act (CEQA) Guidelines were adopted in December 2018, which requires all lead agencies to adopt VMT as a replacement for automobile delay-based level of service (LOS) as the new measure for identifying transportation impacts for land use projects. This statewide mandate went into effect July 1, 2020. To aid in this transition, the Governor's Office of Planning and Research (OPR) released a Technical Advisory on Evaluating Transportation Impacts in CEQA (December of 2018) (**Technical Advisory**). (1) Based on OPR's Technical Advisory, the County of Riverside has recently adopted their Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled (December of 2020) (**County Guidelines**) (2). The adopted County Guidelines have been utilized to prepare this VMT analysis.

PROJECT SCREENING

Consistent with County Guidelines, land use projects evaluate applicable VMT screening criteria based on their location, size and land use type to determine if a presumption of a less than significant transportation impact can be made without the need of full project level VMT analysis. County Guidelines list several different screening criteria, including the following:

- Small Project/Low GHG Emissions Based Screening
- High Quality Transit Areas (HQTA) Screening
- Map-Based Screening

A land use project need only meet one of the above screening criteria to result in a less than significant impact.

SMALL PROJECT/LOW GHG EMISSIONS BASED SCREENING

The County Guidelines identify that projects that generate fewer than 110 daily vehicle trips are presumed to have a less than significant impact absent substantial evidence to the contrary. Total daily vehicle trips generated by an industrial warehouse of approximately 534,000 square feet would easily exceed the County's 110 daily vehicle trip threshold.

County Guidelines also identify those projects forecasted to generate greenhouse gas (GHG) emissions below 3,000 Metric Tons of Carbon Dioxide Equivalent ($MTCO_2e$) per year are also assumed to cause a less than significant VMT impact.[1] County Guidelines identifies that industrial warehouse buildings (without refrigeration) below 208,000 square feet in total building size are expected to generate fewer than 3,000 $MTCO_2e$ per year and would therefore be considered less than significant.

Small Project/Low GHG Emissions based screening criteria is not met.

HIGH QUALITY TRANSIT AREAS (HQTA) SCREENING

Projects located within a Transit Priority Area (TPA) (i.e., within ½ mile of an existing "major transit stop"[2] or an existing stop along a "high-quality transit corridor"[3]) may be presumed to have a less than significant impact absent substantial evidence to the contrary. However, the presumption may not be appropriate if a project:

- Has a Floor Area Ratio (FAR) of less than 0.75;
- Includes more parking for use by residents, customers, or employees of the project than required by the jurisdiction (if the jurisdiction requires the project to supply parking);
- Is inconsistent with the applicable Sustainable Communities Strategy (as determined by the lead agency, with input from the Metropolitan Planning Organization); or
- Replaces affordable residential units with a smaller number of moderate- or high-income residential units.

[1] County Guidelines; Page 19.
[2] Pub. Resources Code, § 21064.3 ("'Major transit stop' means a site containing an existing rail transit station, a ferry terminal served by either a bus or rail transit service, or the intersection of two or more major bus routes with a frequency of service interval of 15 minutes or less during the morning and afternoon peak commute periods.").
[3] Pub. Resources Code, § 21155 ("For purposes of this section, a high-quality transit corridor means a corridor with fixed route bus service with service intervals no longer than 15 minutes during peak commute hours.").

The Project is not located within ½ mile of an existing major transit stop, or along a high-quality transit corridor.

HQTA screening criteria is not met.

MAP-BASED SCREENING

The Technical Advisory and County Guidelines note that "residential and office projects that locate in areas with low VMT, and that incorporate similar features (i.e., density, mix of uses, transit accessibility), will tend to exhibit similarly low VMT."[4] County Guidelines also state that the use of map-based screening for low VMT generating areas is also applicable for other employment uses such as the Project's industrial development. Urban Crossroads has obtained a VMT screening map from County staff that identifies areas of low VMT. The map utilizes the sub-regional Riverside Transportation Analysis Model (RIVTAM) to measure baseline VMT performance for individual TAZ's and compares them to the applicable impact threshold (e.g., VMT per employee for office or industrial land uses and VMT per capita for residential land uses). As shown in Attachment A, the Project resides in TAZ 4922, which is shown to generate 37.4 VMT per employee. The County threshold is 14.24 VMT per employee. As such, the Project's TAZ would not qualify for low VMT area/map-based screening.

Map-Based screening criteria is not met.

PROJECT GENERATED VMT

County Guidelines state that project's that do not meet one or more of the VMT screening criteria described previously should prepare a project level VMT analysis. RIVTAM is a useful tool to estimate VMT as it considers interaction between different land uses based on socio-economic data such as population, households, and employment. RIVTAM is a travel forecasting model that represents a sub-area (Riverside County) of the Southern California Association of Governments (SCAG) regional traffic model. RIVTAM was designed to provide a greater level of detail and sensitivity in the Riverside County area as compared to the regional SCAG model. County Guidelines identifies RIVTAM as the appropriate tool for conducting VMT modeling for land use projects within the County of Riverside.

Project generated VMT has been calculated using the most current version of RIVTAM. Adjustments in socio-economic data (SED) (i.e., estimated number of Project employees) were made to the TAZ in which the Project resides. An estimate of 1 employee per thousand square feet was determined in coordination with the Client. The TAZ in which the Project resides has been utilized to isolate vehicle trips to/from the Project. Table 1 summarizes the employment estimates for the Project.

[4] Page 12 of the Technical Advisory

TABLE 1: EMPLOYMENT DENSITY FACTORS

Land Use	Quantity	Employment Factor[5]	**Project Employees**
Light Industrial	534,000 SF	1 emp/1,000 SF	534

Adjustments to employment for the Project's TAZ were made to the RIVTAM base year model. Project-generated home-based work VMT was then calculated following the VMT calculation procedures identified in Appendix E of the County Guidelines. The home-based work VMT value is then normalized by dividing by the number of Project employees. As shown in Table 2, the Project generated VMT per employee is 26.47.

TABLE 2: PROJECT VMT PER EMPLOYEE

	Project
Home-based Work VMT	14,136
Employment	534
VMT per Employee	26.47

PROJECT GENERATED VMT ASSESSMENT

The Project results in a significant project generated VMT impact if the base model year project generated VMT per employee exceeds the existing City of Blythe VMT per employee. Table 3 provides a comparison of the Project generated VMT per employee as compared to the City total.

TABLE 3: PROJECT VMT PER EMPLOYEE COMPARISON

	Baseline
City Threshold	33.22
Project VMT per Employee	26.47
Percent Change	-20%
Potentially Significant?	No

As shown in Table 3, the Project generated VMT per employee values would be less than the City's average by 20%. The transportation impact based on the assessment of Project generated VMT as compared to the City average is not potentially significant.

POTENTIAL VMT REDUCTION STRATEGIES

The following VMT reduction strategies may be considered for this Project:

[5] County of Riverside General Plan; Appendix E-2, Table E-5

- Designated Part-time Employee Transportation Coordinator (ETC)
    - Role of ETC is to provide education and point of contact for commute related questions and commuter benefits.
- Bicycle End-Trip Facilities
    - On-site secure bike parking, storage lockers, showers
- Carpool and Vanpool Ride-Matching Services
    - Waze Carpool and other carpool/vanpool ride-matching services
- Preferential Carpool Parking
    - Provide designated carpool parking spaces that encourage the use of carpooling instead of single occupancy driving.
- Compressed Work Weeks
    - Provide for compressed work weeks such as a 4/10 work schedule reducing the need for commuting by one day per week.

CONCLUSION

Although the Project was found to not be eligible for project-level VMT screening based on the County's adopted screening thresholds, a rigorous assessment of Project generated VMT per employee was found to be less than the City average resulting in a less than significant VMT impact.

If you have any questions, please contact us at (949) 375-2435 for John or (714) 585-0574 for Marlie.

Respectfully submitted,

URBAN CROSSROADS, INC.

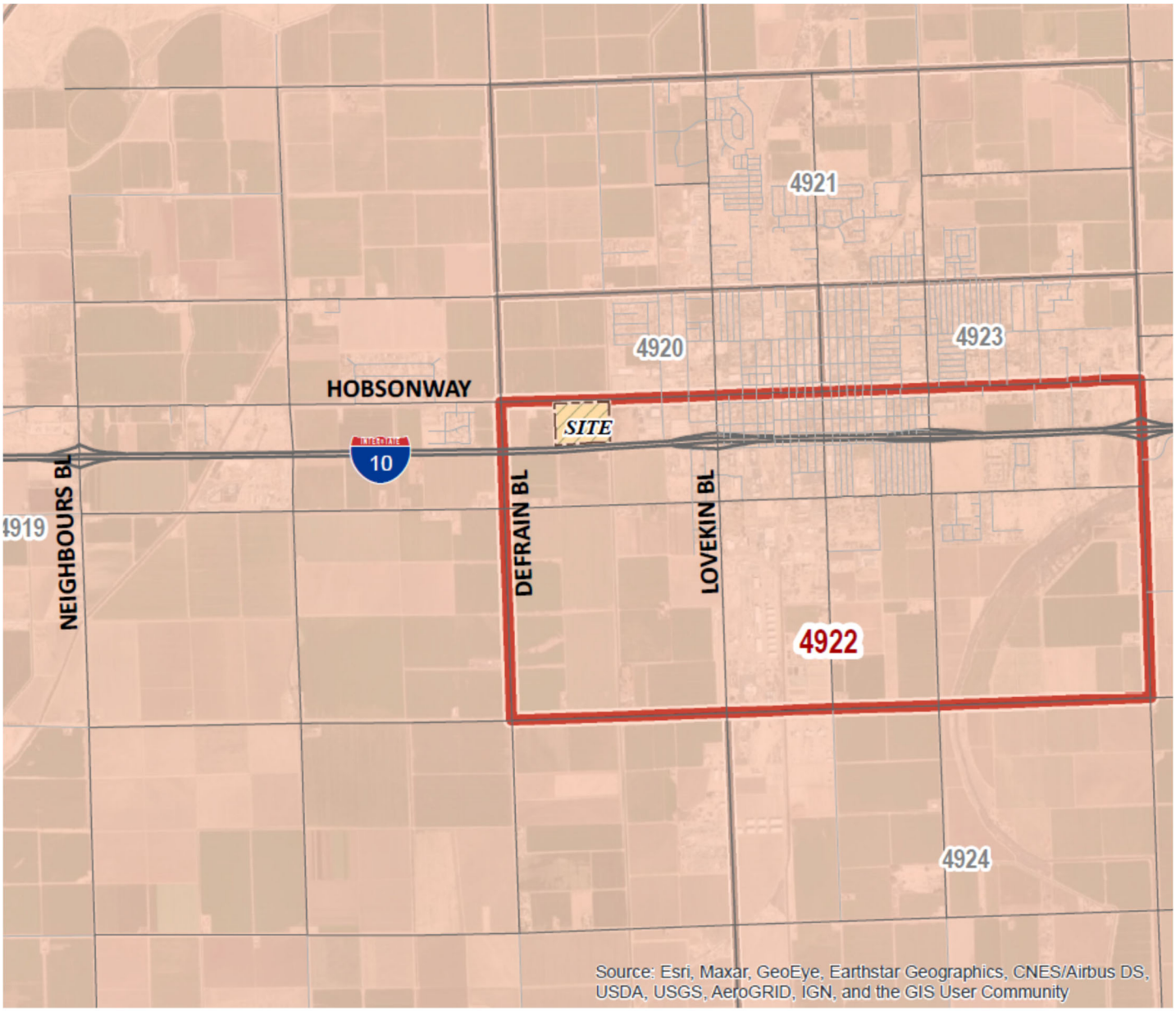
John Kain, AICP
Principal

Marlie Whiteman, PE
Senior Associate

REFERENCES

1. **Office of Planning and Research.** *Technical Advisory on Evaluating Transportation Impacts in CEQA.* State of California : s.n., December 2018.
2. **County of Riverside.** *Transportation Analysis Guidelines for Level of Service Vehicle Miles Traveled.* County of Riverside : s.n., December 2020.

ATTACHMENT A
MAP-BASED VMT SCREENING RESULTS



LEGEND

- HOBSONWAY CANNABIS PROJECT
- RIVTAM TAZ ENCOMPASSING HOBSONWAY CANNABIS PROJECT
- RIVTAM TAZ

VMT

- MORE THAN 15% OVER THE COUNTY AVERAGE

N