INITIAL STUDY

FOR THE

ADELANTO PROJECT FOR MEDICAL CANNABIS CULTIVATION DEVELOPMENT

Prepared for:

City of Adelanto
11600 Air Expressway
Adelanto, California 92301

Prepared by:

Tom Dodson & Associates
P.O. Box 2307
San Bernardino, California 92406
(909) 882-3612

May 2020

TABLE OF CONTENTS

Introduction 1

Environmental Factors Potentially Affected 4

Determination 5

Evaluation of Environmental Impacts 6
I. Aesthetics 8
II. Agricultural and Forestry Resources 10
III. Air Quality 12
IV. Biological Resources 22
V. Cultural Resources 27
VI. Energy 29
VII. Geology and Soils 31
VIII. Greenhouse Gas Emissions 34
IX. Hazards and Hazardous Materials 37
X. Hydrology and Water Quality 41
XI. Land Use and Planning 45
XII. Mineral Resources 46
XIII. Noise 46
XIV. Population and Housing 50
XV. Public Services 51
XVI. Recreation 53
XVII. Transportation / Traffic 54
XVIII. Tribal Cultural Resources 57
XIX. Utilities and Service Systems 59
XX. Wildfire 62
XXI. Mandatory Findings of Significance 63

Summary of Mitigation Measures 65

References 70

APPENDICES

Appendix 1 – Air Quality / GHG Analyses
Appendix 2 – Biological Resources Assessment & Jurisdictional Delineation
Appendix 3 – Historical / Archaeological Resources Survey Report
Appendix 4 – Soils Survey Map

FIGURES

Figure 1 Regional Location
Figure 2 Site Location
Figure 3 Site Plan
Figure 4 Interior Site Plan

Figure II-1 Farmland Map

Figure IV-1 Soils Map

Figure VII-1 Alquist Priolo Fault Zones
Figure VII-2 San Bernardino County Land Use Plan General Plan Geologic Hazard Overlays

Figure IX-1 GeoTracker, page 1
Figure IX-2 GeoTracker, page 2
Figure IX-3 GeoTracker, page 3
Figure IX-4 Fire Hazard Severity Zones in State Responsibility Area
Figure IX-5 Draft Fire Hazard Severity Zones in Local Responsibility Area

Figure X-1 San Bernardino County Land Use Plan General Plan Hazard Overlays
Figure X-2 FEMA Map

Figure XI-1 City of Adelanto General Plan Land Use and Zoning Map

Figure XII-1 Land Use Compatibility Guidelines Related to Noise Exposure
Figure XII-2 Southern California Logistics Airport Long-Range Noise Contours

TABLES

Table III-1 Ambient Air Quality Standards 13
Table III-3 Health Effects of Major Criteria Pollutants 15
Table III-3 Project Area Air Quality Monitoring Summary (2016-2018) 17
Table III-4 Construction Activity Equipment and Durations 19
Table III-5 Daily Construction Emissions 19
Table III-6 Annual Construction Emissions 19
Table III-7 Proposed Uses Daily Operational Impacts (2022) (lbs/day) 20
Table III-8 Proposed Uses Daily Operational Impacts (2022) (tons/year) 21

Table VIII-1 Construction Emissions 35
Table VII-2 Operational Emissions 36

Table XII-1 Noise Levels of Construction Equipment at 25, 50 and 100 feet from the Source 48

ENVIRONMENTAL CHECKLIST FORM

1. Project Title: Adelanto Project for Medical Cannabis Cultivation Development

2. Lead Agency Name: City of Adelanto
   Address: 11600 Air Expressway, Adelanto, CA 92301

3. Contact Person: James Hirsch
   Phone Number: 760-246-2300, ext. 11142

4. Project Location: The proposed project is located in the City of Adelanto, San Bernardino County, at the southwest corner of the intersection of Auburn Avenue and Pearmain Street, just east of Highway 395. The geographic coordinates of the proposed project are 34.595524, -117.402419 and the proposed project is located within the Victorville, CA USGS Topo 7.5-minute topographic map, within Section 21, Township 6 South, Range 8 East. See Figures 1 and 2 for regional and site locations.

5. Project Sponsor: Bassam Hussain
   Shayma Kadhim
   E-Mail: canada_shima@hotmail.com
   Address: 333 E. Arrow Hwy, Unit 873, Upland, CA 92785

6. General Plan Designation: Airport Development District

7. Zoning: Airport Development District

8. Project Description:

Project Description

The City of Adelanto is located in the High Desert region of San Bernardino County just north of the San Gabriel Mountains. The developer, Bassam Hussain and Shayma Kadhim, propose the development of a cannabis cultivation facility on an 8.34-acre site in the City of Adelanto, San Bernardino County, California. The project site is comprised of Assessor Parcel Number (APN) 0459-053-53-0-000. As shown on the site plan (Figure 3), the Applicant, proposes eight buildings, 20,000 square feet (SF) each in size, designed to facilitate the cultivation and processing of medicinal marijuana. The City of Adelanto Code Section Chapter 17.80: Cannabis Special Use (d) states that, “Indoor Medical Cannabis Cultivation Conditionally Permitted. Indoor adult- use and medical cannabis cultivation is conditionally permitted in the City only as expressly specified in this Section.” An evaluation of the proposed project indicates that it meets the criteria referenced in the code, and therefore, the application for the cannabis cultivation facility requires the approval of a Conditional Use Permit (CUP) in the Airport Development District, the zone within which the project is located. The applicant has submitted an application for approval of a CUP entitlement by the City.

At present, the site is vacant, and contains scattered native vegetation. According to the site plan (Figure 3), the project will construct eight industrial buildings, utilizing a phased approach—two buildings will be constructed during each phase. The construction sequence for the first building will build the first half of the building approximately 10,000 square feet then the second half of the building will be built next. Each individual building will total 20,000 SF in size, for a total

building square footage of 160,000 SF (Site Plan, Figure 3). The site coverage will be 203,228 SF, and each building will be 26-feet in height. This equates to approximately 58.9% building coverage on the site. Each building will house a small office building, and will facilitate the growing, cultivation, and manufacturing of medicinal cannabis. Each structure will include three entrances: one facing north, one facing east, and another facing south. Two of the entrances will be situated at the center of each building with a long hallway providing access to each entrance. The structure will also include overhead doors.

Onsite parking will be provided to the north of the proposed buildings, and will be accessible from Auburn Avenue. The project will provide a total of 110 parking spaces, which is greater than the 103 parking spaces required by the City for the project as proposed. The parking provided includes 4 handicapped parking spaces, and 6 12' x 45' loading spaces. The loading spaces are located at the northwestern border of the site, while the majority of the handicapped parking spaces are located at the entrance of the two buildings that will be constructed as part of Phase I.

The entirety of the site will be fenced with concrete blocks measuring 8 feet tall for security purposes. Access to the site will be through one throughway on Auburn Avenue. All incoming and outgoing employee vehicles and other vehicular traffic associated with supply and materials deliveries, green and solid waste collection, and product shipping will enter and exit from this entryway.

The project will install landscaping throughout the site in the amount of 1.68 acres, or approximately 20% of the total acreage of the site. As shown on the site plan, provided as Figure 3, onsite circulation will be provided by 20-foot through ways adjacent to each of the eight proposed structures, while the distance between each structure will be 41-feet.

Each Cultivation Building will include bloom canopy, vegetation canopy, pre-vegetation canopy, drying, trimming, viticulture areas, office and break room areas, feed room, loading and storage areas that are designed to accommodate the various phases of cannabis cultivation and processing operations. The interior site plan is shown on Figure 4. Cultivation is predicted to consume 537,500 kWh/year of electricity which will be provided with use of a natural gas generator that is expected to consume 7.34×10^9 British thermal unit (btu)/year. A trash enclosure that will serve the project operations will be located adjacent to the parking area towards the northeast corner of the site.

The project includes a retention basin that will collect runoff from the project site, which will be located directly on the northeastern boundary of the site. Odors on site will be handled utilizing commercial odor controls with carbon filters, which utilize activated charcoal, carbon filters, and an extractor fan for flow of air.

Once in operation, it is anticipated that the Adelanto Project for Medical Cannabis Cultivation Development will employ a maximum of 5-10 persons, about half of which will be full-time personnel, while the remaining employees will be part-time.

The proposed project includes off-site improvements including the development of half of the adjacent streets on three sides of the project: the proposed Auburn Avenue to the north, Barcelona Avenue to the south, and Pearmain Avenue to the east. Auburn Avenue, Pearmain Avenue and Barcelona Avenue are established roadways; these roadways are currently not paved. As such, the project would pave half of these three segments of roadway. Each of these segments of roadway would be approximately 700 feet in length, and about 10 feet in width. The off-site improvements will also be phased to mirror the onsite phasing.

Additionally, the project requires the extension of a water line and a sewer line to the project from the intersection of Jonathan Street and Auburn Avenue in the amount of approximately 1,000 lineal feet (LF); both the proposed water line and proposed sewer line will be 8 inches in diameter.

Project Phasing

The proposed project will become operational in phases; specifically, the project will be constructed in four phases, each phase will include the installation of two 20,000 SF cannabis cultivation buildings and associated internal circulation infrastructure. As such, once the site has been graded, the developer will install basic infrastructure within the site—connections to utilities, a portion of the proposed parking area, sidewalks, security fencing, etc., and two of the eight 20,000 SF cannabis cultivation buildings will be constructed. It is anticipated that each phase of the project will require 6-9 months to be constructed, and that each new phase will occur in two year increments. Construction of Phase 1 is anticipated to occur by the fourth quarter of 2020, while construction of the final phase—Phase 4—is anticipated to occur by approximately 2026, with Phases 2 and 3 occurring in 2022 and 2024, respectively. Phases 1 and 2 include the installation of parking fronting Auburn Avenue, as well as installation of onsite circulation infrastructure, while Phases 3 and 4 will only require onsite circulation infrastructure. Phase 1 also includes the development of the retention pond at the northwest border of the project site fronting Auburn Avenue.

Construction Scenario

Due to the extent of entitlements required for a development of this type, it is anticipated that entitlements, construction documents, and permits would be obtained by the mid-to-late-2020. Construction of the first phase of the proposed Cannabis Cultivation Facility is anticipated to take approximately 6 to 9 months, with an anticipated start of construction date in about the fourth quarter of 2020, and an anticipated operational date of about the third quarter of 2021. It is anticipated that the development will require approximately 2 to 3 years of construction to complete the entire Cannabis Cultivation Facility, and that the four phases of the project will be completed by about 2026. The project site contains disturbed loose gravely soil; development of the site would require site preparation (i.e., grading and excavation), and ultimately paving, and construction of the eight proposed buildings in phases, as shown on the site plan (Figure 3). The project is anticipated to require minimal cut and fill with any cut being reused to balance of the site through grading. The retention pond will require excavation below ground surface of approximately 5 to 10 feet. Delivery of construction supplies and removal of any excavated materials, if necessary, will be accomplished using trucks during normal working hours, with a maximum of about 50 round trips per day. Grading will be by traditional mechanized grading and compaction equipment. Equipment utilized will be traditional site development equipment of front end graders, vibratory compactors, petroleum powered fork lifts, and various hand tools traditional to commercial construction. The maximum number of construction employees required to complete the proposed development is about 35 persons per phase. The types of structures that will be developed are metal buildings. The areas for cannabis growth will have a polycarbonate rigid panel roof and the areas for offices will be standing seam metal roof.

9. Surrounding land uses and setting: (Briefly describe the project's surroundings)

The project site is located in a heavy industrial area. The area surrounding the project has one Cannabis Farm that is in the process of being developed at the southwest corner of 48th Avenue and Harrison Street. The land uses surrounding the project area are as follows:

- North: Public Utilities
- West: Airport Development District (ADD)
- South: Airport Development District (ADD)
- East: Airport Development District (ADD)

10. Other agencies whose approval is required (e.g., permits, financing approval, or participation agreement):

    - State Water Resource Control Board
    - Mojave Desert Air Quality Management District
    - Lahonton Basin Regional Water Quality Control Board
    - San Bernardino County Fire Department

11. Have California Native American tribes traditionally and cultural affiliated with the project area requested consultation pursuant to Public Resources Code section 21080.3.1? If so, has consultation begun? Yes. The project site is located within the City of Adelanto, which has been contacted pursuant to Public Resources Code section 21080.3.1 by the following California Native American tribes traditionally and cultural affiliated with the City of Adelanto: Torres Martinez Desert Cahuilla Indians, San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The City contacted these tribes to initiate the AB-52 process on March 3, 2020 to notify the tribes of the proposed project through mailed letters. During the 30-day consultation period that concluded in early April 2020, only the San Manuel Band of Mission Indians responded with a request for inclusion several mitigation measures to be included in this Initial Study. These mitigation measures have been included as part of this document under Cultural Resources and Tribal Cultural Resources. AB-52 concluded with no other tribal input.

    Note: Conducting consultation early in the CEQA process allows tribal governments, lead agencies, and project proponents to discuss the level of environmental review, identify and address potential adverse impacts to tribal cultural resources, and reduce the potential for delay and conflict in the environmental review process. (See Public Resources Code section 21083.3.2.) Information may also be available from the California Native American Heritage Commission's Sacred Lands File per Public Resources Code section 5097.96 and the California Historical Resources Information System administered by the California Office of Historic Preservation. Please also note that Public Resources Code section 21082.3(c) contains provisions specific to confidentiality.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☒ Biological Resources	☒ Cultural Resources	☒ Energy
☒ Geology / Soils	☐ Greenhouse Gas Emissions	☒ Hazards & Hazardous 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 the Lead Agency)

On the basis of this initial evaluation, the following finding is made:

☐	The proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
☒	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.
☐	The proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
☐	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.
☐	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, nothing further is required.

Prepared by — Date

Lead Agency (signature) CONTRACT PLANNER — 5/8/20 Date

EVALUATION OF ENVIRONMENTAL IMPACTS:

1) A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).

2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.

3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.

4) "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analyses," as described in (5) below, may be cross-referenced).

5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:

   a) Earlier Analysis Used. Identify and state where they are available for review.
   b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
   c) Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.

9) The explanation of each issue should identify:

   a) the significance criteria or threshold, if any, used to evaluate each question; and
   b) the mitigation measure identified, if any, to reduce the impact to less than significance.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
I. AESTHETICS: Except as provided in Public Resources Code Section 21099, 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 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?	☐	☒	☐	☐

SUBSTANTIATION

a. *Less Than Significant Impact* – Adverse impacts to scenic vistas can occur in one of two ways. First, an area itself may contain existing scenic vistas that would be altered by new development. A review of the project area determined that there are no scenic vistas located internally within the area proposed for the development of the Cannabis Cultivation Project. The project site is located in an area that is sparsely developed, with a wastewater treatment plant to the north of the project site, and no other surrounding development in the immediate vicinity of the project. The project is located about two-thirds of a mile from the Southern California Logistics Airport (SCLA), and the nearest residences are more than 1,500 feet south of the project site. Therefore, the development of the Adelanto Project for Cannabis Cultivation Development is not expected to impact any important scenic vistas within the project area. A scenic vista impact can also occur when a scenic vista can be viewed from the project area or immediate vicinity and a proposed development may interfere with the view to a scenic vista. The City of Adelanto is located in the High Desert, north of the San Bernardino and San Gabriel Mountains and east of the Shadow Mountains. The Adelanto North 2035 Comprehensively Sustainable Plan states the following in regards to scenic corridors and viewsheds:

Scenic Corridors and Viewsheds. The Adelanto North 2035 Planning Area is comprised of a vast amount of vacant/open space land that has scenic value. These resources include the beauty of the desert landscape and the views of the Shadow Mountains along the western boundary of the Planning Area. Sensitive design and placement of new development will ensure that these corridors and viewsheds remain as an important aesthetic resource for future residents of the City as well as travelers passing through.

The proposed development would limit views in the area immediately surrounding the project site, due to the 26-foot height of the eight proposed buildings. Given the project's location—more than 12 miles southeast of the Shadow Mountains, and more than 15 miles north of the San Gabriel Mountains—views to the mountains from the project area are limited. Additionally, development of the project would be consistent with the type of development planned for the Airport Development District. Therefore, development of the proposed project has a less than significant potential to have a substantial adverse effect on a scenic vista.

b. *Less Than Significant With Mitigation Incorporated* – The project site is vacant, and contains native vegetation, including Joshua trees, which are protected by Title 8, Division 9 of the San Bernardino County Code, which is enforced by the City of Adelanto. The removal and/or relocation of Joshua trees is discussed further under Section IV Biological Resources, issues "B" and "E." Mitigation Measure **BIO-5** addresses the relocation and/or removal of Joshua trees and will prevent significant impacts from occurring to these resources. No rock outcroppings, or other scenic features existing on site. According to Caltrans, the proposed project is not located within a state scenic highway and the City of Adelanto does not identify any locally important scenic roadways. Therefore, the proposed project cannot affect any scenic resources within a state scenic highway corridor. Based on the site condition and immediate surroundings, the project site itself does not contain any significant scenic resources beyond Joshua trees that would require mitigation or would otherwise be significant. Therefore, with the implementation of **BIO-5**, impacts to a scenic resource would be less than significant.

c. *Less Than Significant Impact* – The proposed project is in a relatively non-urbanized area west of the SCLA with no development in the immediate vicinity of the project beyond a sewage treatment plant to the north. The proposed development would limit public views in the area immediately surrounding the project site, due to the 26-foot height of the eight proposed buildings. However, the underlying land use and zoning classification indicate that this area is planned for industrial type uses such as the proposed Cannabis Cultivation Development, and as such the visual impacts of anticipated development is consistent with the General Plan. Furthermore, uses within a half mile of the project include several other industrial uses such as Dr. Pepper Snapple and Volkswagen to the east. Due to the project's location outside of major throughways in the City, public views to this site are limited, and as stated under issue I(a) above, the project is located more than 12 miles southeast of the Shadow Mountains, and more than 15 miles north of the San Gabriel Mountains, and as such public views to these vistas in the area surrounding the project are limited. Therefore, development of the proposed project has a less than significant potential to substantially degrade the existing visual character or quality of public views of the site and its surroundings.

d. *Less Than Significant With Mitigation Incorporated* – Implementation of the proposed project will create new sources of light during the operational phases of the project. Light and glare from interior and exterior building lighting, safety and security lighting, and vehicular traffic accessing the site will occur once the site is in operation. The nearest residences are more than 1,500 feet south of the project site; it is not anticipated that, at this distance, light and glare impacts from the project would reach these nearby residences. However, the proposed project is located about 0.65 miles west of the SCLA, and should the project be developed with any reflective material, the project may have the potential to interfere with air traffic. Thus, mitigation to address light and glare impacts related to air traffic shall be implemented:

AES-1 ***A facilities lighting plan shall be prepared and shall demonstrate that glare from operating and safety night lights that may create light and glare affecting air traffic are sufficiently shielded and directed. Furthermore, all building materials shall be selected to minimize glare potential, or painted or otherwise treated to minimize glare potential from aircraft overflights. This plan shall be implemented by the Applicant with the approval of the City to minimize light or glare intrusion onto adjacent properties.***

Furthermore, the new lighting is required to be consistent with the lighting policies of the City of Adelanto zoning code standards by directing all lighting downwards. With implementation of the above measure and compliance with the City of Adelanto municipal code, potential light and glare can be controlled to a less than significant impact level.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
II. 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 the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
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 (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The project site is currently vacant, and relatively flat and undisturbed. The project site is located within the City of Adelanto's Airport Development District land use designation, and the Airport Development District zoning classification. The City of Adelanto does not contain a significant amount of land designated as Prime Farmland, Unique Farmland or Farmland of Statewide Importance. According to the California Important Farmland Finder map (Figure II-1), the project site is located within land that is designated as Grazing Land, which is considered to be land on which the existing vegetation is suited to grazing of livestock. This designation is not related to Prime Farmland, Unique Farmland or Farmland of Statewide Importance. Furthermore, the proposed project site has been vacant with no activity for over 60 years. Construction and operation of the proposed Adelanto Project for Medical Cannabis Cultivation Development, which will ultimately function as a commercial crop cultivation facility, will be confined to the project site, and

therefore will not convert farmland of any importance to non-agricultural use. No impacts are anticipated and no mitigation is required.

b. *No Impact* – As stated under issue II(a) above, the proposed project site is not designated for agricultural use by the Adelanto North 2035 Sustainability Plan. Furthermore, the adjacent uses are not designated for agricultural uses. The activities associated with the proposed project will be confined to the project site; therefore, no potential exists for a conflict between the proposed project and agricultural zoning or Williamson Act contracts within the project area. No mitigation is required.

c. *No Impact* – The project site is not located within forest land, timberland or timberland zoned for Timberland Production. Therefore, the proposed project will not conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g)). No impacts are anticipated and no mitigation is required.

d. *No Impact* – The project site is not located within forest land and has no commercial trees on the property; therefore, the project will not result in the loss of forest land or conversion of forest land to non-forest production use. No impacts are anticipated and no mitigation is required.

e. *No Impact* – Implementation of the proposed project will not involve other changes in the existing environment, which, due to their location or nature, could result in conversion of valuable farmland to non-agricultural use or forest to non-forest uses. No forest or agricultural resources or uses occur within the general vicinity of the proposed project site, and as such no agricultural uses would be impacted by the development or operation of the Adelanto Project for Medical Cannabis Cultivation Development as the development of a project of this type is a form of agricultural use. Therefore, no adverse impacts to agricultural, forest or timberland resources will result from project implementation and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
III. AIR QUALITY: Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
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?	☐	☐	☒	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the *Air Quality and GHG Impact Analyses, Adelanto Project for Medical Cannabis Cultivation Development, Adelanto, California* prepared by Giroux and Associates dated April 20, 2020 (Appendix 1).

Background

Climate
The climate of the Victor Valley, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville and surrounding high desert communities. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El Cajon Pass into the upper desert to the northeast of the heavily developed portions of the Los Angeles Basin. This daily airflow brings polluted air into the area late in the afternoon from late spring to early fall. This transport pattern creates both unhealthful air quality and also destroys the scenic vistas of the mountains surrounding the Victor Valley.

Air Quality Standards
Monitored air quality is evaluated and 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 III-1. Because the State of California had established Ambient Air Quality Standards (AAQS) several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table III-1. Sources and health effects of various pollutants are shown in Table III-2.

Of the standards shown in Table III-1, those for ozone (O3), and particulate matter (PM-10) are exceeded at times in the Mojave Desert Air Basin (MDAB). They are called “non-attainment pollutants.” Because of the variations in both the regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

Table III-1
AMBIENT AIR QUALITY STANDARDS

Pollutant	Average Time	California Standards [1]		National Standards [2]		
		Concentration [3]	Method [4]	Primary [3,5]	Secondary [3,6]	Method [7]
Ozone (O3)[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	15.0 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 ppm (10 mg/m^3)		9 ppm (10 mg/m^3)	–	
	8 Hour (Lake Tahoe)	6 ppm (7 mg/m^3)		–	–	
Nitrogen Dioxide (NO2)[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 (SO2)[11]	1 Hour	0.25 ppm (655 µg/m^3)	Ultraviolet Fluorescence	75 ppb (196 µg/m^3)	–	Ultraviolet Flourescense; Spectrophotometry (Paraosaniline 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 8[12,13]	30-Day Average	1.5 µg/m^3	Atomic Absorption	–	–	–
	Calendar Quarter	–		1.5 µg/m^3 (for certain areas)[12]	Same as Primary Standard	High Volume Sampler and Atomic Absorption
	Rolling 3-Month Avg	–		0.15 µg/m^3		
Visibility Reducing Particles[14]	8 Hour	See footnote 14	Beta Attenuation and Transmittance through Filter Tape	**No Federal 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			

Footnotes

1 California standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1 and 24 hour), nitrogen dioxide, suspended 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 averages or annual arithmetic mean) are not to be exceeded more than once a year. The ozone standard is attained when the fourth highest eight hour concentration 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 µg/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 3 years, are equal to or less than the standard. Contact U.S. EPA for further clarification and current federal 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 procedure 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 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 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 PM2.5 primary standard was lowered from 15 µg/m^3 to 12.0 µg/m^3. The existing national 24-hour PM2.5 standards (primarily and secondary) were retained at 35 µg/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM10 standards (primarily and secondary) of 150 µg/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 SO2 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 SO2 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 j.tg/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.

Table III-2
HEALTH EFFECTS OF MAJOR CRITERIA POLLUTANTS

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Fine Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

Baseline Air Quality

Monitoring of air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Existing levels of criteria air pollutants in the project area can generally be inferred from measurements conducted at the Victorville Station at 14306 Park Avenue. Although the Victorville Station monitors most of the spectrum of pollutants, data for CO is no longer monitored in the Mojave Desert. Table 3 summarizes the last three years of monitoring data from the available data at for the Victorville monitoring station. From these data one can infer that baseline air quality levels near the project site are occasionally unhealthful, but that such violations of clean air standards usually affect only those people most sensitive to air pollution exposure.

a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded approximately 7 percent of all days in the last three years while the 1-hour state standard has been exceeded less than one percent of all days. The 8-hour federal standard has been exceeded approximately 5 percent of all days in the past three years. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade

b. Respirable dust (PM-10) levels often exceed the state standard of 50 $\mu g/m^3$ but the less stringent federal PM-10 standard of 150 $\mu g/m^3$ is violated with much less frequency. However, given the high Max. 24-Hour concentrations it is clear that PM-10 is still of concern.

c. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There has only been one measured violation in the last three years.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Table III-3
PROJECT AREA AIR QUALITY MONITORING SUMMARY – 2016-2018
(DAYS STANDARDS WERE EXCEEDED AND MAXIMUM OBSERVED LEVELS)

Pollutant/Standard	2016	2017	2018
Ozone			
1-Hour > 0.09 ppm (S)	4	0	5
8-Hour > 0.07 ppm (S)	33	17	55
8- Hour > 0.075 ppm (F)	18	7	27
Max. 1-Hour Conc. (ppm)	0.100	0.088	0.107
Max. 8-Hour Conc. (ppm)	0.086	0.082	0.097
Nitrogen Dioxide			
1-Hour > 0.18 ppm (S)	0	0	0
Max. 1-Hour Conc. (ppm)	0.097	0.057	0.057
Respirable Particulates (PM-10)			
24-Hour > 50 $\mu g/m^3$ (S)	na	na	na
24-Hour > 150 $\mu g/m^3$ (F)	1.9	1.0	1.0
Max. 24-Hr. Conc. ($\mu g/m^3$)	226.5	182.5	165.2
Fine Particulates (PM-2.5)			
24-Hour > 35 $\mu g/m^3$ (F)	1	0	0
Max. 24-Hr. Conc. ($\mu g/m^3$)	41.5	27.2	32.7

na = not available
S=State Standard
F=Federal Standard

Source: Victorville Station: Ozone, CO, NO2, PM-10, PM-2.5
data: www.arb.ca.gov/adam/

Air Quality Standards

The Mojave Desert AQMD has adopted numerical emissions thresholds as indicators of potential impact even if the actual air quality increment cannot be directly quantified. The MDAQMD thresholds are as follows:

Carbon Monoxide (CO)	548 pounds/day	100 tons/year
Nitrogen Oxides (NOx)	137 pounds/day	25 tons/year
Sulfur Oxides (SOx)	137 pounds/day	25 tons/year
Reactive Organic Gases (ROG)	137 pounds/day	25 tons/year
Particulate Matter (PM-10)	82 pounds/day	15 tons/year
Particulate Matter (PM-2.5)	65 pounds/day	12 tons/year
GHG	548,000 pounds/day	100,000 tons/year

Impact Analysis

a. *Less Than Significant Impact* – Projects such as the proposed Adelanto Project for Medical Cannabis Cultivation Development do not directly relate to the AQMP in that there are no specific air quality programs or regulations governing general development. Conformity with adopted plans, forecasts and programs relative to population, housing, employment and land use is the primary yardstick by which impact significance of planned growth is determined. The City requires compliance with the Municipal Code for project such as this, and the Applicant intends to meet these standards. The Adelanto Project for Medical Cannabis Cultivation Development will be fully consistent with both the General Plan designation and Zone classification for the project site because the project will be developed within one of the City's designations allowing for cannabis cultivation development. Thus, the proposed project is consistent with regional planning forecasts maintained by the Southern California Association of Governments (SCAG) regional plans. Air quality impact significance for the proposed project has therefore been analyzed on a project-specific basis. As the analysis of project-related emissions provided below indicates, the proposed project will not cause or be exposed to significant air pollution, and is, therefore, consistent with the applicable air quality plan.

b. *Less Than Significant With Mitigation Incorporated* – Air pollution emissions associated with the proposed project would occur over both a short and long-term time period. Short-term emissions include fugitive dust from construction activities (i.e., site prep, demolition, grading, and exhaust emission) at the proposed Project site. Long-term emissions generated by future operation of the Adelanto Project for Medical Cannabis Cultivation Development include trip generation and water use for irrigation of the cannabis plants, as well as energy in support of the cannabis cultivation.

Adjacent Uses
At present, the site is vacant, and contains scattered native vegetation. Most of the land surrounding the project site is vacant, though a wastewater treatment plant is located across the street to the north of the project site. The site is zoned for Airport Development District (ADD). The land uses immediately surrounding the project area as follows:

- North: Public Utilities
- West: Airport Development District (ADD)
- South: Airport Development District (ADD)
- East: Airport Development District (ADD)

The closest sensitive use to the site is a residence to the south, approximately 1,630 feet from the closest site perimeter. This residence takes access from Greening Street. The closest residence to west is across the I-395 with a 3,300-foot distance separation. This residence is along the western perimeter of Bellflower Street. There is also a home at the NE intersection of El Mirage Road and the I-395 with an approximate 4,300-foot distance separation.

Construction Emissions
CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. CalEEMod was used to analyze project impacts.

Table III-4 is the default equipment and phase durations modeled for the project.

Table III-4
CONSTRUCTION ACTIVITY EQUIPMENT AND DURATIONS
160,000 SF BUILDING, 110 PARKING SPACES, 8.34 ACRES

Phase Name and Duration	Equipment
Grading and Compacting 60 days	1 Grader
	2 Forklifts
	2 Compactors
	2 Loader/Backhoes
Constructions 230 days	2 Forklifts
	3 Loader/Backhoes
	1 Crane
	1 Generator Set
	1 Welder
Pipeline and Roadway Improvement 60 days	2 Mixers
	1 Paver
	1 Paving Equipment
	2 Rollers
	1 Loader/Backhoe

As stated, it was assumed that the entire project is built out in the least number of years rather than in phases. Since the MDAQMD uses an annual threshold this would analyze the worst-case conditions.

Utilizing this indicated equipment fleet shown in Table III-4 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table III-5 as compared to the daily MDAQMD thresholds. Maximum annual project-related air pollution emissions relative to the yearly MDAQMD thresholds are shown in Table III-6.

Table III-5
DAILY CONSTRUCTION EMISSIONS (LBS/DAY)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2021 Peak Daily Project Emissions	2.3	21.1	19.1	0.0	2.1	1.2
2022 Peak Daily Project Emissions	2.0	19.1	18.7	0.0	2.0	1.0
MDAQMD Thresholds	137	137	548	137	82	82
Exceeds Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Table III-6
ANNUAL CONSTRUCTION EMISSIONS (TONS/YEAR)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2021 Annual Construction Emissions	0.3	2.5	2.3	0.0	0.3	0.1
2022 Annual Construction Emissions	0.1	0.5	0.6	0.0	0.1	0.0
MDAQMD Thresholds	25	25	100	25	15	15
Exceeds Thresholds?	***No***	***No***	***No***	***No***	***No***	***No***

Maximum construction-related air pollution emissions were compared to daily and annual MDAQMD thresholds. Maximum daily and annual emissions are less than their associated CEQA thresholds. As such, construction related Air Quality emissions are considered less than significant. Short-term emissions are primarily related to the construction of the project and are recognized to be short in duration and without lasting impacts on air quality. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures (BACMs) be used as required by the Mojave AQMD Rule 403. The following mitigation measure shall be implemented:

AQ-1 ***Dust Control***

- ***Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.***
- ***Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.***
- ***Stabilize previously disturbed areas if subsequent construction is delayed.***
- ***Water exposed surfaces and haul roads 3 times/day.***
- ***Cover all stockpiles with tarps.***
- ***Replace ground cover in disturbed areas quickly.***
- ***Reduce speeds on unpaved roads to less than 15 mph.***
- ***Trenches shall be left exposed for as short a time as possible.***

Operational Emissions

The project would be expected employ 5-10 employees. In addition, cultivation is predicted to consume 537,500 kWh/year of electricity which will be provided with use of a natural gas generator that is expected to consume 7.34 x 10^9 British thermal unit (btu)/year. Water use is estimated at 3,277 gallons per day or 1,196,190 gallons per year.

Operational emissions were calculated using CalEEMod2016.3.2 for a build-out year of 2022. If the project does not come on-line until a later year, emissions would be slightly less because of improvements of vehicular and equipment technology. The daily operational impacts are shown in Table III-7 and annual emissions are shown in Table III-8. As shown, operational emissions will not exceed applicable MDAQMD operational emissions CEQA thresholds of significance.

Table III-7
PROPOSED USES DAILY OPERATIONAL IMPACTS (2022)
OPERATIONAL EMISSIONS (LBS/DAY)

Source	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Area	4.5	0.0	0.0	0.0	0.0	0.0
Energy	0.0	0.1	0.1	0.0	0.0	0.0
Mobile	0.1	0.5	1.0	0.0	0.3	0.1
Generator	24.1	2.3	62.7	0.0	0.1	0.1
Total	**28.6**	**2.9**	**63.8**	**0.0**	**0.4**	**0.2**
MDAQMD Threshold	137	137	548	137	82	82
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Output in Appendix

Table III-8
PROPOSED USES ANNUAL OPERATIONAL IMPACTS (2022)
OPERATIONAL EMISSIONS (TONS/YEAR)

Source	ROG	NOx	CO	SO_2	PM-10	PM-2.5
Area	0.8	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Stationary	0.2	<0.1	0.5	<0.1	<0.1	<0.1
Total	**1.0**	**0.1**	**0.6**	**<0.1**	**0.1**	**<0.1**
MDAQMD Thresholds	25	25	100	25	15	15
Exceeds Threshold?	**No**	**No**	**No**	**No**	**No**	**No**

Source: CalEEMod Output in Appendix

Conclusion
With the incorporation of mitigation measure **AQ-1**, the development of the Adelanto Project for Medical Cannabis Cultivation Development would have a less than significant potential to 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. *Less Than Significant With Mitigation Incorporated* – The proposed project would generate minimal construction and operation related emissions; furthermore, given the large distance between the project site and the nearest sensitive receptors, localized emissions would be minimal. The proposed project would not emit hazardous or toxic emissions that would create an excess cancer risk of more than 10 in a million or a non-cancerous health index of more than 1.0. Therefore, with the implementation of Mitigation Measure **AQ-1** outlined under issue III(b) above, implementation of the Adelanto Project for Medical Cannabis Cultivation Development is anticipated to have a less than significant potential to expose sensitive receptors to substantial pollutant concentrations.

d. *Less Than Significant Impact* – Substantial odor-generating sources include land uses such as agricultural activities, feedlots, wastewater treatment facilities, landfills or various heavy industrial uses. The project does not propose any such uses or activities that would result in potentially significant operational source odor impacts. However, cannabis growth can generate some odors that may be unpleasant to certain persons. The proposed project includes the development of eight individual cannabis cultivation buildings, each building will house a small office building, and will facilitate the growing, cultivation, and manufacturing of medicinal cannabis. Odors on site will be handled utilizing commercial odor controls with carbon filters, which utilize activated charcoal, carbon filters, and an extractor fan for flow of air. There are no sensitive receptors located within 1,000 feet of the proposed project, and the proposed project use is not of the type that would result in odor impacts to sensitive receptors during either construction or operation. Therefore, the potential for objectionable odors posing a health risk to humans on- or off-site is considered a less than significant impact.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IV. BIOLOGICAL RESOURCES: Would the project:				
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, regulations or by the California Department of Fish and Wildlife or U.S. 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?	☐	☐	☐	☒

SUBSTANTIATION: The following information is provided based on a study titled *"Biological Resource Assessment & Jurisdictional Delineation, Medical Cannabis Cultivation Project"* prepared by Jericho Systems, Inc. dated February 5, 2020 and provided as Appendix 2.

General Site Conditions

The site has been used as a trash dump site and there are tire tracks on the parcel indicating human use. The Project site is a creosote bush-dominated shrub community with living vegetation cover at approximately 40 percent, primarily consisting of native creosote (*Larrea tridentata)* with scattered Joshua trees (*Yucca brevifolia*) located in the western portion of the parcel.

Vegetation on site consists of *Larrea tridentata* Shrubland alliance (Sawyer, Keeler-Wolf, 2018), with species including creosote bush, brittlebush (*Encelia farinosa*), mustard (*Brassica tournefortii*), burrow weed (*Ambrosia dumosa*), burrobrush (*Ambrosia salsola*), cholla (*Cylindropuntia* ssp.), and *Schismus* ssp. Numerous Joshua Trees are present within the Survey Area.

Soils are well drained, consisting of Bryman loamy fine sand, 0 to 2 percent slopes (Figure IV-1). According to the USDA (2015) soil series descriptions: The Bryman series consists of deep, well drained soils that formed in alluvium from dominantly granitic sources. Bryman soils are on terraces and older alluvial fans and have slopes of 0 to 15 percent.

Conclusion

Sensitive Biological Resources
No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the field survey.

The site contains suitable habitat for Burrowing Owl (BUOW), desert tortoise, and Mohave ground squirrel. Mitigation is recommended and is outlined in the Impact Analysis, below.

Nesting Birds
The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered a take under federal law. The USFWS, in coordination with the CDFW administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all non-game birds that occur naturally in the State.

Vegetation suitable for nesting birds does exist within and adjacent to the project areas and most birds are protected by the MBTA. Therefore, the mitigation is recommended and is outlined in the Impact Analysis, below.

Sensitive Habitat
The City of Adelanto enforces Title 8, Division 9 of the San Bernardino County Code that requires that every Joshua Tree proposed for removal be inspected by the local jurisdiction to ensure that the Joshua Tree is not a "specimen" class tree requiring preservation and transplantation. There are two recognized sub species of Joshua trees: *Yucca brevifolia* and *Y. b. jaegeriana*. *Y. b. brevifolia* are found in the western and southern Mojave Desert and are the largest of the Joshua trees. Per the County's development code, Specimen Tree size are defined as meeting with one or more of the following criteria: (I) A circumference measurement equal to or greater than 50 inches measured at 4.5 feet above natural grade level. (II) Total tree height of 15 feet or greater (III) Trees possessing a bark-like trunk; (IV) A cluster of 10 or more individual trees, of any size, growing in close proximity to each other.

There are numerous Joshua Trees on site (see photos in Appendix). For compliance with the City and County codes, mitigation is recommended and is outlined in the Impact Analysis, below.

Jurisdictional Waters
No jurisdictional features subject to the Clean Water Act (CWA) or California Fish and Game Code (FGC) under the jurisdictions of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), or California Fish and Wildlife (CDFW) exist within the project area. The project site is located entirely outside of any jurisdictional areas and no permanent or temporary impacts to jurisdictional features will result from the project. Therefore, no permits or authorizations from the USACE, RWQCB, or CDFW will be required.

Impact Analysis

a. *Less Than Significant With Mitigation Incorporated* – Implementation of the project has a potential for a significant adverse effect, either directly or through habitat modifications, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS. The project site is vacant, though as stated above, it been used as an illegal trash dump site. The Biological Resources Assessment (BRA) provided as Appendix 2 to this Initial Study determined that the project site contains suitable habitat for burrowing owl, desert tortoise, and Mohave ground squirrel; however, no State- and/or federally

listed threatened or endangered species, or other sensitive species were observed on site during the field survey. Thus, for purposes of this analysis, it is assumed that temporary ground disturbance within the project site may have a potential to adversely impact Mohave ground squirrel (a State threatened species), BUOW (a State and federally-listed of special concern [SSC]), and desert tortoises (a State and federally-listed threatened species). As such, the following mitigation measures shall be implemented to prevent any impacts to burrowing owl, desert tortoise, and Mohave ground squirrel:

BIO-1 ***A qualified biologist shall develop a Worker Environmental Awareness Program (WEAP) that will include information on general and special status species within the project area, identification of these species and their habitats, techniques being implemented during construction to avoid impacts to species, consequences of killing or injuring an individual of a listed species, and reporting procedures when encountering listed or sensitive species. Construction crews, foremen, and other personnel potentially working on site will attend this education program and place their name on a sign-in sheet. This briefing shall include provisions of any requirements required for the project. The Applicant and their contractor shall implement Worker Environmental Awareness Program training on the first day of work and periodically throughout construction as needed.***

BIO-2 ***In compliance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) the project proponent shall ensure that a pre-construction burrowing owl survey is conducted a maximum of 30 days prior to construction activities. A qualified biologist shall conduct the survey to determine if there are any active burrowing owl burrows within or adjacent to (within 300 feet) the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to CDFW for approval, outlining procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow (per CDFW 2012), depending on the time of year and level of disturbance near the site in accordance with guidelines specified by the CDFW.***

BIO-3 ***Although no desert tortoises were detected during the site surveys, habitat within the project footprint is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in Chapter 6 of the US Fish and Wildlife Service Desert Tortoise (Mojave Population) Field Manual. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.***

BIO-4 ***The Applicant shall perform a protocol MGS presence/absence survey consistent with CDFW Guidelines prior to initiating construction and should***

it be determined that the habitat within the project site is occupied by MGS, the following shall be implemented:

Where avoidance of the MGS habitat within the project site is not feasible, the following actions shall be implemented. For the temporary loss of the presumed occupied MGS habitat, the Applicant shall provide compensation for temporary loss of habitat and individual MGS in the following manner: (1) the Applicant shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; (2) the Applicant shall offset the loss of the temporarily disturbed habitat by purchase of acceptable MGS habitat at a 1:1 ratio; and (3) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur until the Applicant obtains an ITP. Note that the final compensation package contained in the permit may differ from the above compensation package, but the Applicant finds that this compensation package shall at a minimum meet the requirements of this measure.

Therefore, with implementation of the above mitigation, there is a less than significant potential for implementation of this project to have a significant adverse effect, on species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the CDFW or USFWS.

b. *Less Than Significant With Mitigation Incorporated* – Implementation of the proposed project has a potential to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS. Though the project footprint contains suitable habitat for several sensitive species, it does not contain any known riparian habitat or any other sensitive natural community identified by any agency. The project site itself consists of creosote bush-dominated shrub community with living vegetation cover at approximately 40 percent, primarily consisting of native creosote (*Larrea tridentate*) with scattered Joshua trees (*Yucca brevifolia*) located in the western portion of the parcel. As stated above under Conclusions, the City of Adelanto enforces Tile 8, Division 9 of the San Bernardino County Code that requires that every Joshua Tree proposed for removal be inspected by the local jurisdiction to determine whether the tree is a "specimen" class tree that requires preservation and transplantation. Given that there are Joshua Trees on site, the project shall implement the following mitigation measure to comply with City and County codes:

BIO-5 All Projects should be designed to avoid sensitive and/or protected Joshua Trees as per the City of Adelanto and the County of San Bernardino ordinances. This includes equipment staging and storage areas. In the event said sensitive desert plants cannot be avoided, the applicant shall obtain a Native Vegetation Removal Permit and Joshua Tree Survey as part of the pre-construction planning. The survey should first identify all Joshua Trees and other native vegetation as recognized by the City and or County ordinances and assess their type and health. The Applicant should then work to find solutions to avoid these resources; if the resources cannot be avoided, Applicant will develop a relocation plan and obtain permits through all applicable entities.

No other sensitive natural communities have been identified as part of the BRA. Therefore, with implementation of the above mitigation, there is a less than significant potential for implementation of this project to have an adverse effect on any riparian habitat or sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS.

c. *No Impact* – According to the data gathered by Jericho Systems in Appendix 2, no federally protected wetlands occur within the project footprint. Therefore, implementation of the proposed

project will have no potential to impact any federally protected wetlands through direct removal, filling, hydrological interruption, or other means. No mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – Based on the field survey of the project site, the project will not substantially interfere with the movement of any native resident or migratory species or with established native or migratory wildlife corridors, or impede the use of native nursery sites. However, the State does protect all migratory and nesting native birds. No impacts to nesting or migratory birds have been identified in Appendix 2, with the exception evidence of suitable BUOW habitat for which mitigation measure **BIO-1** and **BIO-2** have been identified to reduce impacts to a level of less than significant. Thus, the project area may include locations that function as nesting locations for native birds. To prevent interfering with native bird nesting, the following mitigation measure shall be implemented.

BIO-6 ***The State of California prohibits the "take" of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, a qualified biologist shall be retained by the Applicant, and shall be on site during the nesting season period identified above to monitor all active nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist shall also monitor the habitat within a 50-foot perimeter of the project footprint. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.***

Thus, with implementation of the above measure, any effects on wildlife movement or the use of wildlife nursery sites can be reduced to a less than significant impact.

e. *Less Than Significant With Mitigation Incorporated* – Based on the field survey, the project footprint contains one identified resource—Joshua trees—that are protected by local policies or ordinances. The proposed project will require a permit for Joshua tree relocation/transplant due to the specific regulations pertaining to this species of tree. As such, mitigation measure **BIO-5** will ensure that the project complies with the City and County codes. No other biological resources located within the project footprint are protected under local policies or ordinances. Thus, with the implementation of mitigation measure **BIO-5**, impacts under this issue are considered less than significant.

f. *No Impact* – Please refer to the discussion under response IV(a) above. The Biological Resources Assessment provided as Appendix 2 concluded that the project, is not located in an area within a Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan, and implementation of the project will therefore not result in a significant impact to any such plans. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
V. CULTURAL RESOURCES: Would the project:				
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?	☐	☒	☐	☐

SUBSTANTIATION: A cultural resources report has been prepared to evaluate the potential for cultural resources to occur within the project area of potential effect entitled "*Historical/Archaeological Resources Survey Report: Assessor's Parcel Number 0459-053-53, City of Adelanto, San Bernardino County, California"* dated February 19, 2020, prepared by CRM TECH (Appendix 3).

Background

The purpose of the Cultural Resources study is to provide the City with the necessary information and analysis to determine whether the proposed project would cause substantial adverse changes to any "historical resources" or "tribal cultural resources," as defined by CEQA, that may exist in or around the project area. The purpose of this study is to provide the City with the necessary information and analysis to determine whether the project would cause a substantial adverse change to any "historical resources," as defined by CEQA, that may exist in or around the project area. In order to identify such resources, CRM TECH conducted a historical/ archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey.

During the field survey, a small refuse scatter dating to the circa 1920s to 1930s was recorded within the project boundaries and was designated temporarily as Site 3575-1H, pending the assignment of an official site number. As a surface scatter of common household refuse of unknown origin, and in the absence of an exceptional quantity or quality of the artifacts, this site does not appear to meet any of the criteria for listing in the California Register of Historical Resources. Consequently, it does not qualify as a "historical resource" under CEQA provisions. No other potential "historical resources" were encountered within the project area.

Based on these findings, CRM TECH recommends to the City of Adelanto a finding of No Impact regarding "historical resources." No further cultural resources investigation is recommended for the 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 60 feet of the discovery should be halted or diverted until a qualified archaeologist can evaluate the nature and significance of the finds.

Impact Analysis

a&b. *Less Than Significant With Mitigation Incorporated* – 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."

Per the above discussion and definition, no archaeological sites or isolates were recorded within the project boundaries; thus, none of them requires further consideration during this study. In light of this information and pursuant to PRC §21084.1, the following conclusions have been reached for the project:

- No historical resources within or adjacent to the project area have any potential to be disturbed as they are not within the proposed area in which the facilities will be constructed and developed, and thus, the project as it is currently proposed will not cause a substantial adverse change to any known historical resources.
- No further cultural resources investigation is necessary for the proposed project unless construction plans undergo such changes as to include areas not covered by this study.

However, if any earth moving activities are required, the following mitigation measure will ensure that impacts to any buried cultural materials that may be discovered during earth moving activities is carried are less than significant:

CUL-1 ***Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.***

More specifically, the San Manuel Band of Mission Indians requested in their response to the City's AB-52 consultation letter, that the following mitigation measures shall be implemented:

CUL-2 ***In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.***

CUL-3 ***If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.***

With the above mitigation incorporation, as well as the mitigation identified under Tribal Cultural Resources below, the potential for impacts to cultural resources will be reduced to a less than significant level. No additional mitigation is required.

c. *Less Than Significant Impact* – As noted in the discussion above, no available information suggests that human remains may occur within the Area of Potential Effect (APE) and the potential for such an occurrence is considered very low. Human remains discovered during the project will need to be treated in accordance with the provisions of HSC §7050.5 and PRC §5097.98, which is mandatory. State law (Section 7050.5 of the Health and Safety Code) as well as local laws requires that the Police Department, County Sheriff and Coroner's Office receive notification if human

remains are encountered. Compliance with these laws is considered adequate mitigation for potential impacts, however, the in their response to the City's AB-52 consultation letter, the San Manuel Band of Mission Indians requested that the following mitigation measures shall be implemented in relation to discovery and treatment of human remains:

CUL-4 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

With the incorporation of the above mitigation measures, potential for impact to discovery and treatment of human remains will be reduced to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VI. ENERGY: Would the project:				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operations?	☐	☒	☐	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☒	☐	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the *Air Quality and GHG Impact Analysis, Adelanto Project for Medical Cannabis Cultivation Development, Adelanto, California* prepared by Giroux and Associates dated April 20, 2020. This document is provided as Appendix 1 to this document.

a. *Less Than Significant With Mitigation Incorporated* –The proposed project consists of a cannabis cultivation facility. Both state and local jurisdictions require the use of renewable energy for all commercial cannabis activities, which will lower the energy demand of cannabis cultivation to a less than significant level.

Energy consumption encompasses many different activities. For example, construction can include the following activities: delivery of equipment and material to a site from some location (note it also requires energy to manufacture the equipment and material, such as harvesting, cutting and delivering wood from its source); employee trips to work, possibly offsite for lunch (or a visit by a catering truck), travel home, and occasionally leaving a site for an appointment or checking another job; use of equipment onsite (electric or fuel); and sometimes demolition and disposal of construction waste. The proposed project will employ approximately 5-10 employees on a typical work day, resulting in about 5-10 round trips per day, which is a modest number of trips requiring energy per day from employees. Energy consumption by equipment will be reduced through mitigation that requires shutdowns when equipment is not in use after five minutes and ensures that equipment is operated within proper operating parameters (tune-ups) to minimize emissions and fuel consumption. These requirements are consistent with State and regional rules and regulations. Under the construction scenario outlined above, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption during construction.

The project includes indoor cannabis cultivation which will involve artificial lighting which is anticipated to utilizes wattage at a rate above twenty-five watts per square foot, temperature/

humidity/air flow control, carbon filters, and irrigation and water treatment equipment. As stated in the Air Quality and GHG Impact Analysis provided as Appendix 1 to this Initial Study, The project would be expected employ 5-10 employees. In addition, cultivation is predicted to consume 537,500 kWh/year of electricity which will be provided with use of a natural gas generator that is expected to consume 7.34 x 10^9 btu/year. Water use is estimated at 3,277 gallons per day or 1,196,190 gallons per year.

The Applicant has been informed that Southern California Edison (SCE) does not have adequate capacity to serve the project at this time; however, should an electricity connection become available in the future, the Applicant will work with SCE to connect to the electrical grid. As such, the project will utilize natural gas to generate electricity. The project will be served by Southwest Gas Company. The Applicant will install a natural gas generator that will supply the project with all electricity needs, which is a common practice for cannabis cultivation developments. The Project structures must be constructed in conformance with a variety of existing energy efficiency regulatory requirements or guidelines including:

- Compliance California Green Building Standards Code, AKA the CALGreen Code (Title 24, Part 11), which became effective on January 1, 2017. The purpose of the CALGreen Code is to improve public health, safety, and general welfare by enhancing the design and construction of building through the use of building concepts encouraging sustainable construction practices.
- The provisions of the CALGreen code apply to the planning, design, operation, construction, use, and occupancy of every newly construction building.
- Compliance with California Energy Commission Building Energy Efficiency Standards would ensure that the building energy use associated with the proposed project would not be wasteful or unnecessary.
- Compliance with Indoor Water use consumption reduced through the maximum fixture water use rates.
- Compliance with diversion of construction and demolition materials from landfills.
- Compliance with AQMD Mandatory use of low-pollutant emitting finish materials.
- Compliance with AQMD Rules 431.1 and 431.2 to reduce the release of undesirable emissions.
- Compliance with diesel exhaust emissions from diesel vehicles and off-road diesel vehicle/equipment operations.
- Compliance with these regulatory requirements for operational energy use and construction energy use would not be wasteful or unnecessary use of energy.

Additionally, the State's regulations require indoor cannabis cultivation, beginning January 1, 2023, to ensure that electrical power used for commercial cannabis activity meets the average electricity greenhouse gas emissions intensity required by their local utility provider pursuant to the California Renewables Portfolio Standard Program, division 1, part 1, chapter 2.3, article 16 (commencing with section 399.11) of the Public Utilities Code.

Under the operational scenario for the proposed project, the proposed project will not result in wasteful, inefficient, or unnecessary energy consumption that could result in a significant adverse impact to energy issues based on compliance with the referenced laws, regulations and guidelines. Please refer to the operational impacts discussion under Air Quality, issue III(b). Operational emissions will be well below SCAQMD thresholds.

No mitigation beyond those identified under the Section III, Air Quality above are required.

b. *Less Than Significant With Mitigation Incorporated* – Based on the analysis in the preceding discussion, the proposed project will not conflict with current State energy efficiency or electricity supply requirements or any local plans or programs for renewable energy or energy efficiency requirements. The City of Adelanto has adopted State energy efficiency standards as part of its Municipal Code. No mitigation beyond those identified above are required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VII. GEOLOGY AND SOILS: Would the project:				
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 onsite or offsite land-slide, 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 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?	☐	☒	☐	☐

SUBSTANTIATION

a. i. Ground Rupture

Less Than Significant Impact – According to the regulatory map obtained from the California Department of Conservation showing Alquist-Priolo Earthquake Fault Zones and other seismic hazards (Figure VII-1), the proposed project site is not located in an area that has been mapped as containing geologic hazards, and therefore is not located in an Alquist Priolo Earthquake Fault Zone. The nearest fault zones are about 10 miles to the north (the Helendale Fault Zone) and approximately 25 miles to the south at the San Bernardino Mountains (the San Andreas Fault Zone). As such, the project site and general area do not contain any known faults, active or inactive. Therefore, no potential exists for the proposed Project to experience any fault rupture along a delineated active fault.

ii. Strong Seismic Ground Shaking

Less Than Significant Impact – As stated in the discussion above, several faults run through the region, and as with much of southern California, the proposed structures will be subject to strong seismic ground shaking impacts should any major earthquakes occur in the future. According to the San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay map (Figure VII-2), the proposed Project is not located in close proximity to any delineated active faults. However, due to the proximity of the active San Andreas Fault, about twenty-five miles to the south, and the active Helendale Fault, about ten miles to the northeast, the project site and area can be exposed to significant ground shaking during major earthquakes on either of these regional faults. As a result, and like all other development projects in the City and throughout the Southern California Region, the proposed project will be required to comply with all applicable seismic design standards contained in the 2016 California Building Code (CBC), including Section 1613 Earthquake Loads. Compliance with the CBC will ensure that structural integrity will be maintained in the event of an earthquake. Therefore, impacts associated with strong ground shaking will be less than significant without mitigation.

iii. Seismic-Related Ground Failure Including Liquefaction

No Impact – According to the San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay map (Figure VII-2), the project does not contain land with any liquefaction susceptibility. Therefore, it is not anticipated that the proposed project would be susceptible to seismic-related ground failure, including liquefaction. No impacts are anticipated and no mitigation is required.

iv. Landslides

No Impact – According to the San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay map (Figure VII-2), the project site is not located in an area with any known earthquake induced landslide hazards. Based on a site reconnaissance the project site is essentially flat. Therefore, the project will not expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving landslides. No impacts under this issue are anticipated and no mitigation is required.

b. *Less Than Significant With Mitigation Incorporated* – The project site is vacant with minimal non-native vegetation coverage; the site has been vacant and undisturbed for over 60 years. The Project includes extension of a water pipeline and a sewer pipeline to the project from the intersection of Jonathan Street and Auburn Avenue in the amount of approximately 1,000 LF. City grading standards, best management practices and the Storm Water Pollution Prevention Plan (SWPPP) and Water Quality Management Plan (WQMP) are required to control the potential significant erosion hazards. The topography is generally flat with a ± 5-foot-elevation change within the entirety of the site. It is anticipated that any required soil excavation will be reused on site with any excess cut or fill that may require removal from or transport to the site totaling no more than 2,000 cubic yards (CY). During project construction when soils are exposed, temporary soil erosion could occur, which could be exacerbated by rainfall. Project grading would be managed through the preparation and implementation of a SWPPP, and will be required to implement best management practices to achieve concurrent water quality controls after construction is completed and the Cannabis Cultivation Facility is in operation. The following mitigation measures or equivalent BMPs shall be implemented to address these issues:

GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup.

GEO-2 Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved or recompacted in such a manner that pipeline connections within adjacent roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.

GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from either of the well sites within which the water facilities are being installed.

GEO-4 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.

With implementation of the above mitigation measures, implementation of the SWPPP and associated BMPs, any impacts under this issue are considered less than significant.

c. *Less Than Significant Impact* – Refer to the discussion under VII(a) above. Potential instability associated with slope stability and liquefaction related to the project was determined to be negligible. The potential for shrinkage or subsidence at the site was determined to be limited. The risk for subsidence at the site is considered low because the soils within the project site do not contain substantial nutrients or organic matter, and are not of a clay type, and as such are not particularly susceptible to subsidence. Additionally, the groundwater at the site is very deep, and nearby well pumping is limited, as it is generally focused near the Mojave River to the east, thereby minimizing the potential for groundwater pumping related subsidence. The Project will include engineered fill to ensure that the adequate soil stability at the project site once developed. The San Bernardino County Land Use Plan General Plan Geologic Hazard Overlay map (Figure VII-2) does not identify any landslide or liquefaction potential at or around the project site. Given that the project site will be filled and compacted, and is not located in an area identified as containing any geological hazards, the potential for soil instability is minimal. Therefore, the potential for the project to be located on a geologic unit or soil that is unstable or for the project to cause the soils to become unstable is considered less than significant. No mitigation is required.

d. *Less Than Significant Impact* – According to the United States Department of Agriculture (USDA) Web Soil Survey map prepared for the project site (Appendix 4), the entirety of the proposed project site is located on Bryman Loamy Fine Sand, 0 to 2 Percent Slopes. Expansive soils are generally of a clay type soil, not a sandy soil such as the Bryman Loamy Fine Sand series soils that underlay the project site. Compliance with the 2016 California Building Code (CBC) is sufficient to ensure that the proposed structures will conform to the underlying soils and thereby be constructed safely as habitable structures. Thus, based on the absence of clay-type soils on site, the proposed project would have a less than significant potential to be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e. *No Impact* - This project will be connected to the regional wastewater collection system and it will not utilize any subsurface septic tank-leach system. Therefore, determining if the project site soils are capable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater does not apply. No impacts are anticipated. No mitigation is required.

f. *Less Than Significant With Mitigation Incorporated* – The potential for discovering paleontological resources during development of the project is considered not likely based on the data gathered within the Cultural Resources Report provided as Appendix 3. No unique geologic features are known or suspected to occur on or beneath the sites. However, because these resources are located beneath the surface and can only be discovered as a result of ground disturbance activities, the following measure shall be implemented:

GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

With incorporation of this contingency mitigation, the potential for impact to paleontological resources will be reduces to a less than significant level. No additional mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
VIII. GREENHOUSE GAS EMISSIONS: Would the project:				
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?	☐	☐	☒	☐

SUBSTANTIATION: The following information utilized in this section of the Initial Study was obtained from the *Air Quality and GHG Impact Analysis, Adelanto Project for Medical Cannabis Cultivation Development, Adelanto, California* prepared by Giroux and Associates dated April 20, 2020 (Appendix 1).

a&b. *Less Than Significant Impact* – Global Climate Change (GCC) is defined as the change in average meteorological conditions on the earth with respect to temperature, precipitation, and storms. Many scientists believe that the climate shift taking place since the industrial revolution (1900) is occurring at a quicker rate and magnitude than in the past. Scientific evidence suggests that GCC is the result of increased concentrations of greenhouse gases in the earth's atmosphere, including carbon dioxide, methane, nitrous oxide, and fluorinated gases. Many scientists believe that this increased rate of climate change is the result of greenhouse gases resulting from human activity and industrialization over the past 200 years.

An individual project like the project evaluated in this GHGA cannot generate enough greenhouse gas emissions to effect a discernible change in global climate. However, the project may participate in the potential for GCC by its incremental contribution of greenhouse gasses combined with the cumulative increase of all other sources of greenhouse gases, which when taken together constitute potential influences on GCC.

Significance Thresholds

In response to the requirements of SB97, the State Resources Agency developed guidelines for the treatment of GHG emissions under CEQA. These new guidelines became state laws as part of Title 14 of the California Code of Regulations in March 2010. The CEQA Appendix G guidelines were modified to include GHG as a required analysis element. A project would have a potentially significant impact if it:

- Generates greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

- Conflicts with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Section 15064.4 of the Code specifies how significance of GHG emissions is to be evaluated. The process is broken down into quantification of project-related GHG emissions, making a determination of significance, and specification of any appropriate mitigation if impacts are found to be potentially significant. At each of these steps, the new GHG guidelines afford the lead agency with substantial flexibility.

Emissions identification may be quantitative, qualitative or based on performance standards. CEQA guidelines allow the lead agency to "select the model or methodology it considers most appropriate." The most common practice for transportation/combustion GHG emissions quantification is to use a computer model such as CalEEMod, as was used in the ensuing analysis.

The significance of those emissions then must be evaluated; the selection of a threshold of significance must take into consideration what level of GHG emissions would be cumulatively considerable. The guidelines are clear that they do not support a zero net emissions threshold. If the lead agency does not have enough expertise in evaluating GHG impacts, it may rely on thresholds adopted by an agency with greater expertise.

The MDAQMD has published thresholds for Greenhouse Gases emissions (CO_2e). The daily threshold is 548,000 lbs/day and the annual threshold is 100,000 MT/year.

Project Construction Activity GHG Emissions
The project is assumed to require less than two years for construction. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO_2e emissions identified in Table VIII-1.

Table VIII-1
CONSTRUCTION EMISSIONS (Metric Tons CO_2e)

	CO_2e Daily	**MT CO_2e Annual**
Year 2021	4,596.5	486.5
Year 2022	4,554.9	121.4
Total	**9,151.4**	**607.9**
Amortized	305.0	20.3

CalEEMod Output provided in appendix

Policy from construction activities is typically to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less than significant.

Project Operational GHG Emissions
The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod2016.3.2 output files found in the appendix of this report.

As discussed, the project would be expected employ about 10 employees and therefore a maximum 40 trips per day was modeled. Cultivation is predicted to consume 537,500 kWh/of energy per year which when powered via a generator would require 7.34×10^9 btu/year of natural gas. Water use is estimated at 3,277 gallons per day or 1,196,190 gallons per year.

The total operational and annualized construction emissions for the proposed project are identified in Table VIII-2. The project GHG emissions are considered less than significant.

Table VIII-2
OPERATIONAL EMISSIONS (Metric Tons CO_2e)

Consumption Source	CO_2e Daily	MT CO_2e Annual
Area Sources	0.1	0.0
Energy Utilization	105.3	143.1
Mobile Source	445.4	69.5
Natural Gas Generator	1,618.0	11.2
Solid Waste Generation	Na	75.6
Water Consumption	Na	6.6
Construction	305.0	20.3
Total	**2,473.8**	**326.3**
Guideline Threshold	548,000	100,000

Consistency with GHG Plans, Programs and Policies

Adelanto has not yet developed a Greenhouse Gas Reduction Plan. Therefore, the MDAQMD significance threshold for GHGs of 100,000 MT/year and 548,000 MT/day is applied to this project. The annual GHG emissions associated with the operation of the project are estimated to be 2,473.8 lbs CO_2e per day and 326.3 MT CO_2e per year as summarized in Table VIII-2. As such, the proposed Project would result in a less than significant impact with respect to GHG plans and policies adopted for the purpose of reducing GHG emissions.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
IX. HAZARDS AND HAZARDOUS MATERIALS: Would the project:				
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?	☐	☐	☒	☐

SUBSTANTIATION

a&b. *Less Than Significant With Mitigation Incorporated* – The project may create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials; or may 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. During construction, there is a potential for accidental release of petroleum products in sufficient quantity to pose a significant hazard to people and the environment. The following mitigation measure will be incorporated into the Storm Water Pollution Prevention Plan (SWPPP) prepared for the project and implementation of this measure can reduce this potential hazard to a less than significant level.

HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the project development.

The proposed project consists of an industrial agricultural use that may include the use of cleaners, fertilizers, solvents, and pesticides for routine cleaning and cultivation of medical marijuana. None of these materials would be used in sufficient quantities to pose a threat to the environment or cause a foreseeable release of hazardous materials into the environment. The handling of these hazardous materials would comply with all Federal, State, and local laws. However, the Lahonton Regional Water Quality Control Board (RWQCB) has raised concerns over the potential impacts to the watershed from cannabis-related wastewater and runoff that may contain chemicals or result in solid and nutrient loading. The State of California Water Quality Control Board (State Water Board) has drafted a Cannabis Cultivation Policy[1] 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. As such, the following contingency mitigation measure shall be implemented to ensure that all hazardous materials utilized by the cannabis cultivation operations are stored in accordance with State and Federal laws.

HAZ-2 ***All pesticides shall be used and stored in a manner that prevents them from contaminating the underlying groundwater, soils, and watershed. The Applicant shall develop a Hazardous Materials Communication Plan (HCP) that shall meet State Occupational Safety and Health Administration (OSHA) standards. The HCP shall include protocols for and shall classify hazardous materials on the project site and communicate information concerning hazards and appropriate protective measures to employees. All employees shall receive training based on the standards contained in the HCP prior to handling any hazardous materials on site. The HCP will be available at the facility manager's office. Furthermore, all hazardous materials shall be stored in compliance with State and Federal laws.***

The State Water Board Cannabis Cultivation Policy raises not only concerns over pesticides, but also raises concerns over improperly stored trash and biological waste based on their experience with violations thereof by other cannabis cultivation developments. Therefore, the project shall be required to comply with the following contingency mitigation measure that would require all trash generated on site to be stored in accordance with State and Federal laws to prevent direct leaching or mixing of fluids, or runoff from irrigation or storm events.

HAZ-3 ***All trash generated by the Applicant, including fertilizer containers, spent growth medium, soil amendments, etc. shall be disposed of in accordance with State and Federal law. The Applicant shall periodically (on a monthly basis) inspect the trash disposal area(s) to verify that all trash generated by Project operations is stored within the appropriate trash bin or container, and shall verify that none of the trash bins or containers leak. The Applicant shall repair any leaking trash bins or containers upon discovery of a leak. Furthermore, the Applicant shall be required to remove solid waste periodically (no less than once a month). Solid waste shall be disposed of or recycled at a licensed handling facility.***

According to the State's Cannabis Cultivation Policy, "Irrigation runoff occurs when water is applied at too great a rate or quantity. Because site runoff cannot be used by the plant, it is considered a waste and unreasonable use of water," and as such is considered "a threat to water quality and designated beneficial uses." As such, the Applicant intends to install a water treatment system to treat irrigation water infused with fertilizers that will remove fertilizers and allow the water to be used again for irrigation. Therefore, the Applicant shall adhere to the following mitigation measure:

[1] https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

HAZ-4 The Applicant shall install a water treatment system to treat irrigation water that will allow water to be used again for irrigation. Such water treatment systems typically create concentrated levels of total dissolved solids (TDS) and brine that must be disposed of according to State and Federal law. As such, the Applicant shall collect the brine generated by the water treatment system and it shall be transported and disposed of by a permitted and licensed hazardous materials service provider.

Thus, with implementation of the above mitigation measures, the project would not create a significant hazard to the public or the environment either through the routine transport, use, or disposal of hazardous materials, or through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. Impacts are considered less than significant with implementation of standards best management practices (BMPs) and mitigation incorporated and no further mitigation is required.

c. *No Impact* – The project site is located greater than one-quarter mile from any public school. The nearest school—Adelanto Elementary School, located at 17931 Jonathan St, Adelanto CA 92301—is more than one mile south of the project site. Based on this information, implementation of the project will not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school. No adverse impacts are anticipated. No additional mitigation is required.

d. *No Impact* – The project site is vacant with minimal non-native vegetation coverage; the site has been vacant and undisturbed for over 60 years; additionally, the project includes extension of a water pipeline and a sewer pipeline to the project site from the intersection of Jonathan Street and Auburn Avenue. The project will not be located on a site that is included on a list of hazardous materials sites that are currently under remediation. According to the California State's GeoTracker website (consistent with Government Code Section 65962.5), which provides information regarding Leaking Underground Storage Tanks (LUST), there are no active LUST sites located within the project site, or within a 2,500-foot radius of the site. The nearest open sites are Military Cleanup sites within the SCLA; the nearest Military Cleanup site is shown on Figure IX-2, while the description of the Cleanup efforts are shown on Figure IX-3; this site has been remediated. None of these sites have no potential to create a hazard that would affect the operations of the proposed Project. Therefore, the proposed construction and operation of the site as the proposed Cannabis Cultivation Facility will not create a significant hazard to the population or to the environment from their implementation. No impacts are anticipated. No mitigation is required.

e. *Less Than Significant Impact* – As previously stated, the proposed project is located within 1 mile of the SCLA boundaries. The project site is located within the SCLA Land Use Plan, as the Airport is located less than a mile east of the project site. The proposed use of the project site as for cannabis cultivation use is considered a "Normally Acceptable" use by the SCLA Land Use Plan. First, given the distance from the project to the Airport, the proposed building height is not anticipated to interfere with Airport operations. Furthermore, the proposed building height is within the acceptable building heights as defined by the Federal Aviation Administration (FAA). Additionally, given that the majority of the operations of the proposed Cannabis Cultivation Facility will occur indoors, the project is not anticipated to cause any significant aircraft hazards for people residing or working in the project area. Therefore, impacts under this issue are considered less than significant.

f. *Less Than Significant With Mitigation Implementation* – The proposed project includes installation of a pipeline within the adjacent roadway, as well as installation of pavement within the roadways immediately adjacent to the project site. Pipeline will be installed between the project site and the intersection of Auburn Avenue and Johnathan Street. These roadways are not located adjacent to any major arterial roadway, such as Highway 395. The City of Adelanto does not identify any evacuation routes within the City, though Highway 395 is the logical north-south regional connecting roadway within the City. Access to the site will be provided through an entryway along

Auburn Avenue. The proposed onsite parking and circulation plans will be reviewed by the local Fire Department and Police Department to ensure that the project's ingress/egress are adequate for accommodating emergency vehicles. Finally, a construction traffic plan will be required to be submitted to the Fire Department prior to development in order to provide adequate emergency access during construction of the proposed project. Because the proposed project will require construction within adjacent roadways, a limited potential to interfere with an emergency response or evacuation plan will occur during construction. Mitigation to address traffic disruption and emergency access issues are included in the Transportation Section. Therefore, with the implementation of mitigation identified in the Transportation Section of this document, there is a less than significant potential for the development of the project to physically interfere with any adopted emergency response plans, or evacuation plans. No impacts are anticipated and no mitigation is required.

g. *Less Than Significant Impact* – According to the CAL FIRE, there are no fire hazard zones within the City of Adelanto that are of state responsibility (Figure IX-4); furthermore, there are no very high fire hazard zones of local responsibility (Figure IX-5). The proposed project is located in in a flat rural area with native desert vegetation within and surrounding the site. This is an area with very little fuel load in the surrounding area that could be susceptible to wildfires. Therefore, because the proposed project is located outside of the area identified as a high fire hazard zone by CAL FIRE, the proposed project has a less than significant potential to expose people or structures to a significant risk of loss, injury or death involving wildland fires. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
X. HYDROLOGY AND WATER QUALITY: Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or groundwater quality?	☐	☒	☐	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such 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 onsite or offsite?	☐	☐	☒	☐
(ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?	☐	☐	☒	☐
(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?	☐	☐	☒	☐

SUBSTANTIATION

a. *Less Than Significant With Mitigation Incorporated* – The proposed project is located within a developed area within the Mojave River watershed, which is within the Adelanto Planning Area of the Lahontan Regional Water Quality Control Board (RWQCB). The City of Adelanto Water Department (AWD) is responsible for the water supply to the City. The City's water supply comes solely from groundwater production from 15 potable wells in three pressure zones, transmission and distribution pipelines, booster stations and reservoirs. AWD is required to meet potable water quality requirements of the Division of Drinking Water, State Water Resources Control Board (SWRCB), as well as the California Department of Public Health.

Typically, the three main sources of potential violation of water quality standards or waste discharge requirements are from generation of municipal wastewater, stormwater runoff, and potential discharges of pollutants, such as accidental spills. Municipal wastewater is delivered to AWD, and is processed at the City's activated sludge wastewater treatment facility (WTF) through an operations and maintenance contract with PERC Water Corporation, which meets the waste discharge requirements imposed by the RWQCB. To address stormwater and accidental spills

within this environment, any new project must ensure that site development implements a SWPPP and a National Pollutant Discharge Elimination System (NPDES) to control potential sources of water pollution that could violate any standards or discharge requirements during construction and a Water Quality Management Plan (WQMP) to ensure that project-related after development surface runoff meets discharge requirements over the short- and long-term. The WQMP would specify stormwater runoff permit Best Management Practices (BMPs) requirements for capturing, retaining, and treating on site stormwater once the Cannabis Cultivation Facility has been developed. Because the project site currently consists of pervious surfaces, the project has identified onsite drainage that will generally be directed to the onsite retention pond that will be developed as part of the project. The WQMP prepared for the project will include measures to minimize urban runoff from impacting receiving waters to the Maximum Extent Practicable (MEP). This is a requirement of the County and City, which enforces the RWQCB's measure to protect the watershed. These measures include development of a bioretention basin that will collect and treat runoff generated within the project site. Furthermore, given that the cannabis cultivation operations will occur indoors, it is not anticipated that any irrigation runoff will be discharged from the site. These measure can reduce potential impacts to receiving waters to a less than significant level.

Additionally, the City will impose conditions of approval that would require compliance with its regulations and standards related to the release of fertilizers or pesticides which may be released by the Cannabis Cultivation Facility in its cultivation practices. The SWPPP would specify the BMPs that the project would be required to implement during construction activities to ensure that all potential water pollutants of concern are prevented, minimized, and/or otherwise appropriately treated prior to being discharged from the subject property. With implementation of these mandatory Plans and their BMPs, as well as mitigation measures **HAZ-1** through **HAZ-3** above, the development of the Adelanto Project for Medical Cannabis Cultivation Development will not cause a violation of any water quality standards or waste discharge requirements.

b. *Less Than Significant Impact* – Implementation of the proposed project will not substantially decrease groundwater supplies or interfere substantially with groundwater recharge such the project may impede sustainable groundwater management of the basin. The project will be supplied water by the AWD, which utilizes groundwater to supply its customers. The City of Adelanto does not currently have water demand factors. However, the Applicant estimates water demand for this project at 3,277 gallons per day (GPD) at project buildout. This equates to about 3.67 acre feet per year (AFY) at project build out.

According to the AWD 2015 Urban Water Management Plan (UWMP) indicates that, as of 2015, the City was only 15% built out. The Adelanto North 2035 Comprehensive Sustainable Plan indicates that there are 6,956.6 acres of industrial uses. Assuming 15% utilization of the available acreage of industrial related land use within the City, there are approximately 1,043.49 acres of developed industrial uses within the City. The AWD 2015 UWMP indicates that the water demand for industrial uses in 2015 was 235 AFY, which equates to a demand of about 0.23 AFY per acre of industrial use. The proposed project would contribute an additional 8.34 acres to the total developed industrial uses progressively as the project is built out between 2020 and 2026. Utilizing the above discussion as a theoretical water demand estimation, a typical industrial project of this size would require about 1.88 AFY. However, AWD estimates that by 2025 the projected water use is anticipated to grow to 281 AFY and 299 AFY respectively. Therefore, given the estimated water demand the proposed project at 3.67 AFY, the project would demand water within the projected growth in water demand for industrial uses. Furthermore, the 2015 UWMP indicates that AWD's planned water supply exceeds demand from 2020-2040. The City of Adelanto has a Water Conservation Program that new development such as the Cannabis Cultivation Facility must comply with. Examples of water conservation methods include water conserving plumbing fixtures, drought tolerant landscaping, and drip irrigation systems. Furthermore, the proposed project will install a retention pond to store surface water runoff from the site, which will recharge to the groundwater basin. Even further still, the development will include a water treatment system that would reclaim irrigation runoff through the removal of fertilizers, which will allow the water to be used again for irrigation, thereby minimizing the amount of water required to be obtained from

AWD. Therefore, no significant adverse impacts to groundwater resources are forecast to occur from implementing the proposed Project, nor will the project contribute to cumulative groundwater depletion based on the conservation measures outlined above. No mitigation is required.

c. i. Result in substantial erosion or siltation onsite or offsite?

Less Than Significant Impact – The proposed Project is not anticipated to significantly change the volume of flows downstream of the project site, and would not be anticipated to change the amount of surface water in any water body in an amount that could initiate a new cycle of erosion or sedimentation downstream of the project site. The onsite drainage will capture the incremental increase in runoff from the project site associated with project development. Runoff will be detained on the project site within the proposed retention pond located at the eastern end of the project site. This system has been designed to intercept the peak 100-year flow rate from the project site. The downstream drainage system will not be altered and given the control of future surface runoff from the project site, thus, the potential for downstream erosion or sedimentation will be controlled to a less than significant impact level.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding onsite or offsite?

Less Than Significant Impact – The proposed Project will alter the existing drainage courses or patterns onsite but will maintain the existing offsite downstream drainage system through control of future discharges from the site, which would prevent flooding onsite or offsite from occurring. The onsite drainage will capture the incremental increase in runoff from the project site associated with project development, which will decrease the amount of pervious area within the site. Runoff will be detained on the project site within the proposed retention pond located at the eastern end of the project site. This system will be designed to capture the peak 100-year flow runoff from the project site or otherwise be detained on site and discharged in conformance with San Bernardino County requirements. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that stormwater runoff will not substantially increase the rate or volume of runoff in a manner that would result in flooding on- or off-site. Impacts under this issue are considered less than significant with no mitigation required.

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?

Less Than Significant With Mitigation Incorporated – As indicated above, the project will not substantially create or contribute runoff water that would exceed the capacity of existing or planned stormwater capacity, or provide substantial additional sources of polluted water, particularly because the site plan includes a retention pond located at the eastern end of the project site, and other water quality control measures that will collect on-site runoff. The Project will require the implementation of a SWPPP and WQMP, and implementation of mitigation measures **HAZ-1** through **HAZ-4**, which will ensure that discharge of polluted material does not occur or is remediated in the event of an accidental spill. However, in most cases onsite surface flows will be collected and conveyed to the retention pond, or otherwise controlled through other water quality control measures. At present, the site is mostly pervious and runoff is either retained on site or is directed into adjacent public rights-of-way; thus, with the development of the site as proposed and through development of the planned drainage systems, runoff from the site would be managed more efficiently than that which exists at present. Thus, the implementation of onsite drainage improvements and applicable requirements will ensure that that drainage and stormwater will not create or contribute runoff that would exceed the capacity of existing or planned offsite stormwater drainage systems or provide substantial additional sources of polluted runoff. Impacts under this issue are considered less than significant with implementation of mitigation.

iv. Impede or redirect flood flows?

Less Than Significant Impact – According to the San Bernardino County General Plan Hazards Overlay Map, provided as Figure X-1, the project site is not located within a special flood hazard area inundated by a 100-year flood; the project is located within Zone X (which is inside the 500-year flood plain), and is located about one-quarter mile from an intermittent stream that is within the 100-year flood plain. Furthermore, development of this site is not anticipated to redirect or impede flood flow at the project site, particularly given that surface flows on site will be directed to the onsite drainage features which will be capable of intercepting the stormwater flows from the project site or otherwise be detained on site and discharged in conformance with San Bernardino County requirements. Therefore, the proposed project would have a less than significant potential to substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would impede or redirect flows. No mitigation is required.

d. *Less Than Significant Impact* – Please refer to response IX(c) above. The proposed Project is not located within a flood hazard, tsunami, or seiche zone. As stated above, the project site is located east of the SCLA in a relatively undeveloped area within the City of Adelanto. During construction, runoff will be managed through implementation of a SWPPP and Water Quality Management Plan (WQMP), and implementation of mitigation measures **HAZ-1** through **HAZ-4**, which will ensure that the risk of release of pollutants from the project site is less than significant. The Project is located more than 75 miles from the Pacific Ocean, which eliminates the potential for a tsunami to impact the project area. Additionally, a seiche would not occur within the vicinity of the project because no lakes or enclosed bodies of water exist near the site that could be impacted by such an event. Finally, according to the San Bernardino County General Plan, General Land Use Plan with Hazard Overlays map (Figure X-1), the proposed Project is located outside of an inundation area. As such, with the implementation of mitigation measures **HAZ-1** through **HAZ-4** above, the proposed Project would have a less than significant potential to risk release of pollutants due to Project inundation.

e. *Less Than Significant With Mitigation Incorporated* – Please refer to the discussion under issue X(b) above. The "2018 Sustainable Groundwater Management Basin Prioritization: Process and Results" document, prepared by the State of California Department of Water Resources[2], indicates that the Mojave River Basin, which underlies the proposed project, is under very low priority. As stated in the 2018 Basin Prioritization, of the 517 groundwater basins in California, 109 are prioritized as high and medium and 408 are prioritized as low and very low. The Mojave River Basin does not have a sustainable groundwater management plan or and the project will not interfere with the overall water quality of the basin as discussed above. Though the Groundwater Basin has several sub-basins that experienced overdrafts in 2017-2018[3], the Watermaster replaces overdrafts through fees collected from water users that is used to purchase additional water supplied through the State Water Project. Furthermore, compliance with the State water conservation measures is enforced through AWD visits to operations, such as the proposed Cannabis Cultivation Facility. As such, it is not anticipated that the proposed cannabis cultivation project would have a significant potential to conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan.

[2] https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Basin-Prioritization/Files/2018-Sustainable-Groundwater-Management-Act-Basin-Prioritization.pdf
[3] http://www.mojavewater.org/files/25AR1718_Revised.pdf

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XI. LAND USE AND PLANNING: Would the project:				
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *No Impact* – The project site consists of one parcel of land, which is zoned for and designated as Airport Development District. The surrounding uses are primarily designated for Airport Development District use to the east, south, and west, while the use to the north is Public Utility. The project site is currently undeveloped and has been vacant for over 60 years. The site contains scattered native vegetation characteristic of the High Desert area, and is located about two-thirds of a mile from the SCLA. The addition of the Cannabis Cultivation Facility at this location would be consistent with both the uses surrounding the project and the surrounding land use designations and zoning classifications. Consequently, the development of the project site with the proposed use will not divide any established community in any manner. Therefore, no adverse impacts under this issue are anticipated and no mitigation is necessary.

b. *No Impact* – The project site is zoned for and designated as Airport Development District within the City of Adelanto. Within the City of Adelanto, the cultivation of marijuana requires the approval of a Conditional Use Permit (CUP) in the Airport Development District zone. With approval of the CUP application on this property, the proposed project will be fully consistent with both the General Plan designation and Zone classification for the project site as shown on Figure XI-1 which depict the City of Adelanto General Plan Land Use and Zoning Map. Therefore, the implementation of this Project at this site will be consistent with surrounding land uses, and current use of the site. Based on this information, implementation of the Cannabis Cultivation Project would not conflict with any applicable any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect. No impacts are anticipated under this issue and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XII. MINERAL RESOURCES: Would the project:				
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?	☐	☐	☐	☒

SUBSTANTIATION:

a&b. *No Impact* – The proposed site for the Cannabis Cultivation Facility is located within land designated for Airport Development District use, which is a designation that does not include mining operations as a permitted use. According to the Adelanto North Sustainable Plan, the only designation in which mineral resource mining is permitted are in Open Space uses. Given that the project is designated for Airport Development District use, and is not designated for mineral resource-related land uses, the development of the project will not cause any loss of mineral resource values to the region or residents of the state, nor would it result in the loss of any locally important mineral resources identified in the City's General Plan. No impacts would occur under this issue. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIII. NOISE: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of a 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?	☐	☐	☐	☒

SUBSTANTIATION

Background

Noise is generally described as unwanted sound. The Project will be developed as a cannabis cultivation farm that will consist of the following: 8 buildings containing flower, vegetation, and greenhouse areas, parking, and a retention pond. The site is within the Airport Development District land use area, about two thirds of a mile east of the SCLA. The use to the south, east, and west is Airport Development District, and the use to the north is Public Utilities. The project site is located in an area with moderate to heavy background noise from the nearby Airport.

The unit of sound pressure ratio to the faintest sound detectable to a person with normal hearing is called a decibel (dB). Sound or noise can vary in intensity by over one million times within the range of human hearing. A logarithmic loudness scale, similar to the Richter scale for earthquake magnitude, is therefore used to keep sound intensity numbers at a convenient and manageable level. The human ear is not equally sensitive to all sound frequencies within the entire spectrum. Noise levels at maximum human sensitivity from around 500 to 2,000 cycles per second are factored more heavily into sound descriptions in a process called “A-weighting,” written as “dBA.”

Leq is a time-averaged sound level; a single-number value that expresses the time-varying sound level for the specified period as though it were a constant sound level with the same total sound energy as the time-varying level. Its unit is the decibel (dB). The most common averaging period for Leq is hourly.

Because community receptors are more sensitive to unwanted noise intrusion during more sensitive evening and nighttime hours, state law requires that an artificial dBA increment be added to quiet time noise levels. The State of California has established guidelines for acceptable community noise levels that are based on the Community Noise Equivalent Level (CNEL) rating scale (a 24-hour integrated noise measurement scale). The guidelines rank noise land use compatibility in terms of "normally acceptable," "conditionally acceptable," and "clearly unacceptable" noise levels for various land use types. The State Guidelines, Land Use Compatibility for Community Noise Exposure, single-family homes are "normally acceptable" in exterior noise environments up to 60 dB CNEL and "conditionally acceptable" up to 70 dB CNEL based on this scale. Multiple family residential uses are "normally acceptable" up to 65 dB CNEL and "conditionally acceptable" up to 70 CNEL. Schools, libraries and churches are "normally acceptable" up to 70 dB CNEL, as are office buildings and business, commercial and professional uses with some structural noise attenuation.

Impact Analysis

a. *Less Than Significant With Mitigation Incorporated* – The proposed project is located in an area designated for Airport Development District, which is a designation intended to provide a limited development holding zone for airport supportive uses, and also protect sensitive uses from being developed in an area that may experience excessive airport related noise. The nearest residences are located to the south of the project site approximately 1,500 feet to the south of the project site. Background noise is anticipated to be within the City of Adelanto Municipal Code noise standard for Industrial uses. The proposed project site is currently vacant, and as such currently does not generate any noise.

   Short Term Noise
   Short-term construction noise impacts associated with the proposed project will occur in phases as the project site is developed. The earth-moving sources are the noisiest type of equipment typically ranging from 82 to 85 dB at 50 feet from the source. Construction equipment generates noise that ranges between approximately 75 and 90 dBA at a distance of 50 feet. Refer to Table XIII-1, which shows construction equipment noise levels at 25, 50 and 100 feet from the noise source. Section 17.90.020 of the Adelanto Municipal Code limits the hours of construction as follows:

   To reduce potential noise and air quality nuisances, the following items shall be listed as "General Notes" on the construction drawings:

   (1) Construction activity and equipment maintenance is limited to the hours between 7:00 a.m. to dusk on weekdays. Construction may not occur on weekends or State holidays, without prior consent of the Building Official. Non-noise generating activities (e.g. interior painting) are not subject to these restrictions. City and State construction projects, such as road re-building or resurfacing, and any construction activity that is in response to an emergency, shall be exempt from this requirement.

Table XII-1
NOISE LEVELS OF CONSTRUCTION EQUIPMENT AT 25, 50 AND 100 FEET (in dBA Leq) FROM THE SOURCE

Equipment	Noise Levels at 25 feet	Noise Levels at 50 feet	Noise Levels at 100 feet
Earthmoving			
Front Loader	85	79	73
Backhoes	86	80	74
Dozers	86	80	74
Tractors	86	80	74
Scrapers	91	85	79
Trucks	91	85	79
Material Handling			
Concrete Mixer	91	85	79
Concrete Pump	88	82	76
Crane	89	83	77
Derrick	94	88	82
Stationary Sources			
Pumps	82	79	70
Generator	84	78	72
Compressors	87	81	75
Other			
Saws	84	78	72
Vibrators	82	76	70

Source: U.S. Environmental Protection Agency "Noise"

The Adelanto Municipal Code also limits stationary construction equipment from exceeding 65 dBA at the nearest residence, and enforces that all construction related truck trips must be limited to the Adelanto designated truck routes. The proposed project would be constructed in compliance with the City's Noise Performance Standards, and therefore construction of the project would be less than significant. However, to minimize the noise generated on the site to the extent feasible, the following mitigation measures shall be implemented:

NOI-1 ***All construction vehicles and fixed or mobile equipment shall be equipped with properly operating and maintained mufflers.***

NOI-2 ***All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided with adequate hearing protection devices to ensure no hearing damage will result from construction activities.***

NOI-3 ***Equipment not in use for five minutes shall be shut off.***

NOI-4 ***Equipment shall be maintained and operated such that loads are secured from rattling or banging.***

NOI-5 ***Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.***

NOI-6 The City will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.

Long-Term Noise

Noise generated as a result of the project would attenuate to a less than significant level, or an inaudible level by the time it reached the residences 1,500 feet to the south. The primary source of noise generated as a result of the operation of the Cannabis Cultivation Facility will be vehicular traffic entering, exiting and accessing the site, maintenance equipment that may be required as needed, heating, ventilation and air conditioning units. The City of Adelanto does not identify exterior noise standards for industrial land uses; the Land Use Compatibility Guidelines Table VIII-2 (provided as Figure XII-1) indicates that, unless a sensitive use in proximity to a site would be impacted, industrial uses do not have a CNEL limit within which to operate. The project is not anticipated to operate at a level greater than 75 CNEL at the nearest residences over 1,500 feet to the south. Furthermore, the project site is within an industrial land use area in support of the SCLA, in which noise levels are generally higher than within other land use. Noise attenuates at a rate of approximately 6 to 7 decibels per doubling of distance, and much like construction noise, equipment required to operate the Cannabis Cultivation Facility will generate some noise, anticipated to range from approximately 75 dBA to 85 dBA at 50 feet from the source. Given the distance from the nearest residence to the project site—about 1,500 feet to the south—the noise environment at the nearest residence will be well within the levels deemed acceptable by the City. With no sensitive receptors nearby, the proposed project should not expose of persons to or generation of noise levels in excess of established standards. Thus, based on the existing noise environment within this industrial corridor, and through the implementation of the mitigation measures identified above, neither operation or construction of the proposed project would violate noise standards outlined in the City of Adelanto Development Code. Impacts under this issue are considered less than significant with mitigation incorporated.

b. *Less Than Significant Impact* – Vibration is the periodic oscillation of a medium or object. The rumbling sound caused by vibration of room surfaces is called structure borne noises. Sources of groundborne 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 or transient. Vibration is often described in units of velocity (inches per second), and discussed in decibel (dB) units in order to compress the range of numbers required to describe vibration. Vibration impacts related to human development are generally associated with activities such as train operations, construction, and heavy truck movements.

The Federal Transit Authority (FTA) Noise and Vibration Assessment[4] states that in contrast to airborne noise, ground-borne vibration is not a common environmental problem. Although the motion of the ground may be noticeable to people outside structures, without the effects associated with the shaking of a structure, the motion does not provoke the same adverse human reaction to people outside. Within structures, the effects of ground-borne vibration include noticeable movement of the building floors, rattling of windows, shaking of items on shelves or hanging on walls, and rumbling sounds. The FTA Assessment further states that it is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. However, some common sources of vibration are trains, trucks on rough roads, and construction activities, such as blasting, pile driving, and heavy earth-moving equipment. The FTA guidelines identify a level of 80 VdB for sensitive land uses. This threshold provides a basis for determining the relative significance of potential Project related vibration impacts.

Due to the large size of the project site, and the lack of any sensitive receptors within a reasonable distance of the project site, the proposed project will not expose people to generation of excessive

[4] https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf

groundborne vibration or groundborne noise levels. During construction, certain construction activities have some potential to create vibration, but due to the size of the site and lack of sensitive receptors, any impacts are considered less than significant. Furthermore, the City of Adelanto Municipal Code Section 17.90.030 places restrictions on vibration such that no ground vibration shall be allowed which can be felt without the aid of instruments at or beyond the subject property line. The proposed project would comply with this restriction because no sensitive receptors exist within the vicinity of the project that would be impacted by project related vibration. Additionally, because the rubber tires and suspension systems of heavy trucks and other on-road vehicles provide vibration isolation and reduced noise, it is unusual for on-road vehicles to cause noticeable groundborne noise or vibration impact. Most problems with on-road vehicle-related noise and vibration can be directly related to a pothole, bump, expansion joint, or other discontinuity in the road surface. Smoothing a bump or filling a pothole will usually solve the problem. The proposed project would be constructed with smooth new pavement throughout the project and would not result in significant groundborne noise or vibration impacts from vehicular traffic. Thus, any impacts under this issue are considered less than significant and no mitigation is required.

c. *No Impact* – As previously stated, the proposed project is located within 1 mile of the SCLA boundaries. The project site is located within the SCLA Land Use Plan, as the Airport is located less than a mile east of the project site. The proposed use of the project site for cannabis cultivation use is considered a "Normally Acceptable" use by the SCLA Land Use Plan. The proposed project is located outside of the airport noise contours as shown on Figure XII-2. No private airstrips are located in the vicinity of the project. Therefore, given that the project is not located within the airport noise contours, construction and operation of the project at this location would not expose people residing or working in the project area to excessive noise levels in a safety hazard for people residing or working in the project area as a result of proximity to a public airport or private airstrip. No impacts are anticipated and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIV. POPULATION AND HOUSING: Would the project:				
a) Induce substantial 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?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* – The proposed project will employ about 10 persons in support of project operations, and about 35 persons in support of construction of each phase of the proposed project. It is unknown whether the new employees will be drawn from the general area or will be new residents to the project area. Relative to the total number residents of Adelanto, approximately 35,293 persons in 2018 according to the Southern California Association of Governments (SCAG) 2019 Local Profile for the City of Adelanto[5], an increase of about 10 permanent and 35 temporary employees as new residents represents a minor increase in the area population. According to the Adelanto North 2035 Sustainable Plan, the City's estimated build-out/2035 population is 63,000 persons. As such, given the current population, the City of Adelanto has planned for significant

[5] https://www.scag.ca.gov/Documents/Adelanto.pdf

population growth to occur, and as such, any project related population growth is not anticipated to be beyond that which has been planned by the City. Thus, based on the type of project, and the small increment of potential indirect population growth the project may generate, the population generation associated with project implementation will not induce substantial population growth that exceeds either local or regional projections.

b. *No Impact* – No occupied structures exist within the project site and as such, no residences or persons are located on the project site; therefore, implementation of the proposed project will not displace substantial numbers of existing housing or persons, necessitating the construction of replacement housing elsewhere. No impacts will occur; therefore, no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XV. PUBLIC SERVICES: 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:				
a) Fire protection?	☐	☐	☒	☐
b) Police protection?	☐	☐	☒	☐
c) Schools?	☐	☐	☒	☐
d) Parks?	☐	☐	☒	☐
e) Other public facilities?	☐	☐	☒	☐

SUBSTANTIATION

a. *Less Than Significant Impact* – The nearest fire station serving the project is approximately one mile away from the project site, located at the Southern California Logistics Airport. The City is served by San Bernardino County Fire, and the Adelanto Station, Station #322 is located at 10370 Rancho Rd, Adelanto, CA 92301. The San Bernardino County Fire Department (SBCFD) provides fire protection and emergency medical services for the City. It would take approximately 5 minutes for SBCFD to reach the site from Station #319. Emergency access to the project site will be provided by the site entrance on Auburn Avenue. The proposed project will incrementally add to the existing demand for fire protection services. Cumulative impacts are mitigated through the payment of a Fire Impact Fee, which is intended to provide funds directed towards fire protection. Additionally, standard conditions will be imposed by the City and the Fire Department to ensure adequate fire flow at the proposed Cannabis Cultivation Facility. There is no identified near term need to expand facilities in a manner that could have adverse impacts on the environment. As such, these requirements are considered adequate measures to prevent any significant impacts under this issue, thus no mitigation is required.

b. *Less Than Significant Impact* – The City of Adelanto receives police services through the San Bernardino County Sheriff Department. The Department enforces local, state, and federal laws; performs investigations and makes arrests; administers emergency medical treatment; and responds to County emergencies. The Victor Valley Patrol Station is located at 11613 Bartlett Avenue, Adelanto, California 92301. The Victor Valley Station has one captain, one lieutenant, eight sergeants, seven detectives, fifty eight patrol deputies, three sheriff's service specialist, seven

office specialists, two office assistants, one secretary and one automotive officer. The proposed project will result in a marginal increase in demand for police services. Access to the site for Police protection services will be provided at the entrance to the project site on Auburn Avenue. The proposed project will incrementally add to the existing demand for police protection services. These incremental impacts are mitigated through the contribution to the City's General Fund through revenues generated by the project. This contribution is deemed sufficient to minimize impacts to police protection to a less than significant level.

c. *Less Than Significant Impact* – The proposed project is an industrial farming development that is not forecast to generate any new direct demand for the area schools. The proposed project may place additional demand on school facilities, but such demand would be indirect and speculative. The Adelanto Elementary School District and the Victor Valley Union High School District requires residential and commercial developments to pay School District Fees. Industrial projects such as the proposed Cannabis Cultivation Facility are not required to pay these fees. Given that the proposed project would only generate about 10 jobs, which has the potential to increase the population by at most 10 persons, the potential for the proposed project to create a significant demand for school services is less than significant.

d. *Less Than Significant Impact* – The proposed project will not directly add to the existing demand on local recreational facilities. The City of Adelanto collects a park and recreation impact fee from residential projects. At present, the City does not require industrial projects such as the proposed Cannabis Cultivation Development, to contribute fees to parks and recreation. Therefore, with no existing or planned park facilities located within the project site, and no required payment of fees, the proposed project would have a less than significant impact to parks and recreation facilities.

e. *Less Than Significant Impact* – Other public facilities include library and general municipal services. Since the project will not directly induce substantial population growth, it is not forecast that the use of such facilities will substantially increase as a result of the proposed project. The Adelanto North 2035 Sustainable Plan states the following Policy "Use development impact fees to fund library facilities, equipment, and programs that are needed as a result of new development projects." These fees are not currently enforced by the City; however, the project will contribute to the City's General Fund through revenues generated by the project, which may be used in support of Library services, and which are considered sufficient to offset any impacts to other public facilities as a result of implementing the project. Thus, any impacts under this issue are considered less than significant, and no mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVI. RECREATION:				
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?	☐	☐	☐	☒

SUBSTANTIATION

a. *Less Than Significant Impact* – As addressed in the discussion under XIII and XVI(d) above, the proposed Project does not include a use that would substantially induce population growth. As stated in the discussion under Population and Housing, the project would create approximately 10 permanent and 35 temporary positions of employment. It is unknown what portion of the temporary workforce will be new residents. The proposed Project will contribute to the City's General Fund through payment of property and sales tax. Additionally, the proposed project will be developed on land that is designated by the City's General Plan for Airport Development District use, and is not listed in any planning documents as desirable land for future park development. Therefore, the proposed project would have a less than significant potential to physically deteriorate park or recreational facilities through increased use. No mitigation is required.

b. *No Impact* – The proposed project consists of developing a Cannabis Cultivation Facility within the City of Adelanto. The project will develop a cannabis cultivation farm, and will not include any recreational facilities, nor will it require the construction of new recreational facilities or expansion of new recreational facilities because the proposed project is not anticipated to substantially induce any population growth. The site is currently vacant with no existing recreational facilities on or near the project site, and the project site is in an area of the City that is designated for Airport Development District use. As a result, no recreational facilities—existing or new—are required to serve the project, thus any impacts under this issue are considered less than significant. No mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVII. TRANSPORTATION: Would the project:				
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 inter-sections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

SUBSTANTIATION

a. *Less Than Significant Impact* – Implementation of the proposed Cannabis Cultivation Project will not conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system. The proposed project is located off of Auburn Avenue at the corner of Auburn Avenue and Pearmain Avenue, which is east of Highway 395 and west of the SCLA. According to the Adelanto North 2035 Sustainable Plan, Auburn Avenue is intended to be a collector street (4 lanes, pedestrian oriented with Class II bike lanes). However, at present, Auburn Avenue east of Highway 395 is not paved; only a small of Auburn Avenue section west of Highway 395—about 1,000 feet—is paved. Traffic along this roadway is minimal at present, as it this corridor consists mostly of vacant lots from Highway 395 to the SCLA along Auburn Avenue. The proposed project will pave the roadway by developing of half of the adjacent streets on three sides of the project: the proposed Auburn Avenue to the north, Barcelona Avenue to the south, and Pearmain Avenue to the east. Each of these segments of roadway would be approximately 700 feet in length, and about 10 feet in width. This is the project's contribution to circulation in the vicinity of the project as the City aims to pave many of the roadways in this part of the City. Given that the underlying land use of the project site (Airport Development District) supports the proposed use of the site as a Cannabis Cultivation Facility, the circulation system as envisioned in the Adelanto North 2035 Sustainable Plan is suited to handle the anticipated volume of traffic for a use of this type. It is anticipated that the volume of traffic generated by the proposed project will average at 105 trips per day. This is inclusive of 15 round trips per day by employees that are assumed to occur, which assumes some employees may travel off-site for a break during the day. The project assumes 85 customer trips. Deliveries related to operations of the proposed project are anticipated to have a potential to occur on a daily basis, with an estimated average of 5 round trips per day. No more than 50 of these trips are anticipated to occur during peak AM or PM hours. Based on the planned capacities of the adjacent roadways, and that the project will contribute a minimal amount of traffic to the surrounding roadways, the proposed project has a less than significant potential to conflict with a program, plan, ordinance or policy addressing the roadway circulation system.

The Adelanto North 2035 Sustainable Plan states that "the [Victor Valley Transit Authority] VVTA's Comprehensive Transit Plan proposes the following service improvements and addresses general changes that can benefit the entire VVTA network." These improvements include an extension of the existing Route 33 to serve Auburn Avenue in the future. At present, no bus service is provided in the immediate vicinity of the project site; however, the nearest route (Route 33) stops about 2,000 feet southeast of the project site at Chamberlaine Way and Jonathan Street. As stated above, Auburn Avenue is planned to eventually accommodate a Class II Bikeway (bike lane) and eventually will include sidewalks to accommodate pedestrians, but at present, the roadway adjacent to the project site is not paved, and it is unknown when in the future the planned infrastructure will

be installed in this area. Additionally, the project will contribute to pedestrian infrastructure along Auburn Avenue at the site boundary. Given the lack of available alternative modes of transportation in the project area, and that the project will contribute to off-site improvements, the proposed project has a less than significant potential to conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities. No mitigation is required.

b. *Less Than Significant Impact* – The proposed project would develop a Cannabis Cultivation Facility within the City of Adelanto. The City has not yet developed a threshold for vehicle miles travelled. The proposed project is not located in close proximity to many alternative modes of transportation, such as bike lanes, sidewalks, and transit because the project is located in an industrial corridor, with minimal surrounding development. However, the proposed project will install sidewalk that will contribute to the creation of pedestrian circulation in the project area. The type of Project proposed is anticipated to continue to attract a local clientele (within the City of Adelanto, and other High Desert Cities), many of which would not travel a great distance to visit the Cannabis Cultivation Facility; furthermore, it is anticipated that the majority of the persons working at the proposed facility will be residents of the City of Adelanto or surrounding cities. As such, it is not anticipated that employees or visitors will travel great distances to specifically visit this project. Given that the proposed Project is anticipated to serve the local community and visitors passing through utilizing Highway 395 nearby, the number of vehicle miles traveled per trip generated by the project is anticipated to be minimal. The greatest distance in which vehicles would travel to the site would occur as a result of employees and customers that may visit from out of town as either visitors or locals from the surrounding cities, but these trips would be minimal compared to the number of trips per day made to the site by locals on a regular basis. Therefore, the proposed Cannabis Cultivation Project is not anticipated to result in significant impact related to vehicle miles travelled, and thus would not conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b). Impacts under this issue are considered less than significant.

c. *Less Than Significant With Mitigation Incorporated* – The proposed project operations will occur entirely within the project site boundaries. However, construction activities will include curb improvements as well as installation of a driveway and gated entryway to provide access to the site. Large trucks delivering equipment or removing small quantities of excavated dirt or debris can enter the site without major conflicts with the flow of traffic on the roadways used to access the site. Primary access to the site will be provided by a new entrance on Auburn Avenue, which intersects with Highway 395 west of the project site. Access to the site must comply with all City design standards, and would be reviewed by the City to ensure that inadequate design features or incompatible uses do not occur. Both entrances to the site provide access to the public to a small portion of the site, while a gated side entrance allows for restricted access to the remainder of the site. Additionally, the proposed project would be required to comply with all applicable fire code and ordinance requirements for construction and access to the site. Emergency response and evacuation procedures would be coordinated with the City, as well as the police and fire departments, resulting in less than significant impacts; no mitigation measures are required.

The proposed project will temporarily alter the roadway(s) adjacent to the project site to pave half of the adjacent streets on three sides of the project: the proposed Auburn Avenue to the north, Barcelona Avenue to the south, and Pearmain Avenue to the east. Each of these segments of roadway would be approximately 700 feet in length, and about 10 feet in width. Additionally, the project will require construction within Auburn Avenue at the project site to Jonathan Street to install sewer and water pipelines to serve the project. Construction within these roadways will require one lane to be closed to complete installation of pipeline and to pave the three segments of roadway; this will ensure that each roadway can still operate during construction. However, the project will require implementation of a traffic management plan in order to comply with the City of Adelanto and the County of San Bernardino Master Plan of Roads and Circulation Plans, which will ensure adequate circulation within the City. As such, to mitigate the potential impacts to traffic flow, the following mitigation measure shall be implemented:

TRAN-1 The construction contractor will provide adequate traffic management resources, as determined by the City of Adelanto. The City shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. At a minimum this plan shall include the following:

a) Methods to minimize the amount of time spent on construction activities;
b) Methods to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes;
c) Methods to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure adequate traffic flow;
d) Identification of alternative routes, if necessary, that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and
e) Identification of methods or procedures to ensure that at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.

TRAN-2 The City shall require that all disturbances to public roadways maintained by the City to be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable City standard design requirements.

Upon implementation of a construction traffic management plan, any potential increase in hazards due to design features or incompatible use will be considered less than significant in the short term. In the long term, no impacts to any hazards or incompatible uses in existing roadways are anticipated because once the utilities are constructed, the roadway will be returned to its original condition, or better. Operation of the proposed Cannabis Cultivation Facility would be similar to the surrounding uses, and the design of the project would not create any hazards to surrounding roadways. Thus, any impacts are considered less than significant with implementation of mitigation. No additional mitigation is required.

d. *Less Than Significant With Mitigation Incorporated* – The proposed project consists of activities that will take place along Auburn Avenue, with limited activities at the project boundary at Barcelona Avenue to the south and Pearmain Avenue to the east. Vehicles travelling to and from the project site would utilize Highway 395 to access the site by way of Auburn Avenue. Access to the site is adequate and the nearest emergency response station is located just east of the project site at 11613 Bartlett Avenue, Adelanto, California 92301. The City of Adelanto does not identify any evacuation routes within the City, though Highway 395 is the logical north-south regional connecting roadway within the City. With implementation of mitigation measures **TRAN-1** and **TRAN-2**, adequate emergency access along Auburn Avenue will be maintained. Thus, because of the lack of adverse impact on local circulation no potential for significant impacts on emergency access are forecast to occur during construction or operation. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XVIII. TRIBAL CULTURAL RESOURCES: Would the project cause a substantial change in the significance of tribal cultural resources, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographic-ally defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to the California Native American tribe, and that is:				
a) Listed or 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	☐	☒	☐	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in sub-division (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.	☐	☒	☐	☐

SUBSTANTIATION

A Tribal Resource is defined in the Public Resources Code section 21074 and includes the following:

- Sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe that are either of the following: included or determined to be eligible for inclusion in the California Register of Historical Resources or included in a local register of historical resources as defined in subdivision (k) of Section 5020.1;
- 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 Section 5024.1. In applying the criteria set forth in subdivision (c) of Section 5024.1 for the purpose of this paragraph, the lead agency shall consider the significance of the resources to a California American tribe;
- 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;
- A historical resource described in Section 21084.1, a unique archaeological resource as defined in subdivision (g) of Section 21083.2, or a “non-unique archaeological resource” as defined in subdivision (h) of Section 21083.2 may also be a tribal resource if it conforms with the criteria of subdivision (a).

a&b. *Less Than Significant With Mitigation Incorporated* – The project site is located within the City of Adelanto, which has been contacted pursuant to Public Resources Code section 21080.3.1 by the following California Native American tribes traditionally and cultural affiliated with the City of Adelanto: Torres Martinez Desert Cahuilla Indians, San Manuel Band of Mission Indians, and Twenty-Nine Palms Band of Mission Indians. The City contacted these tribes to initiate the AB-52 process on March 3, 2020 to notify the tribes of the proposed project through mailed letters. As stated under the Cultural Resources section above, the project site consists of a vacant lot with native scattered vegetation covering the site. There is a potential to unearth tribal cultural resources of importance during the earth moving activities, which include excavation of the water retention basin that will be located on site. During the 30-day consultation period that concluded in early

April 2020, only the San Manuel Band of Mission Indians responded. The City received a letter back from the San Manuel Band of Mission Indians (SMBMI) requesting mitigation measure to be included as part of this project. Given the amount of existing disturbance within the proposed project footprint, the Tribe (SMBMI) indicated that they have no concerns with the proposed project and simply requests the following language be included regarding inadvertent discoveries:

TCR-1 ***The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CUL-2, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.***

TCR-2 ***Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.***

As such, AB-52 concluded with no other input, thus with mitigation measures above, and with mitigation measures **CUL-1** through **CUL-4,** and **GEO-1**, any cultural resources of importance uncovered will be handled properly. Therefore, with implementation identified mitigation measures, the project is not anticipated to cause a change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape, or object with 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. No further mitigation is required.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XIX. UTILITIES AND SERVICE SYSTEMS: Would the project:				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment, or stormwater 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 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 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?	☐	☐	☒	☐

SUBSTANTIATION

a. Water

Less Than Significant Impact – The project will be supplied water by the AWD, which utilizes groundwater to supply its customers. The proposed project will require construction of about 1,000 LF of pipeline to connect to the existing supply connection at Jonathan Street and Auburn Road to the west of the project site. The installation of this pipeline underground would not cause any significant environmental effects and, as discussed under issue X(b) of this document, the water system will not require expansion of existing water facilities beyond the construction of the conveyance pipeline to the proposed project. Therefore, development of the Cannabis Cultivation Project would not result in a significant environmental effect related to the relocation or construction of new or expanded water facilities. Impacts are less than significant.

Wastewater

Less Than Significant Impact – The proposed project will develop a Cannabis Cultivation Facility within the City of Adelanto. The City operates a recently upgraded 4.0 million gallons per day (MGD) activated sludge wastewater treatment facility through an operations and maintenance contract with PERC Water Corporation. All wastewater generated by the project, once developed, will be delivered to AWD, which is located across the street from the project site at the northeast corner of Jonathan St and Auburn Avenue. The project will require construction of about 1,000 LF of pipeline to connect to the existing sewage collection system at Jonathan Street and Auburn Road to the west of the project site. According to AWD's 2015 UWMP, it is estimated that Adelanto's customers generate wastewater roughly proportional to 60 to 70 percent of the City's water demand. As such, it is assumed that the project would generate between 1.85 and 4.78 AFY of wastewater, which is equivalent to 1,655 and 4,269 gallons per day (GPD). This increase in wastewater generated within the City is nominal compared to the 4.0 MGD capacity of the AWD

wastewater treatment plant (WTP). The WTP treats approximately 1.5 MGD of wastewater at present, which leaves approximately 2.5 MGD of capacity remaining.[6,7] At this time and for the foreseeable future, AWD maintains ample capacity to treat the wastewater delivered to its treatment plant. As such, given the nominal amount of additional wastewater generated by the employees and visitors of the future Cannabis Cultivation Facility as a result of the proposed project, it is not anticipated that AWD would need to expand their existing facilities beyond that which is already planned to accommodate the wastewater generated by the proposed project. Furthermore, the installation of the underground sewage pipeline required to extend sewer services to the project site would not cause any significant environmental effects and, will not require expansion of existing wastewater treatment facilities beyond the construction of the sewer pipeline to the proposed project. Therefore, development of the project would not result in a significant environmental effect related to the relocation or construction of new or expanded wastewater facilities. Impacts are less than significant.

Stormwater

Less Than Significant Impact – Please refer to the discussion under Section X, Hydrology and Water Quality, of this Initial Study. The project design incorporates onsite drainage, which will capture the incremental increase in runoff from the project site associated with project development. Runoff will be detained on the project site within the proposed retention pond located at the northwest corner of the project site. This system has been designed to intercept the peak 100-year flow rate from the project site. The downstream drainage system will not be altered and given the control of future surface runoff from the project site; therefore, surface water will be adequately managed on site and as such, development of the project would not result in a significant environmental effect related to the relocation or construction of new or expanded stormwater facilities. Impacts are less than significant.

Electric Power

Less Than Significant Impact – Electrical power will not be drawn from the local provided (SoCal Edison) because SoCal Edison has expressed that they do not have adequate capacity to serve the project. Therefore, the Applicant intends to utilize natural gas, through a natural gas fueled generator to serve the electricity needs of the project. Therefore, development of the Cannabis Cultivation Facility would not result in a significant environmental effect related to the relocation or construction of new or expanded electrical power facilities. Impacts are less than significant.

Natural Gas

Less Than Significant Impact – Natural gas will be supplied by Southwest Gas Company. The site will connect to the existing natural gas line along Auburn Avenue. This effort to connect the site to natural gas is not anticipated to result in significant impacts, as evidenced by the discussions in preceding sections. Therefore, development of the Cannabis Cultivation Facility would not result in a significant environmental effect related to the relocation or construction of new or expanded natural gas facilities. Impacts are less than significant.

Telecommunications

Less Than Significant Impact – Development of the Cannabis Cultivation Facility would require installation of telecommunication services, including wireless internet service and phone service. This can be accomplished through connection to existing services that are available to the developer at the project site. Therefore, development of the Cannabis Cultivation Facility would not result in a significant environmental effect related to the relocation or construction of new or expanded telecommunications facilities. Impacts are less than significant.

b. *Less Than Significant With Mitigation Incorporated* – The City of Adelanto's AWD is responsible for the water supply for the City. The City's water supply comes solely from groundwater production from 15 potable wells. The City's water system delivers water to three pressure zones and consists

[6] https://www.ci.adelanto.ca.us/214/Water-Sewer
[7] https://percwater.com/project/adelanto/

of the aforementioned wells, transmission and distribution pipelines, booster stations and reservoirs. The AWD is required to meet water quality requirements of the RWQCB. The City of Adelanto does not currently have water demand factors; however, based on the discussion located under Section X, Hydrology, issue b, the project is anticipated to demand an estimated 3.67 AFY at project build out. The AWD 2015 UWMP indicates that the water demand for industrial uses in 2015 was 235 AFY, which equates to a demand of about 0.23 AFY per acre of industrial use. The proposed project would contribute an additional 8.34 acres to the total developed industrial uses progressively as the project is built out between 2020 and 2026. Utilizing the above discussion as a theoretical water demand estimation, a typical industrial project of this size would require about 1.88 AFY. However, AWD estimates that in 2025 the projected water use is anticipated to grow to 299 AFY. Therefore, given the estimated water demand the proposed project at 3.67 AFY, the project would demand water within the projected growth in water demand for industrial uses. Furthermore, the 2015 UWMP indicates that AWD's planned water supply exceeds demand from 2020-2040. Through the payment of water standby charges, hookup and connection fees, the impact of implementing the proposed project on water systems are forecast to be less than significant. Additionally, the proposed development will include a water treatment system that would reclaim irrigation runoff through the removal of fertilizers, which will allow the water to be used again for irrigation, thereby minimizing the amount of water required to be obtained from AWD. Based on these substantiating data, provision of domestic water supply can be accomplished without causing significant impacts on the existing water system or existing entitlements. However, the following mitigation measure shall be implemented to reduce consumption of potable water by the project site:

UTL-1 If recycled water becomes available at the project site, the project shall connect to this system and utilize recycled water for landscape irrigation, and any other feasible uses of recycled water on the project site.

With implementation of the above mitigation measures, any impacts under the above issues are considered less than significant.

c. *Less Than Significant Impact* – The AWD Wastewater Treatment Plant has a capacity of 4.0 MGD. The AWD Wastewater Treatment Plant treats approximately 1.5 MGD of wastewater at present, which leaves approximately 2.5 MGD of capacity remaining. It is estimated that Adelanto's customers generate wastewater roughly proportional to 60 to 70 percent of the City's water demand. As such, it is assumed that the project would generate between 1.85 and 4.78 AFY of wastewater, which is equivalent to 1,655 and 4,269 GPD, which is miniscule when compared to the 2.5 MGD of capacity remaining during daily operations. The AWD Wastewater Treatment Plant implements all requirements of the RWQCB, State Water Resource Control Board and City of Adelanto 2007 Sewer System Master Plan that protect water quality and monitor wastewater discharge. Thus, the proposed project will consume some capacity of the existing AWD Wastewater Treatment Plant, but the proposed project would not result in a determination by the 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&e. *Less Than Significant Impact* – The proposed project will generate demand for solid waste service system capacity and has a potential to contribute to potentially significant cumulative demand impacts on the solid waste system. Solid waste generation rates shown on CalRecycle and segregated by sector state that industrial uses such as that which this project proposes can produce 5 pounds per 1,000 square foot per day (lbs/1,000sf/year).[8] According to the site plan, the building area totals 203,228 SF, which would equate to approximately 1,016.14 tons of solid waste per year, or after an assumed 50% diversion to be recycled per the state's solid waste diversion requirements under AB 939, the project solid waste generation will be about 508.07 tons per year. With the City's mandatory source reduction and recycling program, the proposed project is not forecast to cause a significant adverse impact to the waste disposal system.

[8] https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

The Victorville Sanitary Landfill has adequate capacity to handle the waste generated at the Adelanto Project for Medical Cannabis Cultivation Development. According to the CalRecycle, the maximum permitted capacity of Victorville Sanitary Landfill is 83,200,000 Cubic Yards (CY), while its remaining capacity is 81,510,000 CY; the Victorville Sanitary Landfill can accept 3,000 tons per day. The City of Adelanto contracts with Burrtec Waste and Recycling Services to provide commercial trash services. It is not anticipated that the project will generate a significant amount of construction waste, as the project aims to use any excavated material on site, with a neutral amount of cut and fill. However, should the proposed project need to remove any excess soils, the soil removal will be accomplished using trucks during normal working hours, with a maximum of 50 round trips per day. Furthermore, any hazardous materials collected on the project site during either construction of the project will be transported and disposed of by a permitted and licensed hazardous materials service provider. Therefore, the project is expected to comply with all regulations related to solid waste under federal, state, and local statutes. The project is expected to comply with all regulations related to solid waste under federal, state, and local statutes and be served by a landfill(s) with sufficient permitted capacity to accommodate the project's solid waste disposal needs. No further mitigation is necessary.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XX. WILDFIRE: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
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 wildfire?	☐	☐	☐	☒
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, 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?	☐	☐	☐	☒

SUBSTANTIATION

a-d. *No Impact* – The proposed Project is not located in or near state responsibility areas or lands classified as very high fire hazard severity zone, therefore the proposed Project can have no impacts to any wildfire issues. According to the CAL FIRE, there are no fire hazard zones within the City of Adelanto that are of state responsibility (Figure IX-4); furthermore, there are no very high fire hazard zones of local responsibility (Figure IX-5). The project area is located within an area with very little fuel load in the surrounding area that could be susceptible to wildfires and is located within an area removed from the high fire hazard areas that are located adjacent to the San Bernardino Mountains to the south. As such, no impacts under these issues are anticipated.

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact or Does Not Apply
XXI. MANDATORY FINDINGS OF SIGNIFICANCE:				
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?	☐	☒	☐	☐

SUBSTANTIATION

The analysis in this Initial Study and the findings reached indicate that the proposed project can be implemented without causing any new project specific or cumulatively considerable unavoidable significant adverse environmental impacts. Mitigation is required to control potential environmental impacts of the proposed project to a less than significant impact level. The following findings are based on the detailed analysis of the Initial Study of all environmental topics and the implementation of the mitigation measures identified in the previous text and summarized following this section.

a. *Less Than Significant With Mitigation Incorporated* – The Project has no potential to cause a significant impact any biological or cultural resources. The project has been identified as having minimal potential to degrade the quality of the natural environment, substantially reduce 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, or reduce the number or restrict the range of a rare or endangered plant or animal. Based on the historic disturbance of the project area, and its current condition, the potential for impacting biological resources is low; however, mitigation has been identified in order to protect nesting birds. The cultural resources evaluation concluded that the project footprint does not contain any known important cultural resources, but to ensure that any accidentally exposed subsurface cultural resources are properly handled, contingency mitigation measures will be implemented. Mitigation measures to protect tribal cultural resources through the provision of a Native American monitor. With incorporation of Project mitigation measure all biology and cultural resource impacts will be reduced to a less than significant level.

b. *Less Than Significant With Mitigation Incorporated* – The Project has 11 potential impacts that are individually limited, but may be cumulatively considerable. These are: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology/Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems. The Project is not considered growth-inducing, as defined by *State CEQA Guidelines.* These issues require the implementation of mitigation measures to reduce impacts to a less than significant level and ensure that cumulative effects are not cumulatively considerable.

The City of Adelanto has many other cannabis projects that are in process, are currently being developed, or have recently been developed. As stated under Hazards and Hazardous Materials and Hydrology and Water Quality, the Lahonton RWQCB has expressed a concern that the water quality within the watershed may experience degradation from cumulative runoff generated by cannabis uses. This Project must adhere to several mitigation measures intended to prevent degradation of water quality and groundwater depletion. These measures will ensure that this project will not contribute to cumulative degradation of the watershed. All other environmental issues were found to have no significant impacts without implementation of mitigation. The potential cumulative environmental effects of implementing the proposed project have been determined to be less than considerable and thus, less than significant impacts.

c. *Less Than Significant With Mitigation Incorporated* – The Project will achieve long-term community goals through the provision of growth in tax dollars generated within the City. The short-term impacts associated with the project, which are mainly construction-related impacts, are less than significant with mitigation, and the proposed Project is compatible with long-term environmental protection. The issues of Air Quality, Geology and Soils, and Hazards and Hazardous Materials, and Noise require the implementation of mitigation measures to reduce human impacts to a less than significant level. All other environmental issues were found to have no significant impacts on humans without implementation of mitigation. The potential for direct human effects from implementing the proposed project have been determined to be less than significant.

Conclusion

This document evaluated all CEQA issues contained in the latest Initial Study Checklist form. The evaluation determined that either no impact or less than significant impacts would be associated with the issues of Agricultural and Forestry Resources, Greenhouse Gas Emissions, Land Use and Planning, Mineral Resources, Population/Housing, Public Services, and Recreation. The issues of Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Hazards and Hazardous Materials, Hydrology and Water Quality, Noise, Transportation, Tribal Cultural Resources, and Utilities and Service Systems require the implementation of mitigation measures to reduce project specific and cumulative impacts to a less than significant level. The required mitigation has been proposed in this Initial Study to reduce impacts for these issues to a less than significant impact level.

Based on the findings in this Initial Study, the City of Adelanto proposes to adopt a Mitigated Negative Declaration (MND) for the Adelanto Project for Medical Cannabis Cultivation Development. A Notice of Intent to Adopt a Mitigation Negative Declaration (NOI) will be issued for this Project by the City. The Initial Study and NOI will be circulated for 30 days of public comment. At the end of the 30-day review period, a final MND package will be prepared and it will be reviewed by the City for possible adoption at a future City Council or Planning Commission meeting, the date for which has yet to be determined. If you or your agency comments on the MND/NOI for this project, you will be notified about the meeting date in accordance with the requirements in Section 21092.5 of CEQA (statute).

Note: Authority cited: Sections 21083 and 21083.05, Public Resources Code. Reference: Section 65088.4, Gov. Code; Sections 21080(c), 21080.1, 21080.3, 21083, 21083.05, 21083.3, 21093, 21094, 21095, and 21151, Public Resources Code; *Sundstrom v. County of Mendocino*,(1988) 202 Cal.App.3d 296; *Leonoff v. Monterey Board of Supervisors*, (1990) 222 Cal.App.3d 1337; *Eureka Citizens for Responsible Govt. v. City of Eureka* (2007) 147 Cal.App.4th 357; *Protect the Historic Amador Waterways v. Amador Water Agency* (2004) 116 Cal.App.4th at 1109; San *Franciscans Upholding the Downtown Plan v. City and County of San Francisco* (2002) 102 Cal.App.4th 656.

Revised 2019
Authority: Public Resources Code sections 21083 and 21083.09
Reference: Public Resources Code sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3/ 21084.2 and 21084.3

SUMMARY OF MITIGATION MEASURES

Aesthetics

AES-1 A facilities lighting plan shall be prepared and shall demonstrate that glare from operating and safety night lights that may create light and glare affecting air traffic are sufficiently shielded and directed. Furthermore, all building materials shall be selected to minimize glare potential, or painted or otherwise treated to minimize glare potential from aircraft overflights. This plan shall be implemented by the Applicant with the approval of the City to minimize light or glare intrusion onto adjacent properties.

Air Quality

AQ-1 Dust Control

- Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces and haul roads 3 times/day.
- Cover all stockpiles with tarps.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.

Biological Resources

BIO-1 A qualified biologist shall develop a Worker Environmental Awareness Program (WEAP) that will include information on general and special status species within the project area, identification of these species and their habitats, techniques being implemented during construction to avoid impacts to species, consequences of killing or injuring an individual of a listed species, and reporting procedures when encountering listed or sensitive species. Construction crews, foremen, and other personnel potentially working on site will attend this education program and place their name on a sign-in sheet. This briefing shall include provisions of any requirements required for the project. The Applicant and their contractor shall implement Worker Environmental Awareness Program training on the first day of work and periodically throughout construction as needed.

BIO-2 In compliance with the CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) the project proponent shall ensure that a pre-construction burrowing owl survey is conducted a maximum of 30 days prior to construction activities. A qualified biologist shall conduct the survey to determine if there are any active burrowing owl burrows within or adjacent to (within 300 feet) the impact area. If an active burrow is observed outside the nesting season (September 1 to January 31) and the burrow is within the impact area, a Burrowing Owl Exclusion Plan shall be prepared and submitted to CDFW for approval, outlining procedures used to exclude burrowing owls (e.g., using passive relocation with one-way doors). The loss of any active burrowing owl burrow territory shall be mitigated through replacement of habitat and burrows at no less than a 1:1 ratio. If an active burrow is observed outside the nesting season (i.e., between September 1 and January 31) and the burrow is not within the impact area, construction work shall be restricted within 160 to 1,605 feet of the burrow (per CDFW 2012), depending on the time of year and level of disturbance near the site in accordance with guidelines specified by the CDFW.

BIO-3 Although no desert tortoises were detected during the site surveys, habitat within the project footprint is considered marginally suitable for this species. Therefore, a qualified biologist shall conduct a pre-construction clearance survey within 30 days prior to initiating construction in accordance with procedures described in Chapter 6 of the US Fish and Wildlife Service Desert

Tortoise (Mojave Population) Field Manual. Following the pre-construction survey, the biologist will make a determination regarding tortoise mitigation: (1) if a biological monitor should be present at the site during all clearing and grubbing activities above grade; (2) if desert tortoise fencing needs to be installed around the perimeter of the construction work zone; or (3) if no further action is required. The biologist/monitor should remain on-call during construction activities to respond to a circumstance where a desert tortoise wanders into the construction area.

BIO-4 The Applicant shall perform a protocol MGS presence/absence survey consistent with CDFW Guidelines prior to initiating construction and should it be determined that the habitat within the project site is occupied by MGS, the following shall be implemented:

Where avoidance of the MGS habitat within the project site is not feasible, the following actions shall be implemented. For the temporary loss of the presumed occupied MGS habitat, the Applicant shall provide compensation for temporary loss of habitat and individual MGS in the following manner: (1) the Applicant shall obtain a 2081 Incidental Take Permit (ITP) from the CDFW; (2) the Applicant shall offset the loss of the temporarily disturbed habitat by purchase of acceptable MGS habitat at a 1:1 ratio; and (3) conserved habitat shall be provided with an appropriate endowment to ensure permanent protection and the conserved habitat shall be managed by an agency or party considered acceptable to the CDFW. No ground disturbance shall occur until the Applicant obtains an ITP. Note that the final compensation package contained in the permit may differ from the above compensation package, but the Applicant finds that this compensation package shall at a minimum meet the requirements of this measure.

BIO-5 All Projects should be designed to avoid sensitive and/or protected Joshua Trees as per the City of Adelanto and the County of San Bernardino ordinances. This includes equipment staging and storage areas. In the event said sensitive desert plants cannot be avoided, the applicant shall obtain a Native Vegetation Removal Permit and Joshua Tree Survey as part of the pre-construction planning. The survey should first identify all Joshua Trees and other native vegetation as recognized by the City and or County ordinances and assess their type and health. The Applicant should then work to find solutions to avoid these resources; if the resources cannot be avoided, Applicant will develop a relocation plan and obtain permits through all applicable entities.

BIO-6 The State of California prohibits the “take” of active bird nests. To avoid an illegal take of active bird nests, any grubbing, brushing or tree removal should be conducted outside of the State identified nesting season (Raptor nesting season is February 15 through July 31; and migratory bird nesting season is March 15 through September 1). Alternatively, a qualified biologist shall be retained by the Applicant, and shall be on site during the nesting season period identified above to monitor all active nests, the efficacy of established buffers, and to document any new nesting occurrences. The qualified biologist shall also monitor the habitat within a 50-foot perimeter of the project footprint. Active bird nests MUST be avoided during the nesting season. If an active nest is located in the project construction area it will be flagged and a 300-foot avoidance buffer placed around it. No activity shall occur within the 300-foot buffer until the young have fledged the nest.

Cultural Resources

CUL-1 Should any cultural resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection shall be performed immediately by a qualified archaeologist. Responsibility for making this determination shall be with the District's onsite inspector. The archaeological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

CUL-2 In the event that cultural resources are discovered during project activities, all work in the immediate vicinity of the find (within a 60-foot buffer) shall cease and a qualified archaeologist meeting Secretary of Interior standards shall be hired to assess the find. Work on the other portions of the project outside of the buffered area may continue during this assessment period. Additionally, the San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed within TCR-1, regarding any pre-contact finds and be provided information after the archaeologist makes his/her initial assessment of the nature of the find, so as to provide Tribal input with regards to significance and treatment.

CUL-3 If significant pre-contact cultural resources, as defined by CEQA (as amended, 2015), are discovered and avoidance cannot be ensured, the archaeologist shall develop a Monitoring and Treatment Plan, the drafts of which shall be provided to SMBMI for review and comment, as detailed within TCR-1. The archaeologist shall monitor the remainder of the project and implement the Plan accordingly.

CUL-4 If human remains or funerary objects are encountered during any activities associated with the project, work in the immediate vicinity (within a 100-foot buffer of the find) shall cease and the County Coroner shall be contacted pursuant to State Health and Safety Code §7050.5 and that code enforced for the duration of the project.

Geology and Soils

GEO-1 Stored backfill material shall be covered with water resistant material during periods of heavy precipitation to reduce the potential for rainfall erosion of the material. If covering is not feasible, then measures such as the use of straw bales or sand bags shall be used to capture and hold eroded material on the project site for future cleanup.

GEO-2 Excavated areas shall be properly backfilled and compacted. Paved areas disturbed by this project will be repaved or recompacted in such a manner that pipeline connections within adjacent roadways and other disturbed areas are returned to as near the pre-project condition as is feasible.

GEO-3 All exposed, disturbed soil (trenches, stored backfill, etc.) will be sprayed with water or soil binders twice a day or more frequently if fugitive dust is observed migrating from either of the well sites within which the water facilities are being installed.

GEO-4 The length of trench which can be left open at any given time will be limited to that needed to reasonably perform construction activities. This will serve to reduce the amount of backfill stored onsite at any given time.

GEO-5 Should any paleontological resources be encountered during construction of these facilities, earthmoving or grading activities in the immediate area of the finds shall be halted and an onsite inspection should be performed immediately by a qualified paleontologist. Responsibility for making this determination shall be with the City's onsite inspector. The paleontological professional shall assess the find, determine its significance, and make recommendations for appropriate mitigation measures within the guidelines of the California Environmental Quality Act.

Hazards and Hazardous Materials

HAZ-1 All spills or leakage of petroleum products during construction activities will be remediated in compliance with applicable state and local regulations regarding cleanup and disposal of the contaminant released. The contaminated waste will be collected and disposed of at an appropriately licensed disposal or treatment facility. This measure will be incorporated into the SWPPP prepared for the project development.

HAZ-2 All pesticides shall be used and stored in a manner that prevents them from contaminating the underlying groundwater, soils, and watershed. The Applicant shall develop a Hazardous Materials Communication Plan (HCP) that shall meet State Occupational Safety and Health Administration (OSHA) standards. The HCP shall include protocols for and shall classify hazardous materials on the project site and communicate information concerning hazards and appropriate protective measures to employees. All employees shall receive training based on the standards contained in the HCP prior to handling any hazardous materials on site. The HCP will be available at the facility manager's office. Furthermore, all hazardous materials shall be stored in compliance with State and Federal laws.

HAZ-3 All trash generated by the Applicant, including fertilizer containers, spent growth medium, soil amendments, etc. shall be disposed of in accordance with State and Federal law. The Applicant shall periodically (on a monthly basis) inspect the trash disposal area(s) to verify that all trash generated by Project operations is stored within the appropriate trash bin or container, and shall verify that none of the trash bins or containers leak. The Applicant shall repair any leaking trash bins or containers upon discovery of a leak. Furthermore, the Applicant shall be required to remove solid waste periodically (no less than once a month). Solid waste shall be disposed of or recycled at a licensed handling facility.

HAZ-4 The Applicant shall install a water treatment system to treat irrigation water that will allow water to be used again for irrigation. Such water treatment systems typically create concentrated levels of total dissolved solids (TDS) and brine that must be disposed of according to State and Federal law. As such, the Applicant shall collect the brine generated by the water treatment system and it shall be transported and disposed of by a permitted and licensed hazardous materials service provider.

Noise

NOI-1 All construction vehicles and fixed or mobile equipment shall be equipped with properly operating and maintained mufflers.

NOI-2 All employees that will be exposed to noise levels greater than 75 dB over an 8-hour period shall be provided with adequate hearing protection devices to ensure no hearing damage will result from construction activities.

NOI-3 Equipment not in use for five minutes shall be shut off.

NOI-4 Equipment shall be maintained and operated such that loads are secured from rattling or banging.

NOI-5 Construction employees shall be trained in the proper operation and use of equipment consistent with these mitigation measures, including no unnecessary revving of equipment.

NOI-6 The City will require that all construction equipment be operated with mandated noise control equipment (mufflers or silencers). Enforcement will be accomplished by random field inspections by applicant personnel during construction activities.

Transportation

TRAN-1 The construction contractor will provide adequate traffic management resources, as determined by the City of Adelanto. The City shall require a construction traffic management plan for work in public roads that complies with the Work Area Traffic Control Handbook, or other applicable standard, to provide adequate traffic control and safety during excavation activities. At a minimum this plan shall include the following:

a) Methods to minimize the amount of time spent on construction activities;
b) Methods to minimize disruption of vehicle and alternative modes of transport traffic at all times, but particularly during periods of high traffic volumes;
c) Methods to maintain safe traffic flow on local streets affected by construction at all times, including through the use of adequate signage, protective devices, flag persons or police assistance to ensure adequate traffic flow;
d) Identification of alternative routes, if necessary, that can meet the traffic flow requirements of a specific area, including communication (signs, webpages, etc.) with drivers and neighborhoods where construction activities will occur; and
e) Identification of methods or procedures to ensure that at the end of each construction day roadways shall be prepared for continued utilization without any significant roadway hazards remaining.

TRAN-2 The City shall require that all disturbances to public roadways maintained by the City to be repaired in a manner that complies with the Standard Specifications for Public Works Construction (green book) or other applicable City standard design requirements.

Tribal Cultural Resources

TCR-1 The San Manuel Band of Mission Indians Cultural Resources Department (SMBMI) shall be contacted, as detailed in CUL-2, of any pre-contact cultural resources discovered during project implementation, and be provided information regarding the nature of the find, so as to provide Tribal input with regards to significance and treatment. Should the find be deemed significant, as defined by CEQA (as amended, 2015), a cultural resources Monitoring and Treatment Plan shall be created by the archaeologist, in coordination with SMBMI, and all subsequent finds shall be subject to this Plan. This Plan shall allow for a monitor to be present that represents SMBMI for the remainder of the project, should SMBMI elect to place a monitor on-site.

TCR-2 Any and all archaeological/cultural documents created as a part of the project (isolate records, site records, survey reports, testing reports, etc.) shall be supplied to the applicant and Lead Agency for dissemination to SMBMI. The Lead Agency and/or applicant shall, in good faith, consult with SMBMI throughout the life of the project.

Utilities and Service Systems

UTL-1 If recycled water becomes available at the project site, the project shall connect to this system and utilize recycled water for landscape irrigation, and any other feasible uses of recycled water on the project site.

REFERENCES

Adelanto North 2035 Sustainable Plan, August 2014

CRM TECH, "Historical / Archaeological Resources Survey Report, Assessor's Parcel Number 0459-053-53, City of Adelanto" dated February 19, 2020

Giroux & Associates, "Air Quality and GHG Impact Analyses for Adelanto Project for Medical Cannabis Cultivation Development" dated April 20, 2020

Jericho Systems, Inc., "Biological Resources Assessment & Jurisdictional Delineation, Medical Cannabis Cultivation Project" dated February 5, 2020

Southern California Association of Governments (SCAG) 2019 Local Profile for the City of Adelanto

County of San Bernardino General Plan

State Water Resources Control Board, Cannabis Cultivation Policy, Principles and Guidelines for Cannabis Cultivation, Adopted and Approved 2019

Websites

https://www.waterboards.ca.gov/water_issues/programs/cannabis/docs/policy/final_cannabis_policy_with_attach_a.pdf

https://water.ca.gov/-/media/DWR-Website/Web-Pages/Programs/Groundwater-Management/Basin-Prioritization/Files/2018-Sustainable-Groundwater-Management-Act-Basin-Prioritization.pdf

http://www.mojavewater.org/files/25AR1718_Revised.pdf

https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/FTA_Noise_and_Vibration_Manual.pdf

https://www.scag.ca.gov/Documents/Adelanto.pdf

https://www.ci.adelanto.ca.us/214/Water-Sewer

https://percwater.com/project/adelanto/

https://www2.calrecycle.ca.gov/WasteCharacterization/General/Rates

FIGURES



FIGURE 1

Tom Dodson & Associates
Environmental Consultants

Regional Location



FIGURE 2

Tom Dodson & Associates
Environmental Consultants

Site Location

UTILITY PURVEYORS

WATER: ADELANTO WATER DEPARTMENT

760-246-2300
SEWER: ADELANTO WATER DEPARTMENT

760-246-2300
ELECTRIC: SO. CAL. EDISON

800-442-4950
GAS: SOUTHWEST GAS COMPANY

760-241-9321
PHONE: VERIZON
800-772-5153
SCHOOL: ADELANTO ELEMENTARY SCHOOL DISTRICT

ZONING /LAND USE

EXISTING ZONING:	AIRPORT DEVELOPMENT DISTRICT (ADD)
PROPOSED ZONING:	AIRPORT DEVELOPMENT DISTRICT (ADD)
EXISTING LANDUSE:	AIRPORT DEVELOPMENT DISTRICT (ADD)
PROPOSED LANDUSE:	AIRPORT DEVELOPMENT DISTRICT (ADD)

DEVELOPER/OWNER

BASSAM HUSSAIN
SHAYMA KADHIM
333 E. ARROW HWY, UNIT 873
UPLAND, CA 91785

ENGINEER

BLUE ENGINEERING AND CONSULTING, INC
RANCHO CUCAMONGA, CA 91739
ATTN: ANGEL CESAR, P.E.
909-248-6557
ANGEL@BLUECIVILENG.COM

ASSESSORS PARCEL NUMBER

0459-053-53-0-000

LEGAL DESCRIPTION

THE LAND REFERRED TO HEREIN BELOW IS SITUATED IN THE COUNTY OF SAN BERNARDINO, STATE OF CALIFORNIA, AND IS DESCRIBED AS FOLLOWS:

PARCEL NO.3 OF PARCEL MAP 5652, AS PER PLAT RECORDED IN BOOK 55 OF PARCEL MAPS, PAGE 24, RECORDS OF SAN BERNARDINO COUNTY.

BUILDING INFORMATION

TOTAL BUILDING SQUARE FOOTAGE: 160,000 SF

PARKING INFORMATION

PARKING REQUIRED	103
PARKING PROVIDED	110
	(ADA PRKG) 4
LOADING SPACING	REQUIRED (3) 12'X45'
	PROVIDED (3) 12'X45'

SITE

TOTAL SF	363,298 SF (8.34 AC)
BUILDING	160,000 SF (3.67 AC)
LANDSCAPING	99,919 SF (2.29 AC) (27.5%)
ASPHALT	40,700 SF (0.93 AC)
FIRE ACCESS ROAD	62,679 SF (1.44 AC)

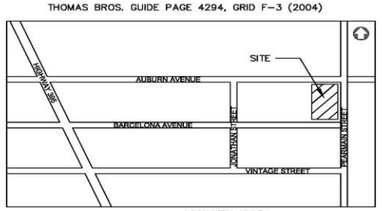
NOTES:

1. NO EXISTING BUILDINGS, UTILITY POLES OR OTHER ABOVE GROUND STRUCTURE EXISTING ON SITE.
2. NO PROPOSED EASEMENTS OR DEDICATIONS OF STREETS OR RIGHT OF WAY ARE BEING PROPOSED.

LEGEND

WATER MAIN
SEWER MAIN
RIGHT OF WAY
CENTER LINE
FLOWLINE
FENCE/WALL REFER TO LANDSCAPE ARCH
PHASE LINE
FIRE ACCESS ROAD

THOMAS BROS. GUIDE PAGE 4294, GRID F-3 (2004)



VICINITY MAP
SCALE 1"=800'
SEC. 1, T.5N,R.6W

PLANS PREPARED BY:
BLUE Engineering & Consulting, Inc
12223 HIGHLAND AVE. #106-594
RANCHO CUCAMONGA, CA 91739
(909)-248-6557
www.bluecivileng.com
UNDER THE SUPERVISION OF: ANGEL CESAR, P.E. 87222 Date

MARK	REVISIONS	ENGR.	APPROV.	DATE

DESIGNED BY_____ DRAWN BY_____ CHECKED BY_____

CITY OF ADELANTO

APPROVED BY: _____ CITY ENGINEER DATE

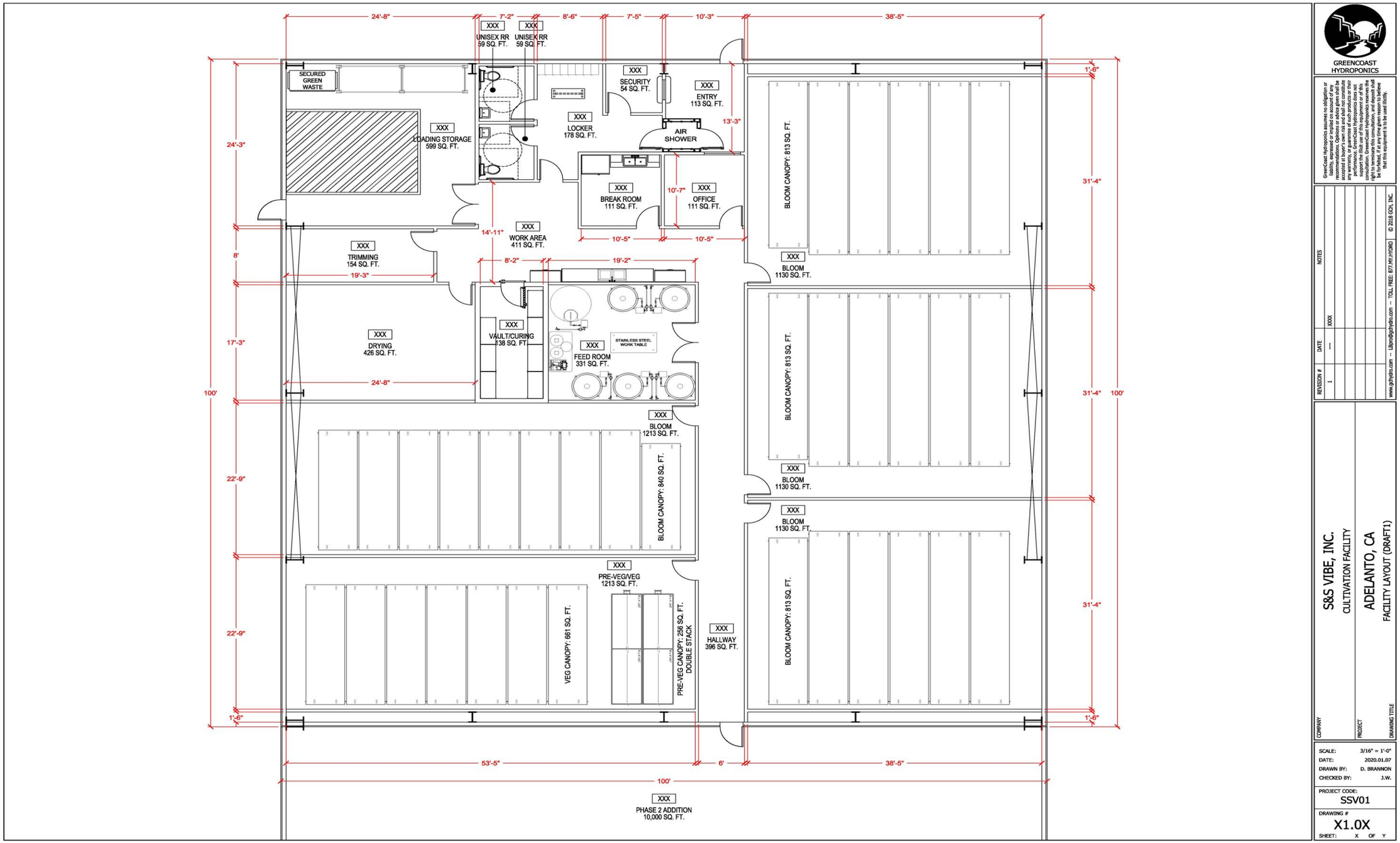
SITE PLAN
THE ADELANTO PROJECT
CANNABIS MEDICAL
CULTIVATION DEVELOPMENT
SCALE = AS NOTED

CUP 19-14
LDP 19-10
SHEET 2 OF 10
J.N. 2019005

FIGURE 3

Tom Dodson & Associates
Environmental Consultants

Site Plan



GREENCOAST HYDROPONICS

GreenCoast Hydroponics assumes no obligation or liability connected or related to the information or recommendations. Opinions or advice given shall be accepted at buyer's own risk and shall not constitute any warranty. If equipment does not perform to buyer's expectations, GreenCoast Hydroponics does not support the illicit use of this equipment or of this equipment in violation of any state or local law. GreenCoast Hydroponics reserves the right to terminate this consultation, and deposit shall be forfeited, if at any time given reason to believe that this equipment is to be used illicitly.

REVISION #	DATE	NOTES
1	---	XXX

www.gchydro.com — LB.pro@gchydro.com — TOLL FREE: 877.MY.HYDRO

© 2018 GCH, INC.

COMPANY: S&S VIBE, INC.
CULTIVATION FACILITY

PROJECT: ADELANTO, CA

DRAWING TITLE: FACILITY LAYOUT (DRAFT1)

SCALE:	3/16" = 1'-0"
DATE:	2020.01.07
DRAWN BY:	D. BRANNON
CHECKED BY:	J.W.
PROJECT CODE:	SSV01
DRAWING #	X1.0X
SHEET:	X OF Y

FIGURE 4

Tom Dodson & Associates
Environmental Consultants

Interior Site Plan

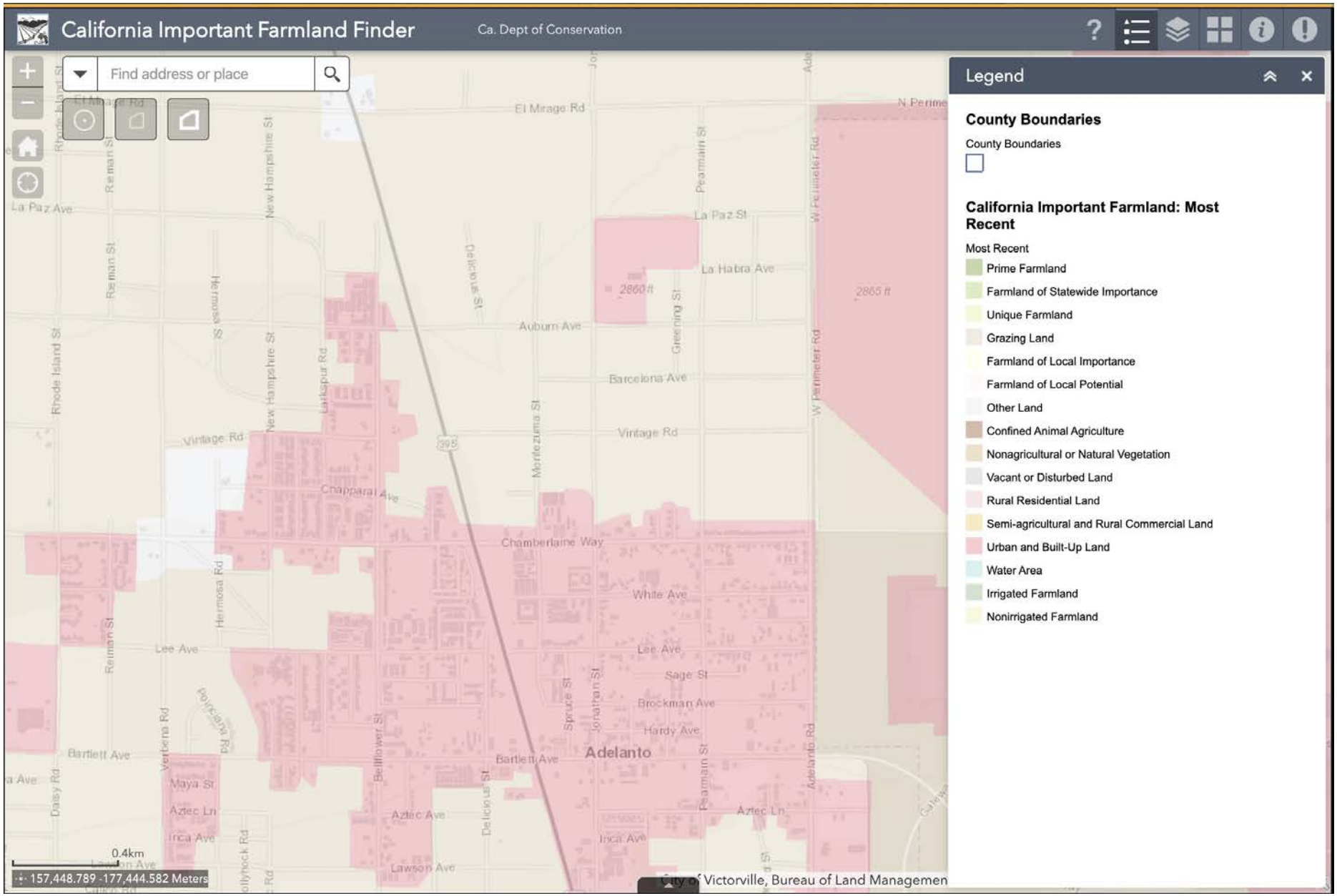


FIGURE II-1

Tom Dodson & Associates
Environmental Consultants

Farmland Map

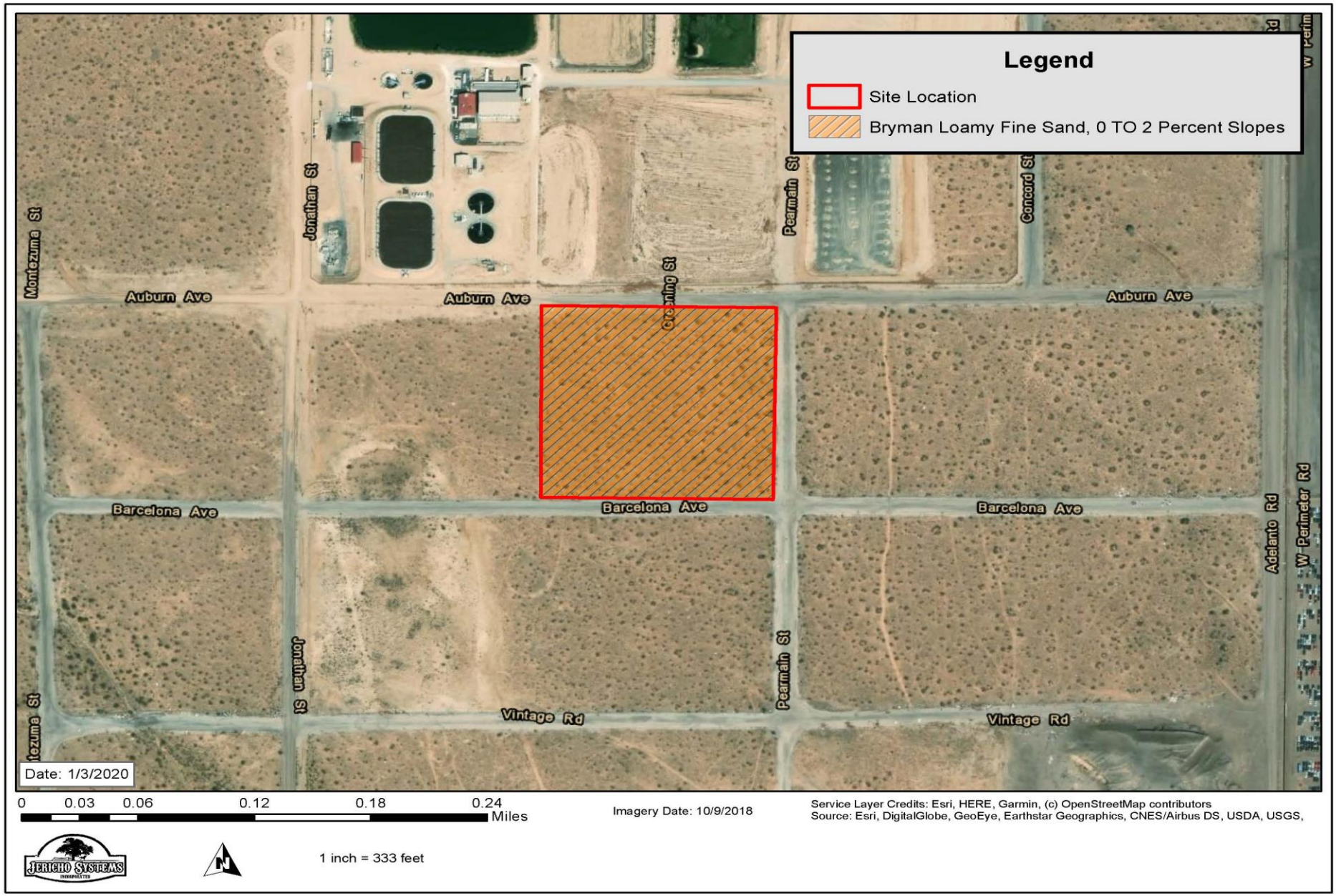


FIGURE IV-1

Tom Dodson & Associates
Environmental Consultants

Soils Map

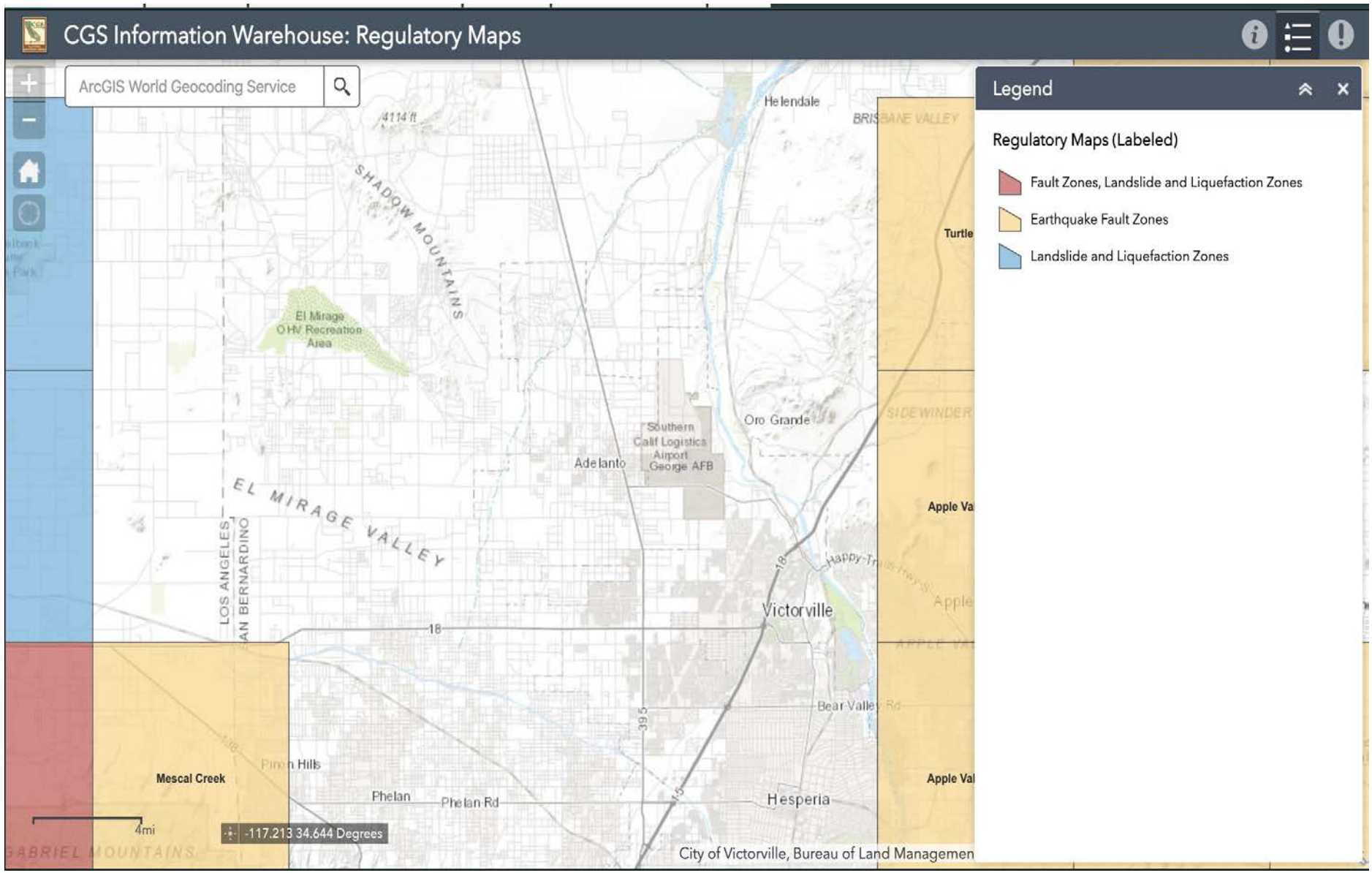


FIGURE VII-1

Tom Dodson & Associates
Environmental Consultants

Alquist Priolo Fault Zones

FIGURE VII-2

San Bernardino County Land Use Plan
GENERAL PLAN
Geologic Hazard Overlays

SCALE 1:115,200

2.5 1.25 0 2.5 5 Miles

Generalized Landslide Susceptibility
- Low to moderate
- Moderate to high
- Mapped, Existing Landslide
- Rockfall/Debris-Flow Hazard Area (Forest Falls Only)

Zone of Suspected Liquefaction Susceptibility
- Zone of Susceptibility
- Cities

Generalized Liquefaction Susceptibility
- Low
- Medium
- High

Earthquake Fault Zones
- Earthquake Fault Zone Boundary
- County Designated Fault Zones
- Detail Quad Map

Map data mgnetry compiled on 1:48,000 scale rectified maps photo-reduced from 7-1/2 minute USGS quads by D.M. Morton, U.S. Geological Survey, 1974 and by S.S. Tan, State Division of Mines and Geology, 1993

Positional accuracy of map data is at best plus or minus 150 feet.

The Zone of Suspected Liquefaction Susceptibility layer compiled by the San Bernardino County Geologist, 2009

Positional accuracy of map data is at best plus or minus 200 feet.

Map data mgnetry compiled on 1:48,000 scale rectified maps photo-reduced from 7-1/2 minute USGS quads by J.E. Kahl and S.E. Carson, 1986.

Positional accuracy of map data is at best plus or minus 150 feet.

Map data compiled on 7-1/2 and 15-minute USGS quadrangle maps by the State of California, Division of Mines and Geology, 1987.

Positional accuracy of map data is at best plus or minus 150 feet.

NOTICE:
Effective January 1, 1994, the name "Special Studies Zones" has been changed to "Earthquake Fault Zones" and Chap. 7.5, Div. 2 of the Public Resources Code has been renamed the "Alquist-Priolo Earthquake Fault Zoning Act"

EHFH C
VICTORVILLE/SAN BERNARDINO



See GHHH C

See EIFI C

See CHDH C

Z:\Projects\WorkFiles\GeoPlan\GeoMaps\GeoGroup_RegionalZ.mxd
Map Date: 03/09/2010

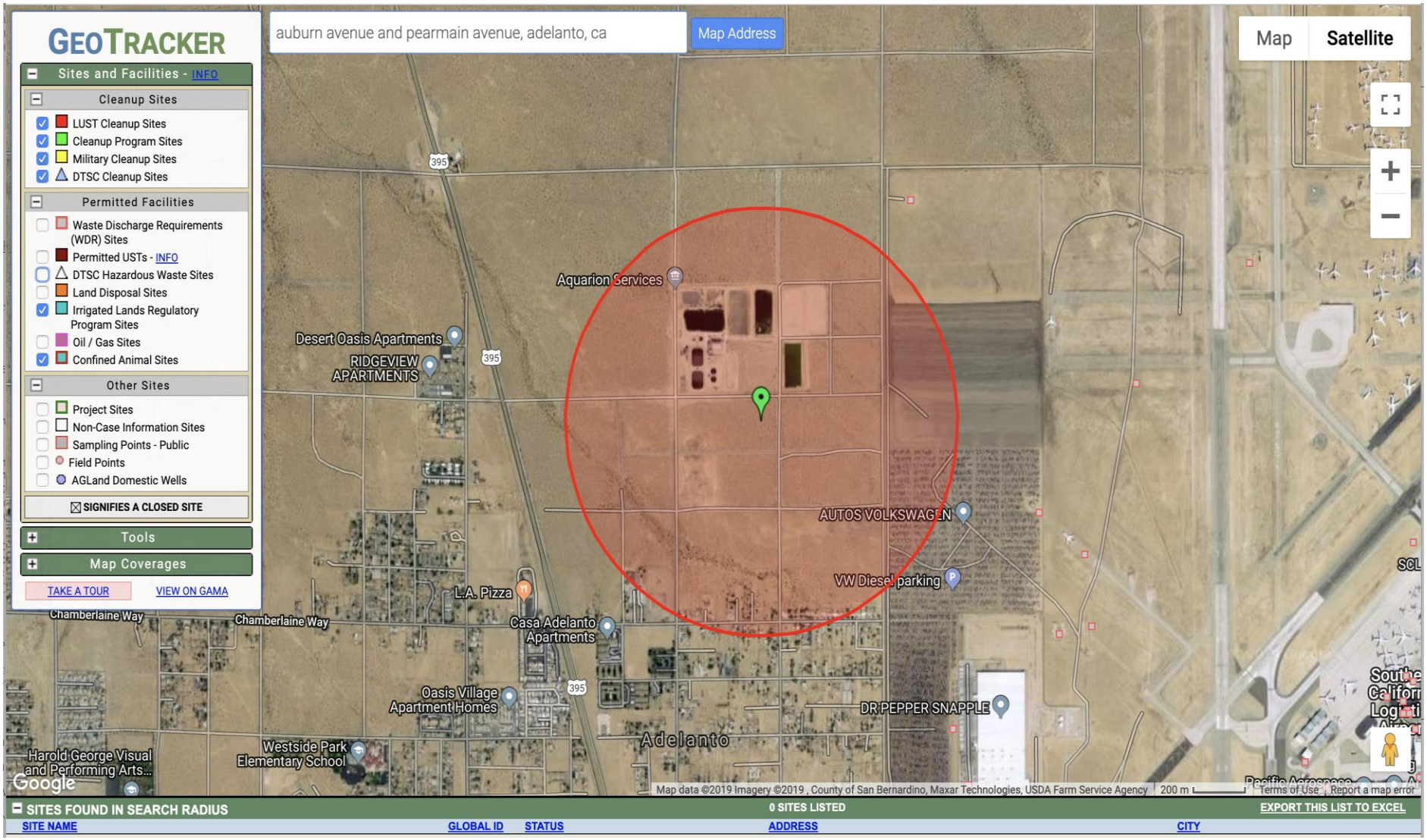


FIGURE IX-1

Tom Dodson & Associates
Environmental Consultants

GeoTracker, page 1

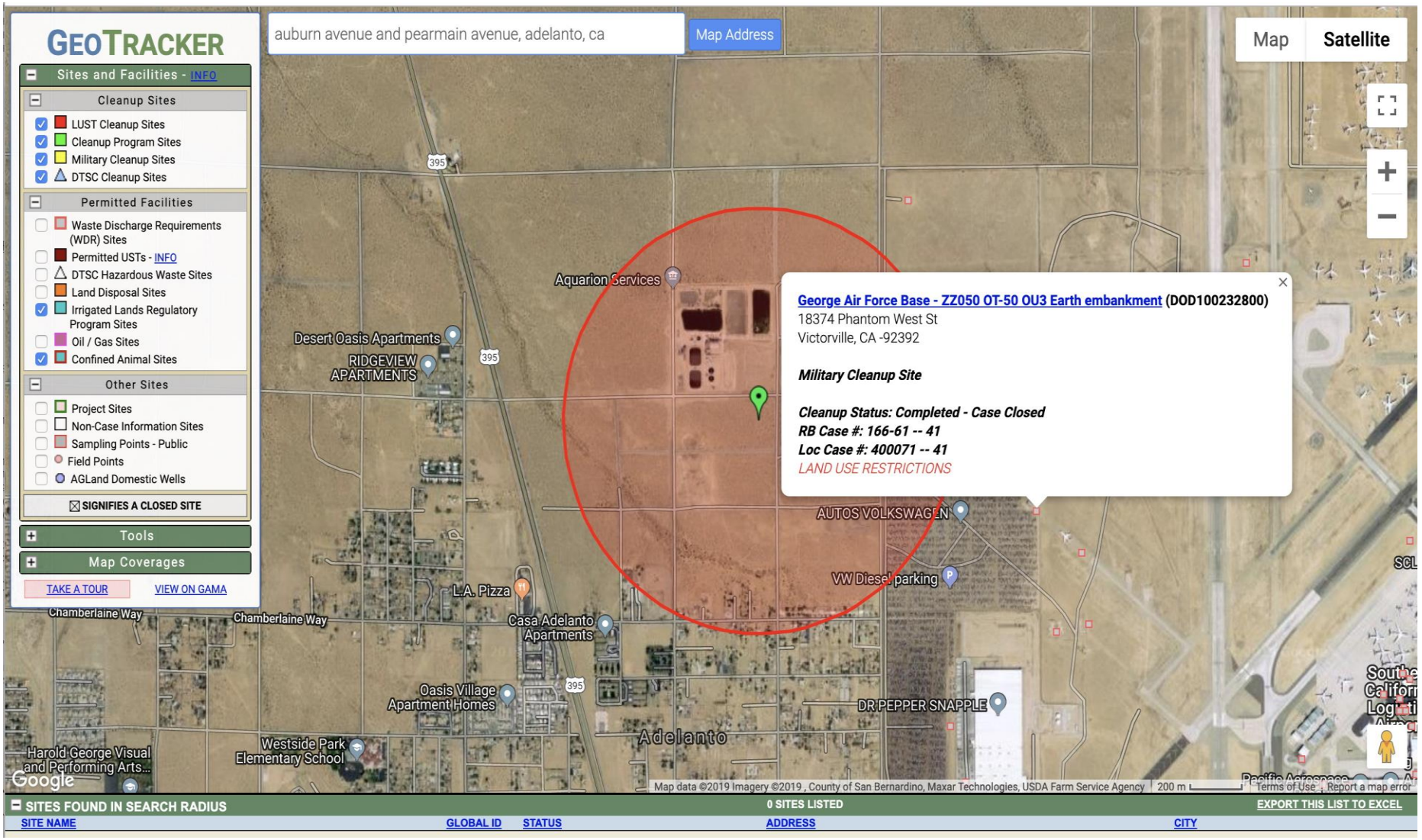
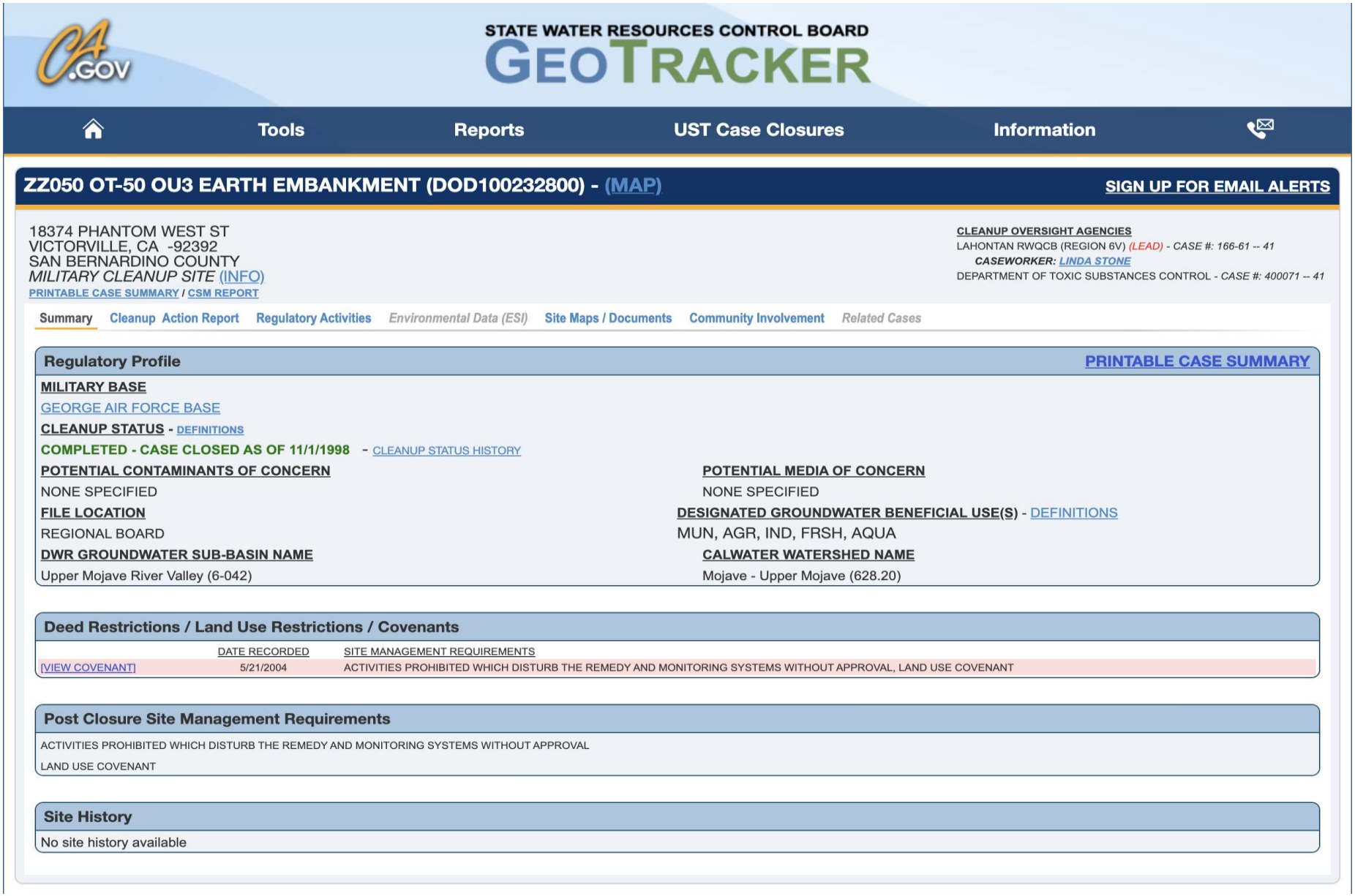

GEOTRACKER
auburn avenue and pearmain avenue, adelanto, ca
Map Address
Map
Satellite
Sites and Facilities - INFO
Cleanup Sites
LUST Cleanup Sites
Cleanup Program Sites
Military Cleanup Sites
DTSC Cleanup Sites
Permitted Facilities
Waste Discharge Requirements (WDR) Sites
Permitted USTs - INFO
DTSC Hazardous Waste Sites
Land Disposal Sites
Irrigated Lands Regulatory Program Sites
Oil / Gas Sites
Confined Animal Sites
Other Sites
Project Sites
Non-Case Information Sites
Sampling Points - Public
Field Points
AGLand Domestic Wells
SIGNIFIES A CLOSED SITE
Tools
Map Coverages
TAKE A TOUR
VIEW ON GAMA
George Air Force Base - ZZ050 OT-50 OU3 Earth embankment (DOD100232800)
18374 Phantom West St
Victorville, CA -92392
Military Cleanup Site
Cleanup Status: Completed - Case Closed
RB Case #: 166-61 -- 41
Loc Case #: 400071 -- 41
LAND USE RESTRICTIONS
Aquarion Services
Desert Oasis Apartments
RIDGEVIEW APARTMENTS
AUTOS VOLKSWAGEN
VW Diesel parking
L.A. Pizza
Casa Adelanto Apartments
Oasis Village Apartment Homes
DR PEPPER SNAPPLE
Adelanto
Westside Park Elementary School
Harold George Visual and Performing Arts...
Chamberlaine Way
Chamberlaine Way
395
Google
Map data ©2019 Imagery ©2019 , County of San Bernardino, Maxar Technologies, USDA Farm Service Agency
200 m
Terms of Use
Report a map error
SITES FOUND IN SEARCH RADIUS
0 SITES LISTED
EXPORT THIS LIST TO EXCEL
SITE NAME
GLOBAL ID
STATUS
ADDRESS
CITY

FIGURE IX-2



STATE WATER RESOURCES CONTROL BOARD

GEOTRACKER

Tools | Reports | UST Case Closures | Information

ZZ050 OT-50 OU3 EARTH EMBANKMENT (DOD100232800) - (MAP)

SIGN UP FOR EMAIL ALERTS

18374 PHANTOM WEST ST
VICTORVILLE, CA -92392
SAN BERNARDINO COUNTY
MILITARY CLEANUP SITE (INFO)
PRINTABLE CASE SUMMARY / CSM REPORT

CLEANUP OVERSIGHT AGENCIES
LAHONTAN RWQCB (REGION 6V) *(LEAD)* - *CASE #: 166-61 -- 41*
CASEWORKER: *LINDA STONE*
DEPARTMENT OF TOXIC SUBSTANCES CONTROL - *CASE #: 400071 -- 41*

Summary | Cleanup Action Report | Regulatory Activities | Environmental Data (ESI) | Site Maps / Documents | Community Involvement | Related Cases

Regulatory Profile — PRINTABLE CASE SUMMARY

MILITARY BASE
GEORGE AIR FORCE BASE

CLEANUP STATUS - DEFINITIONS
COMPLETED - CASE CLOSED AS OF 11/1/1998 - CLEANUP STATUS HISTORY

POTENTIAL CONTAMINANTS OF CONCERN
NONE SPECIFIED

POTENTIAL MEDIA OF CONCERN
NONE SPECIFIED

FILE LOCATION
REGIONAL BOARD

DESIGNATED GROUNDWATER BENEFICIAL USE(S) - DEFINITIONS
MUN, AGR, IND, FRSH, AQUA

DWR GROUNDWATER SUB-BASIN NAME
Upper Mojave River Valley (6-042)

CALWATER WATERSHED NAME
Mojave - Upper Mojave (628.20)

Deed Restrictions / Land Use Restrictions / Covenants

	DATE RECORDED	SITE MANAGEMENT REQUIREMENTS
[VIEW COVENANT]	5/21/2004	ACTIVITIES PROHIBITED WHICH DISTURB THE REMEDY AND MONITORING SYSTEMS WITHOUT APPROVAL, LAND USE COVENANT

Post Closure Site Management Requirements

ACTIVITIES PROHIBITED WHICH DISTURB THE REMEDY AND MONITORING SYSTEMS WITHOUT APPROVAL

LAND USE COVENANT

Site History

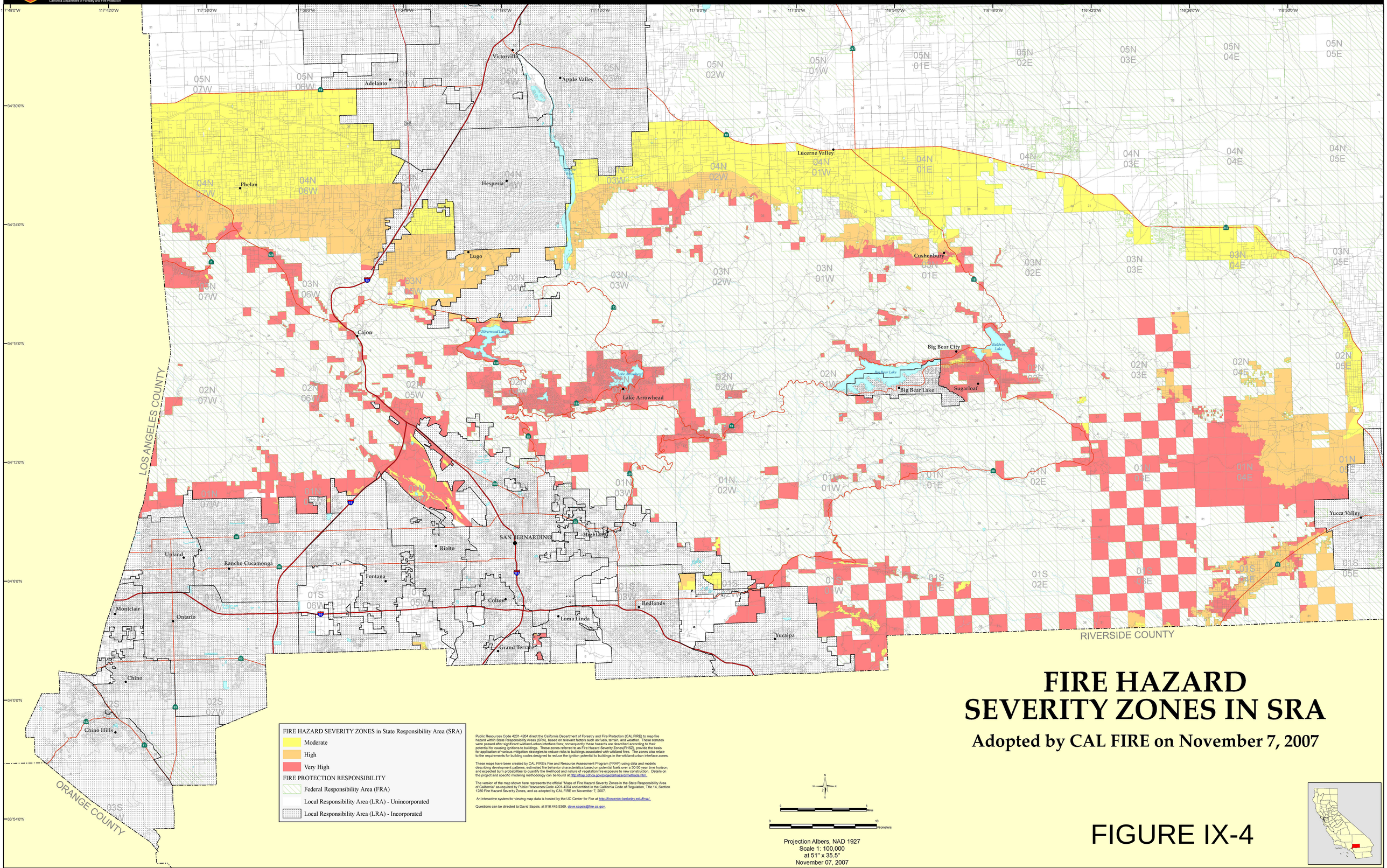
No site history available

FIGURE IX-3

SW San Bernardino County

CAL FIRE SINCE 1885

FRAP
Fire and Resource Assessment Program
California Department of Forestry and Fire Protection



FIRE HAZARD SEVERITY ZONES in State Responsibility Area (SRA)

- Moderate
- High
- Very High

FIRE PROTECTION RESPONSIBILITY

- Federal Responsibility Area (FRA)
- Local Responsibility Area (LRA) - Unincorporated
- Local Responsibility Area (LRA) - Incorporated

Public Resources Code 4201-4204 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map fire hazard within State Responsibility Areas (SRA), based on relevant factors such as fuels, terrain, and weather. These statutes were passed after significant wildland-urban interface fires, consequently these hazards are described according to their potential for causing ignitions to buildings. These zones referred to as Fire Hazard Severity Zones(FHSZ), provide the basis for application of various mitigation strategies to reduce risks to buildings associated with wildland fires. The zones also relate to the requirements for building codes designed to reduce the ignition potential to buildings in the wildland-urban interface zones.

These maps have been created by CAL FIRE's Fire and Resource Assessment Program (FRAP) using data and models describing development patterns, estimated fire behavior characteristics based on potential fuels over a 30-50 year time horizon, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure to new construction. Details on the project and specific modeling methodology can be found at http://frap.cdf.ca.gov/projects/hazard/methods.htm.

The version of the map shown here represents the official "Maps of Fire Hazard Severity Zones in the State Responsibility Area of California" as required by Public Resources Code 4201-4204 and entitled in the California Code of Regulation, Title 14, Section 1280 Fire Hazard Severity Zones, and as adopted by CAL FIRE on November 7, 2007.

An interactive system for viewing map data is hosted by the UC Center for Fire at http://firecenter.berkeley.edu/frap/.

Questions can be directed to David Sapsis, at 916.445.5369, dave.sapsis@fire.ca.gov.

Projection Albers, NAD 1927
Scale 1: 100,000
at 51" x 35.5"
November 07, 2007

FIRE HAZARD SEVERITY ZONES IN SRA

Adopted by CAL FIRE on November 7, 2007

FIGURE IX-4

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Obtain FRAP maps, data, metadata and publications on the Internet at http://frap.cdf.ca.gov
For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

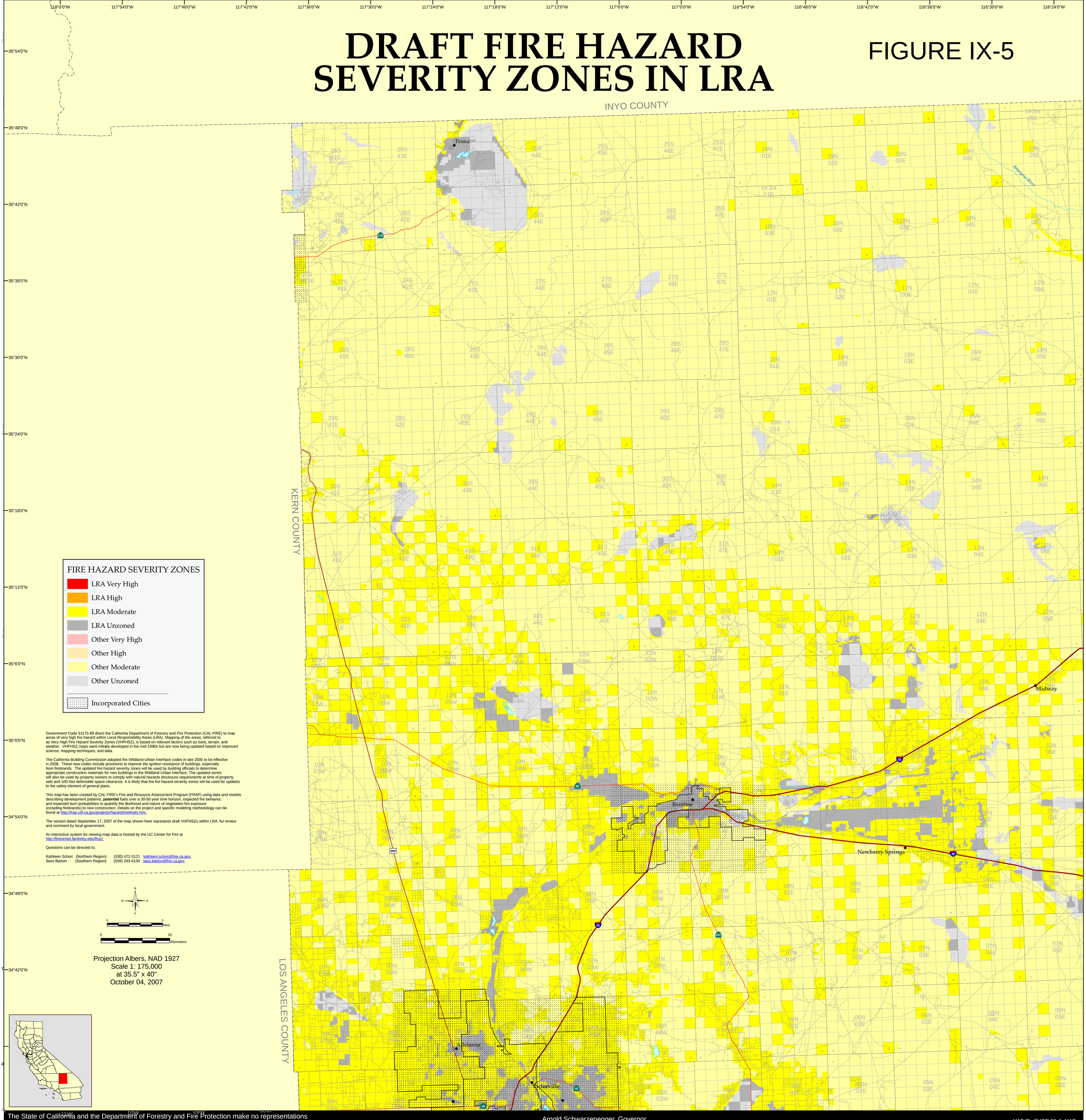
MAP ID: FHSZS_MAP

DATA SOURCES
CAL FIRE Fire Hazard Severity Zones (FHSZS06_3)
CAL FIRE State Responsibility Areas (SRA05_5)
CAL FIRE Incorporated Cities (Incorp07_3)
PLSS (1:100,000 USGS, Land Grants with CAL FIRE grid)

NW San Bernardino County

DRAFT FIRE HAZARD SEVERITY ZONES IN LRA

FIGURE IX-5



FIRE HAZARD SEVERITY ZONES

- LRA Very High
- LRA High
- LRA Moderate
- LRA Unzoned
- Other Very High
- Other High
- Other Moderate
- Other Unzoned
- Incorporated Cities

Government Code 51175-89 direct the California Department of Forestry and Fire Protection (CAL FIRE) to map areas of very high fire hazard within Local Responsibility Areas (LRA). Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on relevant factors such as fuels, terrain, and weather. VHFHSZ maps were initially developed in the mid-1990s but are now being updated based on improved science, mapping techniques, and data.

The California Building Commission adopted the Wildland-Urban Interface codes in late 2005 to be effective in 2008. These new codes include provisions to improve the ignition resistance of buildings, especially from firebrands. The updated fire hazard severity zones will be used by building officials to determine appropriate construction materials for new buildings in the Wildland-Urban Interface. The updated zones will also be used by property owners to comply with natural hazards disclosure requirements at time of property sale and 100 foot defensible space clearance. It is likely that the fire hazard severity zones will be used for updates to the safety element of general plans.

This map has been created by CAL FIRE's Fire and Resource Assessment Program (FRAP) using data and models describing development patterns, **potential** fuels over a 30-50 year time horizon, expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure (including firebrands) to new construction. Details on the project and specific modeling methodology can be found at http://frap.cdf.ca.gov/projects/hazard/methods.htm.

The version dated September 17, 2007 of the map shown here represents draft VHFHSZs within LRA, for review and comment by local government.

An interactive system for viewing map data is hosted by the UC Center for Fire at http://firecenter.berkeley.edu/fhsz/

Questions can be directed to;

Kathleen Schori (Northern Region) (530) 472-3121 kathleen.schori@fire.ca.gov,
Sass Barton (Southern Region) (559) 243-4130 sass.barton@fire.ca.gov,

N W E S

0 5 Miles

0 10 Kilometers

Projection Albers, NAD 1927
Scale 1: 175,000
at 35.5" x 40"
October 04, 2007

The State of California and the Department of Forestry and Fire Protection make no representations or warranties regarding the accuracy of data or maps. Neither the State nor the Department shall be liable under any circumstances for any direct, special, incidental, or consequential damages with respect to any claim by any user or third party on account of, or arising from, the use of data or maps.

Obtain FRAP maps, data, metadata and publications on the Internet at http://frap.cdf.ca.gov
For more information, contact CAL FIRE-FRAP, PO Box 944246, Sacramento, CA 94244-2460, (916) 327-3939.

Arnold Schwarzenegger, Governor,
State of California
Mike Chrisman, Secretary for Resources,
The Resources Agency
Ruben Grijalva, Director,
Department of Forestry and Fire Protection

MAP ID: FHSZL06_1_MAP
DATA SOURCES
CAL FIRE Fire Hazard Severity Zones (FHSZL06_1)
CAL FIRE State Responsibility Areas (SRA05_4)
CAL FIRE Incorporated Cities (Incorp07_2)
PLSS (1:100,000 USGS, Land Grants with CAL FIRE grid)

See EH21 B

See EH28 B

See EH30 B

See FH05 B

R6W R5W

T6N T5N

AR4

AR3

FP1

FP2

FP3

FS2

Adelanto

ADELANTO

ADELANTO CITY

VICTORVILLE

SOUTHERN CALIFORNIA LOGISTICS AIRPORT

Mountain View

VICTORVILLE CITY

FIGURE X-1

Dam Inundation

- Area of Inundation
- Limit of Inundation
- Dam
- Limit of Study

Map data compiled on 7 and 1/2 and 15 minute USGS quadrangle maps by various agencies, 1974.

Positional accuracy of map data is at best plus or minus 200 feet

Flood Plain Safety (FP) Overlay District

- FP1 (Zone A - Inside 100 Year Flood Plain)
- FP2 (Zone X - Inside 500 Year Flood Plain)
- FP3 (Local Flood Data)

Map data for FP1 and FP2 zones from DFIRM digital data issued by the Federal Emergency Management Agency. FP3 data compiled from local flood sources.

Positional accuracy of local flood data is plus or minus 150 feet.

Noise Hazard (NH) Overlay District

- Noise Contour in LDN
- Runway Location

The Noise Hazard (NH) Overlay applies to noise contours 65 LDN or greater.

Map data compiled on 1:100,000 scale USGS quadrangle maps by J. J. Warthouton and Associates, Inc., 1988.

Positional accuracy of map data is at best plus or minus 750 feet

San Bernardino County Land Use Plan
GENERAL PLAN
Hazard Overlays

SCALE 1:14,400

1,250 625 0 1,250 2,500 3,750 5,000 Feet

0.5 0.25 0 0.5 1 Miles

Fire Safety (FS) Overlay District

- Fire Safety Boundary
- FS1 Fire Safety Area 1
- FS2 Fire Safety Area 2

Map data compiled on 7-1/2 and 15-minute USGS quadrangle maps by the California Department of Forestry (CDF).

Positional accuracy of map data is at best plus or minus 750 feet.

Airport Safety Review

- AR3 (Airport Safety Review Area 3)
- AR4 (Airport Safety Review Area 4)

AR4 map data compiled on 1:100,000 scale USGS quadrangle maps by the United States Air Force.

Positional accuracy of map data is at best plus or minus 750 feet.

SAN BERNARDINO COUNTY MAP LOCATION

EH29 B
Adelanto

Z:\Projects\Work\Res\GenPlan\Hazard\Maps\Hazard_Detail2.mxd
Plot Date: 10/19/2010



FIGURE X-2

Tom Dodson & Associates
Environmental Consultants

FEMA Map

City of ADELANTO

FIGURE XI-1
General Plan Land Use & Zoning Map

Oleander St
Jimson St
Purple Sage St
Torosa St
Desert Flower Rd
Hote Rd
Sonoma Rd
Dayton St
Colusa Rd
Calana Rd
Calleja Ave
Egert Rd
Desoto Ave
Coronado Ave
Nichols Rd
Avalon Ave
El Mirage Rd
La Paz Ave
Auburn Ave
Vintage Rd
Chamberlaine Way
Lee Avenue
Bartlett Ave
Lawson Ave
Air Expressway
Joshua Ave
Yucca Rd
Violet Ave
Rancho Rd
Primrose Ave
Cassia Rd
Pansy Ave
Holly Rd
Poppy Rd
Cactus Rd
Lupin Rd
Mojave Dr
Joshua St
Victor St
Villa St
Seneca Rd
Begonia Rd
Palmdale Rd

Redondo Rd
Mesa Linda Rd
Aguadera Rd
Emerald Rd
Diamond Rd
Cobalt Rd
Brucite Rd
Amethyst Rd

Lessing Ave
Tumbleweed Rd
Middleton Rd
Barbet Rd
Caughlin Rd
Shasta Rd
Vinton Rd
Trinidad Rd
Richardson Rd
El Privilegio St
Beaver Rd
Otter Ave
Koala Rd
Muskrat Ave
Raccoon Ave
Stevens St
Aster Rd
Daisy Rd
Verbena Rd
Lilac Rd
Bellflower St
Delicious ST
Jonathan St
Pearmain St
Adelanto Rd
U.S. Hwy 395

Cannabis

Dispensary Zones

* Zones for cannabis related uses

LAND USE AND ZONING DISTRICTS

* Airport Development District (ADD)
Airport Park (AP)
Business Park (BP)
Commercial (C)
Desert Living (DL-5) (1 du/5 ac)
Desert Living (DL-9) (1 du/9 ac)
Desert Living (DL-2.5) (1 du/2.5 ac)
* Light Manufacturing (LM)
* Manufacturing/Industrial (MI)
Mixed Use (MU) (12 - 18 du/ac)
Open Space (OS)
Public Utilities (PU)
Medium Density Residential (R-M12)
Single Family Residential (R-S1)
Single Family Residential (R-S5)
Single Family Residential (R-1)
High Density Residential (R3-30)
Medium Density Residential (R3-8)

1 0.5 0 1 Miles

Adelanto North 2035
Sustainable by Design

N W E S

City of Adelanto
General Plan Zoning Map (1994 General Plan Update)
& (2014 North Adelanto Sustainable Community Program)
Adelanto Geographical Information Systems
11600 Air Expressway
Adelanto, CA 92301
Zoneing Layer Updated: January 18, 2018
http://ci.adelanto.ca.us

TABLE VIII-2
LAND USE COMPATIBILITY GUIDELINES RELATED TO NOISE EXPOSURE

Land Use	CNEL 65-70	CNEL 70-75	CNEL 75 & Above
RESIDENTIAL			
Residential, other than mobile homes/transient lodging	NLR required[1]	NLR required	Incompatible
Mobile home parks	Incompatible	Incompatible	Incompatible
Transient lodgings	NLR required[1]	NLR required[1]	Incompatible
PUBLIC USE			
Schools, hospitals, and nursing homes	NLR required[1]	Incompatible	Incompatible
Churches, auditoriums, and concert halls	NLR required[1]	NLR required	Incompatible
Governmental services	Compatible	NLR required	NLR required
Transportation	Compatible	Compatible[2]	Compatible[2]
Parking	Compatible	Compatible[2]	Compatible[2]
COMMERCIAL USE			
Offices, business and professional	Compatible	NLR required	NLR required
Wholesale & retail-building materials, hardware, & farm equipment	Compatible	Compatible[2]	compatible[2]
Retail trade - general	Compatible	NLR required	NLR required
Utilities	Compatible	Compatible[2]	Compatible
Communication	Compatible	NLR required[1]	NLR required
MANUFACTURING AND PRODUCTION			
Manufacturing, general	Compatible	Compatible[2]	Compatible[2]
Photographic and optical	Compatible	NLR required	NLR required
Agriculture (except livestock) & forestry	Compatible	Compatible	Compatible
Livestock farming and breeding	Compatible	Compatible	Incompatible
Mining and fishing, resource production and extraction	Compatible	Compatible	Compatible
RECREATIONAL			
Outdoor sports arenas & spectator sports	Compatible	Compatible	Incompatible
Outdoor music shells, amphitheaters	Incompatible	Incompatible	Incompatible
Nature exhibits and zoos	Compatible	Incompatible	Incompatible
Amusements, parks, resorts, and camps	Compatible	Compatible	Incompatible
Golf courses, riding stables, & water recreation	Compatible	Compatible	Incompatible

CNEL: California Noise Equivalency Level in decibels.
COMPATIBLE: Generally, no special noise attenuating materials are required to achieve an interior noise level of CNEL 45 in habitable spaces, or the activity would not be subject to a significant adverse effect to the outdoor noise level.
NLR: Noise Level Reduction. NLR is used to denote the total amount of noise transmission loss in decibels required to reduce an exterior noise level in habitable interior spaces to DNL(CNEL) 45.
INCOMPATIBLE: Generally, the land use is considered to be incompatible with outdoor noise exposure, even if special attenuating materials were to be used in the construction of the building.

1 The land use is generally incompatible and should only be permitted in areas of infill in existing neighborhoods or where the community determines that the use must be allowed.
2 NLR required in offices or other areas with noise sensitive activities.

Source: Derived from the US Department of Transportation, Federal Aviation Administration, Federal Aviation Regulations (FAR) Part 150, "Airport Noise Compatibility Planning", Code of Federal Regulations, Title 14, Chapter I, Subchapter I Part 150, Table 1, (January 18, 1985, revised October 25, 1989).

FIGURE XII-1

Tom Dodson & Associates
Environmental Consultants

Land Use Compatibility Guidelines Related to Noise Exposure

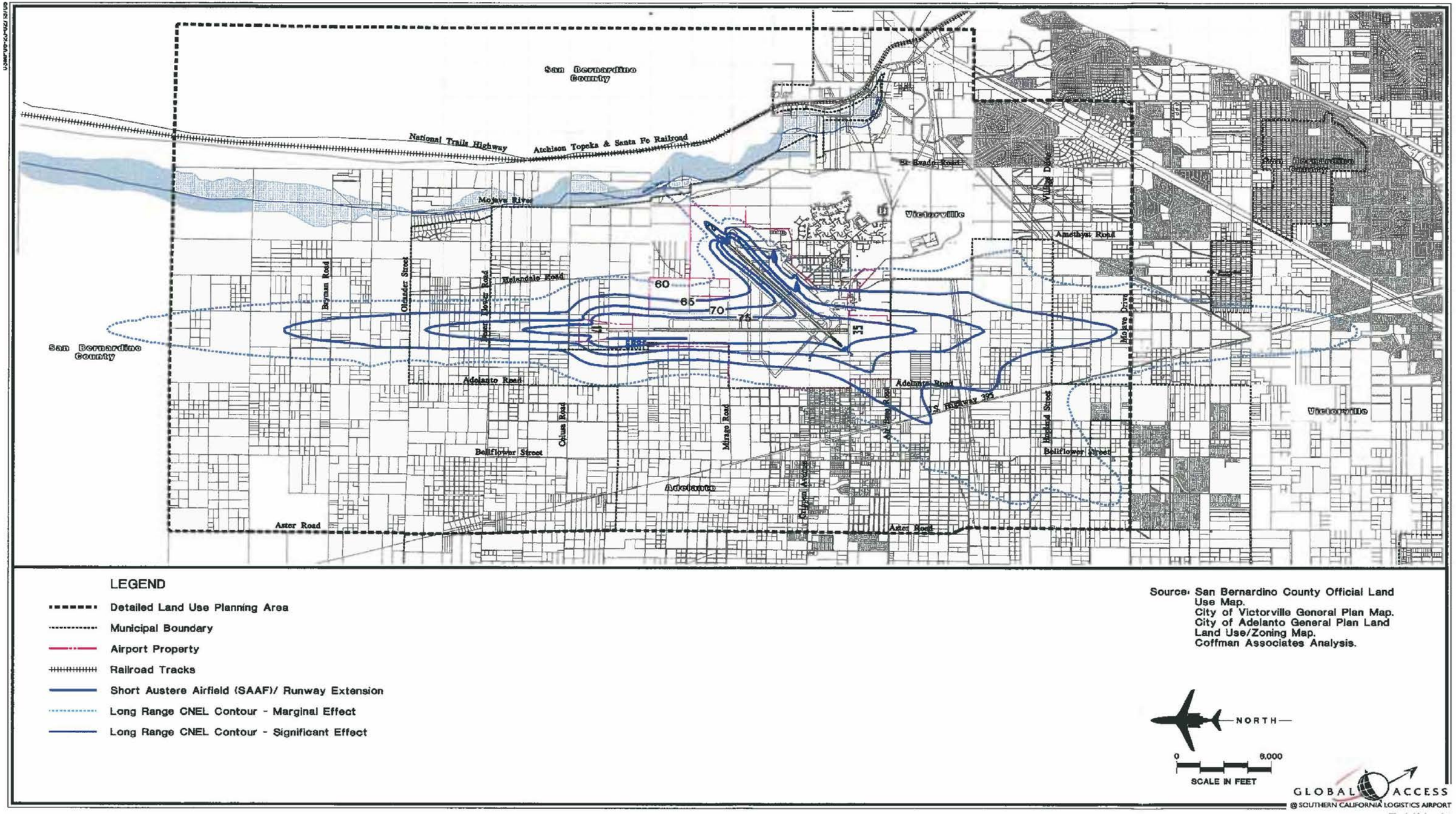


FIGURE XII-2

Tom Dodson & Associates
Environmental Consultants

Southern California Logistics Airport Long-Range Noise Contours

APPENDIX 1

AIR QUALITY and GHG IMPACT ANALYSES

AD-155
ADELANTO PROJECT FOR MEDICAL CANNABIS CULTIVATION DEVELOPMENT

ADELANTO, CALIFORNIA

Prepared by:

Giroux & Associates
1800 E Garry St., #205
Santa Ana, CA 92705

Prepared for:

Tom Dodson & Associates
Attn: Kaitlyn Dodson
PO Box 2307
San Bernardino, CA 92406

Date:

April 20, 2020

Project No.: P20-001 A

ATMOSPHERIC SETTING

The climate of the Victor Valley, technically called an interior valley subclimate of Southern California's Mediterranean-type climate, is characterized by hot summers, mild winters, infrequent rainfall, moderate afternoon breezes, and generally fair weather. The clouds and fog that form along the Southern California coastline rarely extend across the mountains to Victorville and surrounding high desert communities. The most important local weather pattern is associated with the funneling of the daily onshore sea breeze through El Cajon Pass into the upper desert to the northeast of the heavily developed portions of the Los Angeles Basin. This daily airflow brings polluted air into the area late in the afternoon from late spring to early fall. This transport pattern creates both unhealthful air quality as well as destroying the scenic vistas of the mountains surrounding the Victor Valley.

The low annual humidity, moderate temperature swings, very low rainfall and frequent breezy conditions are typical of California's "Upper Desert" subclimate. Most years do not see temperatures drop below about 20°F or above about 105°F. Occasionally, however, there are some very hot temperatures over 105°F with a record high of 113°F in 1995, and some colder temps down to a record low of -1°F in December 1949.

The Victor Valley is in a transition area between the semi-arid conditions of the Los Angeles Basin and the completely arid portions of the Mojave Desert. The Valley's location in the "rainshadow" of the San Gabriel Mountains further enhances its dryness. Rainfall averages around 6 inches per year, with light to moderate rain falling on only 10 days per year. Because of Southern California's location on the edge of the mid-latitude storm track, a shift in the jet stream aloft of a few hundred miles north or south can mean the difference between a year with twice the annual average rainfall and one with drought conditions where less than one-half of the normal rainfall is observed. The project area may occasionally experience a light winter snowfall (1-2 inches per year), but temperatures do not remain cold enough for the snow to stay on the ground for very long.

Winds blow primarily from south to north and from west to east in response to the regional pattern of airflow from the cool ocean to the heated interior. A large portion of the airflow across the proposed project area therefore has its origin in more developed areas of the Los Angeles Basin. Over 50 percent of all airflow derives from a narrow sector from south through west. These winds are moderately strong, averaging from 8-12 mph, but become light and variable at night with about 10 percent of all hours almost complete calm. Afternoon winds may, at times, exceed 20 mph and begin to pick up fine dust and other loose material.

The wind distribution is an important atmospheric parameter because it controls both the initial rate of pollutant dispersal near the source as well as the ultimate regional trajectory of air pollution. These prevailing winds provide a vehicle for visible smog to be transported from the South Coast Air Basin through the mountain passes to the Mojave Desert Air Basin (MDAB). The rapid daytime heating of the lower air leads to convective activity. This exchange of upper air tends to accelerate surface winds during the warm part of the day when convection is at a maximum. During the winter, the rapid cooling of the surface layers at night retards this exchange of momentum which often results in calm winds.

In addition to winds which govern the horizontal dispersion of locally generated emissions, vertical temperature structure controls the depth through which pollutants can be mixed. The strong surface heating by day in the Mojave Desert usually creates a vertical temperature distribution that decreases rapidly with height (unstable). At night, especially in winter, cool air settles in low-lying areas and forms shallow radiation-induced temperature inversions (stable) that may temporarily restrict the dispersion of low-level pollutant emissions. Such inversions "burn off" rapidly after sunrise. The elevated subsidence/marine inversions that create major air quality problems in coastal environments are rarely observed in the desert. When they do form, their bases are from 6 - 8,000 feet mean sea level and thus do not impede vertical dispersion. The low-level radiation inversions, however, play an important role in limiting the dispersive capacity of the local airshed from late evening to the next morning. Because they burn off rapidly in the morning, their importance to the dispersion of air contaminants is limited to localized effects.

AIR QUALITY SETTING

AMBIENT AIR QUALITY STANDARDS (AAQS)

In order to gauge the significance of the air quality impacts of the proposed project, those impacts, together with existing background air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect the public health and welfare. They are designed to protect those people most susceptible to further respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise, called "sensitive receptors." Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic exposure to ozone (the primary ingredient in photochemical smog) may lead to adverse respiratory health even at concentrations close to the ambient standard.

National AAQS were established in 1971 for six pollution species with states retaining the option to add other pollutants, require more stringent compliance, or to include different exposure periods. The initial attainment deadline of 1977 was extended several times in air quality problem areas like Southern California. In 2003, the Environmental Protection Agency (EPA) adopted a rule, which extended and established a new attainment deadline for ozone for the year 2021. Because the State of California had established AAQS several years before the federal action and because of unique air quality problems introduced by the restrictive dispersion meteorology, there is considerable difference between state and national clean air standards. Those standards currently in effect in California are shown in Table 1. Sources and health effects of various pollutants are shown in Table 2.

The Federal Clean Air Act Amendments (CAAA) of 1990 required that the U.S. Environmental Protection Agency (EPA) review all national AAQS in light of currently known health effects. EPA was charged with modifying existing standards or promulgating new ones where appropriate. EPA subsequently developed standards for chronic ozone exposure (8+ hours per day) and for very small diameter particulate matter (called "PM-2.5"). New national AAQS were adopted in 1997 for these pollutants.

Planning and enforcement of the federal standards for PM-2.5 and for ozone (8-hour) were challenged by trucking and manufacturing organizations. In a unanimous decision, the U.S. Supreme Court ruled that EPA did not require specific congressional authorization to adopt national clean air standards. The Court also ruled that health-based standards did not require preparation of a cost-benefit analysis. The Court did find, however, that there was some inconsistency between existing and "new" standards in their required attainment schedules. Such attainment-planning schedule inconsistencies centered mainly on the 8-hour ozone standard. EPA subsequently agreed to downgrade the attainment designation for a large number of communities to “non-attainment” for the 8-hour ozone standard.

Table 1

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 …

Table 1 (continued)

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.

For more information please call ARB-PIO at (916) 322-2990 **California Air Resources Board (5/4/16)**

Table 2
Health Effects of Major Criteria Pollutants

Pollutants	Sources	Primary Effects
Carbon Monoxide (CO)	• Incomplete combustion of fuels and other carbon-containing substances, such as motor exhaust. • Natural events, such as decomposition of organic matter.	• Reduced tolerance for exercise. • Impairment of mental function. • Impairment of fetal development. • Death at high levels of exposure. • Aggravation of some heart diseases (angina).
Nitrogen Dioxide (NO_2)	• Motor vehicle exhaust. • High temperature stationary combustion. • Atmospheric reactions.	• Aggravation of respiratory illness. • Reduced visibility. • Reduced plant growth. • Formation of acid rain.
Ozone (O_3)	• Atmospheric reaction of organic gases with nitrogen oxides in sunlight.	• Aggravation of respiratory and cardiovascular diseases. • Irritation of eyes. • Impairment of cardiopulmonary function. • Plant leaf injury.
Lead (Pb)	• Contaminated soil.	• Impairment of blood function and nerve construction. • Behavioral and hearing problems in children.
Respirable Particulate Matter (PM-10)	• Stationary combustion of solid fuels. • Construction activities. • Industrial processes. • Atmospheric chemical reactions.	• Reduced lung function. • Aggravation of the effects of gaseous pollutants. • Aggravation of respiratory and cardio respiratory diseases. • Increased cough and chest discomfort. • Soiling. • Reduced visibility.
Fine Particulate Matter (PM-2.5)	• Fuel combustion in motor vehicles, equipment, and industrial sources. • Residential and agricultural burning. • Industrial processes. • Also, formed from photochemical reactions of other pollutants, including NOx, sulfur oxides, and organics.	• Increases respiratory disease. • Lung damage. • Cancer and premature death. • Reduces visibility and results in surface soiling.
Sulfur Dioxide (SO_2)	• Combustion of sulfur-containing fossil fuels. • Smelting of sulfur-bearing metal ores. • Industrial processes.	• Aggravation of respiratory diseases (asthma, emphysema). • Reduced lung function. • Irritation of eyes. • Reduced visibility. • Plant injury. • Deterioration of metals, textiles, leather, finishes, coatings, etc.

Source: California Air Resources Board, 2002.

Evaluation of the most current data on the health effects of inhalation of fine particulate matter prompted the California Air Resources Board (ARB) to recommend adoption of the statewide PM-2.5 standard that is more stringent than the federal standard. This standard was adopted in 2002. The State PM-2.5 standard is more of a goal in that it does not have specific attainment planning requirements like a federal clean air standard, but only requires continued progress towards attainment.

Similarly, the ARB extensively evaluated health effects of ozone exposure. A new state standard for an 8-hour ozone exposure was adopted in 2005, which aligned with the exposure period for the federal 8-hour standard. The California 8-hour ozone standard of 0.07 ppm is more stringent than the federal 8-hour standard of 0.075 ppm. The state standard, however, does not have a specific attainment deadline. California air quality jurisdictions are required to make steady progress towards attaining state standards, but there are no hard deadlines or any consequences of non-attainment. During the same re-evaluation process, the ARB adopted an annual state standard for nitrogen dioxide ($NO_{2)}$ that is more stringent than the corresponding federal standard, and strengthened the state one-hour NO_2 standard.

As part of EPA's 2002 consent decree on clean air standards, a further review of airborne particulate matter (PM) and human health was initiated. A substantial modification of federal clean air standards for PM was promulgated in 2006. Standards for PM-2.5 were strengthened, a new class of PM in the 2.5 to 10 micron size was created, some PM-10 standards were revoked, and a distinction between rural and urban air quality was adopted. In December, 2012, the federal annual standard for PM-2.5 was reduced from 15 $\mu g/m^3$ to 12 $\mu g/m^3$ which matches the California AAQS. The severity of the basin's non-attainment status for PM-2.5 may be increased by this action and thus require accelerated planning for future PM-2.5 attainment.

Of the standards shown in Table 1, those for ozone (O_3), and particulate matter (PM-10) are exceeded at times in the MDAB. They are called "non-attainment pollutants." Because of the variations in both the regional meteorology and in area-wide differences in levels of air pollution emissions, patterns of non-attainment have strong spatial and temporal differences.

BASELINE AIR QUALITY

Monitoring of air quality in the MDAB is the responsibility of the Mojave Desert Air Quality Management District (MDAQMD) headquartered in Victorville, California. Existing levels of criteria air pollutants in the project area can generally be inferred from measurements conducted at the Victorville Station at 14306 Park Avenue. Although the Victorville Station monitors most of the spectrum of pollutants, data for CO is no longer monitored in the Mojave Desert. Table 3 summarizes the last three years of monitoring data from the available data at for the Victorville monitoring station. From these data one can infer that baseline air quality levels near the project site are occasionally unhealthful, but that such violations of clean air standards usually affect only those people most sensitive to air pollution exposure.

a. Photochemical smog (ozone) levels occasionally exceed standards. The 8-hour state ozone standard has been exceeded approximately 7 percent of all days in the last three years while the 1-hour state standard has been exceeded less than one percent of all days. The 8-hour federal standard has been exceeded approximately 5 percent of all days in the past three years. Attainment of all clean air standards in the project vicinity is not likely to occur soon, but the severity and frequency of violations is expected to continue to slowly decline during the current decade

b. Respirable dust (PM-10) levels often exceed the state standard of 50 $\mu g/m^3$ but the less stringent federal PM-10 standard of 150 $\mu g/m^3$ is violated with much less frequency. However, given the high Max. 24-Hour concentrations it is clear that PM-10 is still of concern.

c. A substantial fraction of PM-10 is comprised of ultra-small diameter particulates capable of being inhaled into deep lung tissue (PM-2.5). There has only been one measured violation in the last three years.

Although complete attainment of every clean air standard is not yet imminent, extrapolation of the steady improvement trend suggests that such attainment could occur within the reasonably near future.

Table 3
Air Quality Monitoring Summary (2016-2018)
(Number of Days Standards Were Exceeded, and Maximum Levels During Such Violations)
(Entries shown as estimated days exceeding standard)

Pollutant/Standard	2016	2017	2018
Ozone			
1-Hour > 0.09 ppm (S)	4	0	5
8-Hour > 0.07 ppm (S)	33	17	55
8- Hour > 0.075 ppm (F)	18	7	27
Max. 1-Hour Conc. (ppm)	0.100	0.088	0.107
Max. 8-Hour Conc. (ppm)	0.086	0.082	0.097
Nitrogen Dioxide			
1-Hour > 0.18 ppm (S)	0	0	0
Max. 1-Hour Conc. (ppm)	0.097	0.057	0.057
Inhalable Particulates (PM-10)			
24-Hour > 50 $\mu g/m^3$ (S)	na	na	na
24-Hour > 150 $\mu g/m^3$ (F)	1.9	1.0	1.0
Max. 24-Hr. Conc. ($\mu g/m^3$)	226.5	182.5	165.2
Ultra-Fine Particulates (PM-2.5)			
24-Hour > 35 $\mu g/m^3$ (F)	1	0	0
Max. 24-Hr. Conc. ($\mu g/m^3$)	41.5	27.2	32.7

na = not available
S=State Standard
F=Federal Standard

Source: Victorville Station: Ozone, CO, NO_2, PM-10, PM-2.5
data: www.arb.ca.gov/adam/

AIR QUALITY IMPACTS

STANDARDS OF SIGNIFICANCE

The Mojave Desert AQMD has adopted numerical emissions thresholds as indicators of potential impact even if the actual air quality increment cannot be directly quantified. The MDAQMD thresholds are as follows:

Carbon Monoxide (CO)	548 pounds/day	100 tons/year
Nitrogen Oxides (NOx)	137 pounds/day	25 tons/year
Sulfur Oxides (SOx)	137 pounds/day	25 tons/year
Reactive Organic Gases (ROG)	137 pounds/day	25 tons/year
Particulate Matter (PM-10)	82 pounds/day	15 tons/year
Particulate Matter (PM-2.5)	65 pounds/day	12 tons/year
GHG	548,000 pounds/day	100,000 tons/year

PROJECT DESCRIPTION

The 8.34 project site is located in the high desert region of San Bernardino County. The project proposes eight buildings. Each individual building will total 20,000 sf in size, for a total building square footage of 160,000 sf. The facility is designed for the cultivation and processing of medicinal marijuana. Each building will house a small office building, and will facilitate the growing, cultivation, and manufacturing of medicinal cannabis.

In addition to the buildings, the project will provide a total of 110 parking spaces. The project includes a retention basin that will collect runoff from the project site, which will be located directly on the northeastern boundary of the site. The proposed project also includes off-site improvements including the development of half of the adjacent streets on three sides of the project: Auburn Avenue to the north, Barcelona Avenue to the south, and Pearmain Avenue to the east. Although Auburn Avenue, Pearmain Avenue and Barcelona Avenue are established roadways they are not currently paved. The project would pave half of these three segments of roadway. Each of these segments of roadway would be approximately 700 feet in length, and about 10 feet in width.

Additionally, the project requires the extension of a water line and a sewer line to the project from the intersection of Jonathan Street and Auburn Avenue in the amount of approximately 1,000 lineal feet (LF); both the proposed water line and proposed sewer line will be 8 inches in diameter.

Odors on site will be handled utilizing commercial odor controls with carbon filters, which utilize activated charcoal, carbon filters, and an extractor fan for flow of air.

Once in operation, it is anticipated that the Adelanto Project for Medical Cannabis Cultivation Development will employ a maximum of 5-10 persons.

Construction of each phase of the proposed Cannabis Cultivation Facility is anticipated to start of construction date in about the fourth quarter of 2020. For simplicity, the 1st quarter of 2021 was used so as to model worst annual emissions by concentrating in as few years as possible. Although the project is expected to be constructed in phases, as a worst-case assumption it was assumed the entire project would be built out at the same time. Spreading construction over a larger period of time would generate much lower daily emissions as well as annual emissions. It is anticipated that the development will require less than 2 years of construction to complete the entire Cannabis Cultivation Facility if build-out were to occur at the same time. Therefore, opening year was assumed to be 2022. Opening in later years will provide for lower emissions as equipment and cars become progressively cleaner and older machines are phased out.

The project is anticipated to require minimal cut and fill with any cut being reused to balance on-site. Grading will be by traditional mechanized grading and compaction equipment. Equipment utilized will be traditional site development equipment of graders, vibratory compactors, petroleum powered fork lifts, and various hand tools traditional to commercial construction. The maximum number of construction employees required to complete the proposed development is about 35 persons per day. The structures that will be developed are metal buildings.

ADJACENT USES

At present, the site is vacant, and contains scattered native vegetation. Most of the land surrounding the project site is vacant, though a wastewater treatment plant is located across the street to the north of the project site. The site is zoned for Airport Development District (ADD). The land uses immediately surrounding the project area as follows:

- North: Public Utilities;
- West: Airport Development District (ADD),
- South: Airport Development District (ADD); and
- East: Airport Development District (ADD).

The closest sensitive use to the site is a residence to the south, approximately 1,630 feet from the closest site perimeter. This residence takes access from Greening Street.

The closest residence to west is across the I-395 with a 3,300-foot distance separation. This residence is along the western perimeter of Bellflower Street.

There is also a home at the NE intersection of El Mirage Road and the I-395 with an approximate 4,300-foot distance separation.

CONSTRUCTION ACTIVITY IMPACTS

CalEEMod was developed by the SCAQMD to provide a model by which to calculate both construction emissions and operational emissions from a variety of land use projects. It calculates

both the daily maximum and annual average emissions for criteria pollutants as well as total or annual greenhouse gas (GHG) emissions. CalEEMod was used to analyze project impacts.

Table 4 is the default equipment and phase durations modeled for the project.

Table 4
Construction Activity Equipment and Durations
160,000 SF Building, 110 Parking Spaces
8.34 acres

Phase Name and Duration	Equipment
Grading and Compacting 60 days	1 Grader
	2 Forklifts
	2 Compactors
	2 Loader/Backhoes
Constructions 230 days	2 Forklifts
	3 Loader/Backhoes
	1 Crane
	1 Generator Set
	1 Welder
Pipeline and Roadway Improvement 60 days	2 Mixers
	1 Paver
	1 Paving Equipment
	2 Rollers
	1 Loader/Backhoe

As stated, it was assumed that the entire project is built out in the least number of years rather than in phases. Since the MDAQMD uses an annual threshold this would analyze the worst-case conditions.

Utilizing this indicated equipment fleet shown in Table 4 the following worst-case daily construction emissions are calculated by CalEEMod and are listed in Table 5 as compared to the daily MDAQMD thresholds. Maximum annual project-related air pollution emissions relative to the yearly MDAQMD thresholds are shown in Table 6.

Table 5
Daily Construction Emissions (lbs/day)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2021 Peak Daily Project Emissions	2.3	21.1	19.1	0.0	2.1	1.2
2022 Peak Daily Project Emissions	2.0	19.1	18.7	0.0	2.0	1.0
MDAQMD Thresholds	137	137	548	137	82	82
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Table 6
Annual Construction Emissions (tons/year)

Maximal Construction Emissions	ROG	NOx	CO	SO_2	PM-10	PM-2.5
2021 Annual Project Emissions	0.3	2.5	2.3	0.0	0.3	0.1
2022 Annual Project Emissions	0.1	0.5	0.6	0.0	0.1	0.0
MDAQMD Thresholds	25	25	100	25	15	15
Exceeds Thresholds?	*No*	*No*	*No*	*No*	*No*	*No*

Maximum project-related air pollution emissions were compared to daily and annual MDAQMD thresholds. Maximum daily and annual emissions are less than their associated CEQA thresholds.

OPERATIONAL IMPACTS

The project would be expected employ 5-10 employees. In addition, cultivation is predicted to consume 537,500 kWh/year of electricity which will be provided with use of a natural gas generator that is expected to consume 7.34 x 10^9 btu/year. Water use is estimated at 3,277 gallons per day or 1,196,190 gallons per year.

Operational emissions were calculated using CalEEMod2016.3.2 for a build-out year of 2022. If the project does not come on-line until a later year, emissions would be slightly less because of improvements of vehicular and equipment technology. The daily operational impacts are shown in Table 7 and annual emissions are shown in Table 8. As shown, operational emissions will not exceed applicable MDAQMD operational emissions CEQA thresholds of significance.

Table 7
Proposed Uses Daily Operational Impacts (2022)

	Operational Emissions (lbs/day)					
Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Area	4.5	0.0	0.0	0.0	0.0	0.0
Energy	0.0	0.1	0.1	0.0	0.0	0.0
Mobile	0.1	0.5	1.0	0.0	0.3	0.1
Generator	24.1	2.3	62.7	0.0	0.1	0.1
Total	**28.6**	**2.9**	**63.8**	**0.0**	**0.4**	**0.2**
MDAQMD Threshold	137	137	548	137	82	82
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Output in Appendix

Table 8
Proposed Uses Annual Operational Impacts (2022)

	Operational Emissions (tons/year)					
Source	**ROG**	**NOx**	**CO**	**SO_2**	**PM-10**	**PM-2.5**
Area	0.8	<0.1	<0.1	<0.1	<0.1	<0.1
Energy	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Mobile	<0.1	0.1	0.1	<0.1	<0.1	<0.1
Stationary	0.2	<0.1	0.5	<0.1	<0.1	<0.1
Total	**1.0**	**0.1**	**0.6**	**<0.1**	**0.1**	**<0.1**
MDAQMD Thresholds	25	25	100	25	15	15
Exceeds Threshold?	No	No	No	No	No	No

Source: CalEEMod Output in Appendix

CONSTRUCTION EMISSIONS MINIMIZATION

Short-term emissions are primarily related to the construction of the project and are recognized to be short in duration and without lasting impacts on air quality. With the enhanced dust control mitigation measures listed below, construction activity air pollution emissions are not expected to exceed MDAQMD CEQA thresholds for any pollutant. Regardless, the PM-10 non-attainment status of the Mojave Desert area requires that Best Available Control Measures (BACMs) be used as required by the Mojave AQMD Rule 403. Recommended construction activity mitigation includes:

Dust Control

- Apply soil stabilizers such as hay bales or aggregate cover to inactive areas.
- Prepare a high wind dust control plan and implement plan elements and terminate soil disturbance when winds exceed 25 mph.
- Stabilize previously disturbed areas if subsequent construction is delayed.
- Water exposed surfaces and haul roads 3 times/day.
- Cover all stockpiles with tarps.
- Replace ground cover in disturbed areas quickly.
- Reduce speeds on unpaved roads to less than 15 mph.
- Trenches shall be left exposed for as short a time as possible.

GREENHOUSE GAS EMISSIONS

"GHG THRESHOLDS

The MDAQMD has published thresholds for Greenhouse Gases emissions (CO_2e). The daily threshold is 548,000 lbs/day and the annual threshold is 100,000 MT/year.

CONSTRUCTION ACTIVITY GHG EMISSIONS

The project is assumed to require less than two years for construction. During project construction, the CalEEMod2016.3.2 computer model predicts that the construction activities will generate the annual CO_2e emissions identified in Table 9.

Table 9
Construction Emissions (Metric Tons CO_2e)

	CO_2e Daily	**MT CO_2e Annual**
Year 2021	4,596.5	486.5
Year 2022	4,554.9	121.4
Total	9,151.4	607.9
Amortized	305.0	20.3

CalEEMod Output provided in appendix

Policy from construction activities is typically to amortize emissions over a 30-year lifetime. The amortized level is also provided. GHG impacts from construction are considered individually less-than-significant.

PROJECT OPERATIONAL GHG EMISSIONS

The input assumptions for operational GHG emissions calculations, and the GHG conversion from consumption to annual regional CO_2e emissions are summarized in the CalEEMod2016.3.2 output files found in the appendix of this report.

As discussed, the project would be expected employ 10 employees and therefore a maximum 40 trips per day was modeled. Cultivation is predicted to consume 537,500 kWh/of energy per year which when powered via a generator would require 7.34×10^9 btu/year of natural gas. Water use is estimated at 3,277 gallons per day or 1,196,190 gallons per year.

The total operational and annualized construction emissions for the proposed project are identified in Table 10. The project GHG emissions are considered less-than-significant.

Table 10
Operational Emissions
(Metric Tons CO_2e)

Consumption Source	CO_2e Daily	MT CO_2e Annual
Area Sources	0.1	0.0
Energy Utilization	105.3	143.1
Mobile Source	445.4	69.5
Natural Gas Generator	1,618.0	11.2
Solid Waste Generation	na	75.6
Water Consumption	na	6.6
Construction	305.0	20.3
Total	2,473.8	326.3
Guideline Threshold	548,000	100,000

Consistency with GHG Plans, Programs and Policies

Adelanto has not yet developed a Greenhouse Gas Reduction Plan. Therefore, the MDAQMD significance threshold for GHGs of 100,000 MT/year and 548,000 MT/day is applied to this project. The annual GHG emissions associated with the operation of the project are estimated to be 2,473.8 lbs CO_2e per day and 326.3 MT CO_2e per year as summarized in Table 10. As such, the proposed Project would result in a less than significant impact with respect to GHG plans and policies adopted for the purpose of reducing GHG emissions.

CALEEMOD2016.3.2 COMPUTER MODEL OUTPUT

- **DAILY EMISISONS**
- **ANNUAL EMISSIONS**

Adelanto Cannabis

Riverside-Mojave Desert MDAQMD County, Summer

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	160.00	1000sqft	3.67	160,000.00	0
Parking Lot	110.00	Space	0.99	44,000.00	0
Other Asphalt Surfaces	8.00	1000sqft	0.18	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Adelanto Cannabis - Riverside-Mojave Desert MDAQMD County, Summer

Project Characteristics -

Land Use -

Construction Phase - Grading: 60 days, Construction: 230 days, Paving: 60 days

Off-road Equipment - Grading: 1 grader, 2 backhoes, 2 compactors, 2 forklifts

Off-road Equipment - Construction: 1 crane, 2 forklifts, 3 loader/backhoes, 1 welder, 1 gen set, 1 welder

Off-road Equipment - Paving: 2 mixers, 1 paver, 1 paving equipment 2 rollers, 1 loader/backhoe

Trips and VMT - 35 construction workers

Vehicle Trips - 40 daily trips employees

Construction Off-road Equipment Mitigation -

Water And Wastewater - 1,196,190 gallons water per year
3,277 gallons per day

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - User Defined -

Stationary Sources - Process Boilers -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	18.00	60.00
tblConstructionPhase	PhaseEndDate	1/4/2022	2/10/2022
tblConstructionPhase	PhaseEndDate	2/16/2021	3/25/2021
tblConstructionPhase	PhaseEndDate	1/28/2022	5/9/2022
tblConstructionPhase	PhaseStartDate	2/17/2021	3/26/2021
tblConstructionPhase	PhaseStartDate	2/5/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	1/5/2022	2/15/2022
tblGrading	AcresOfGrading	30.00	4.00
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	114.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	24.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	365.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	35.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	89.00	70.00
tblTripsAndVMT	WorkerTripNumber	18.00	70.00
tblTripsAndVMT	WorkerTripNumber	20.00	70.00
tblVehicleTrips	ST_TR	1.68	0.25
tblVehicleTrips	SU_TR	1.68	0.25
tblVehicleTrips	WD_TR	1.68	0.25
tblWater	IndoorWaterUseRate	37,000,000.00	1,196,190.00

2.0 Emissions Summary

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					
2021	2.2516	21.0359	19.1409	0.0465	1.2004	0.8886	2.0890	0.3253	0.8372	1.1625	0.0000	4,579.3764	4,579.3764	0.6854	0.0000	4,596.5114
2022	2.0415	19.0683	18.6603	0.0461	1.2004	0.7513	1.9517	0.3253	0.7083	1.0336	0.0000	4,538.0164	4,538.0164	0.6741	0.0000	4,554.8694
Maximum	**2.2516**	**21.0359**	**19.1409**	**0.0465**	**1.2004**	**0.8886**	**2.0890**	**0.3253**	**0.8372**	**1.1625**	**0.0000**	**4,579.3764**	**4,579.3764**	**0.6854**	**0.0000**	**4,596.5114**

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					
2021	2.2516	21.0359	19.1409	0.0465	1.2004	0.8886	2.0890	0.3253	0.8372	1.1625	0.0000	4,579.3764	4,579.3764	0.6854	0.0000	4,596.5114
2022	2.0415	19.0683	18.6603	0.0461	1.2004	0.7513	1.9517	0.3253	0.7083	1.0336	0.0000	4,538.0164	4,538.0164	0.6741	0.0000	4,554.8694
Maximum	**2.2516**	**21.0359**	**19.1409**	**0.0465**	**1.2004**	**0.8886**	**2.0890**	**0.3253**	**0.8372**	**1.1625**	**0.0000**	**4,579.3764**	**4,579.3764**	**0.6854**	**0.0000**	**4,596.5114**

	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**

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	4.4709	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649
Energy	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119
Mobile	0.0783	0.5704	0.9963	4.3600e-003	0.3296	2.8400e-003	0.3324	0.0882	2.6600e-003	0.0908		444.8882	444.8882	0.0198		445.3818
Stationary	24.0714	2.3176	62.6977	8.3900e-003		0.1328	0.1328		0.1328	0.1328		1,537.9315	1,537.9315	3.2157		1,618.3233
Total	**28.6302**	**2.9754**	**63.7956**	**0.0133**	**0.3296**	**0.1424**	**0.4720**	**0.0882**	**0.1422**	**0.2304**		**2,087.5703**	**2,087.5703**	**3.2376**	**1.9200e-003**	**2,169.0819**

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	lb/day										lb/day					
Area	4.4709	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649
Energy	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119
Mobile	0.0783	0.5704	0.9963	4.3600e-003	0.3296	2.8400e-003	0.3324	0.0882	2.6600e-003	0.0908		444.8882	444.8882	0.0198		445.3818
Stationary	24.0714	2.3176	62.6977	8.3900e-003		0.1328	0.1328		0.1328	0.1328		1,537.9315	1,537.9315	3.2157		1,618.3233
Total	**28.6302**	**2.9754**	**63.7956**	**0.0133**	**0.3296**	**0.1424**	**0.4720**	**0.0882**	**0.1422**	**0.2304**		**2,087.5703**	**2,087.5703**	**3.2376**	**1.9200e-003**	**2,169.0819**

	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	Grading	Grading	1/1/2021	3/25/2021	5	60	
2	Building Construction	Building Construction	3/26/2021	2/10/2022	5	230	
3	Paving	Paving	2/15/2022	5/9/2022	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Plate Compactors	2	8.00	8	0.43
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

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
Building Construction	9	70.00	50.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	70.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	70.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2021

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					0.0707	0.0000	0.0707	7.6300e-003	0.0000	7.6300e-003			0.0000			0.0000
Off-Road	1.1541	13.4433	11.2969	0.0207		0.5557	0.5557		0.5128	0.5128		1,979.9816	1,979.9816	0.6252		1,995.6122
Total	**1.1541**	**13.4433**	**11.2969**	**0.0207**	**0.0707**	**0.5557**	**0.6264**	**7.6300e-003**	**0.5128**	**0.5205**		**1,979.9816**	**1,979.9816**	**0.6252**		**1,995.6122**

3.2 Grading - 2021

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
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
Worker	0.3652	0.2133	2.9202	8.5300e-003	0.8941	5.2100e-003	0.8993	0.2371	4.7900e-003	0.2419		849.5970	849.5970	0.0201		850.1001
Total	**0.3652**	**0.2133**	**2.9202**	**8.5300e-003**	**0.8941**	**5.2100e-003**	**0.8993**	**0.2371**	**4.7900e-003**	**0.2419**		**849.5970**	**849.5970**	**0.0201**		**850.1001**

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					0.0276	0.0000	0.0276	2.9800e-003	0.0000	2.9800e-003			0.0000			0.0000
Off-Road	1.1541	13.4433	11.2969	0.0207		0.5557	0.5557		0.5128	0.5128	0.0000	1,979.9816	1,979.9816	0.6252		1,995.6122
Total	**1.1541**	**13.4433**	**11.2969**	**0.0207**	**0.0276**	**0.5557**	**0.5833**	**2.9800e-003**	**0.5128**	**0.5158**	**0.0000**	**1,979.9816**	**1,979.9816**	**0.6252**		**1,995.6122**

3.2 Grading - 2021

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
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
Worker	0.3652	0.2133	2.9202	8.5300e-003	0.8941	5.2100e-003	0.8993	0.2371	4.7900e-003	0.2419		849.5970	849.5970	0.0201		850.1001
Total	**0.3652**	**0.2133**	**2.9202**	**8.5300e-003**	**0.8941**	**5.2100e-003**	**0.8993**	**0.2371**	**4.7900e-003**	**0.2419**		**849.5970**	**849.5970**	**0.0201**		**850.1001**

3.3 Building Construction - 2021

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	1.7716	16.2530	15.4074	0.0254		0.8749	0.8749		0.8243	0.8243		2,405.3331	2,405.3331	0.5681		2,419.5365
Total	**1.7716**	**16.2530**	**15.4074**	**0.0254**		**0.8749**	**0.8749**		**0.8243**	**0.8243**		**2,405.3331**	**2,405.3331**	**0.5681**		**2,419.5365**

3.3 Building Construction - 2021

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
Vendor	0.1148	4.5697	0.8134	0.0126	0.3063	8.4600e-003	0.3148	0.0882	8.0900e-003	0.0963		1,324.4463	1,324.4463	0.0971		1,326.8748
Worker	0.3652	0.2133	2.9202	8.5300e-003	0.8941	5.2100e-003	0.8993	0.2371	4.7900e-003	0.2419		849.5970	849.5970	0.0201		850.1001
Total	**0.4800**	**4.7830**	**3.7335**	**0.0211**	**1.2004**	**0.0137**	**1.2141**	**0.3253**	**0.0129**	**0.3382**		**2,174.0434**	**2,174.0434**	**0.1173**		**2,176.9749**

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	1.7716	16.2530	15.4074	0.0254		0.8749	0.8749		0.8243	0.8243	0.0000	2,405.3331	2,405.3331	0.5681		2,419.5365
Total	**1.7716**	**16.2530**	**15.4074**	**0.0254**		**0.8749**	**0.8749**		**0.8243**	**0.8243**	**0.0000**	**2,405.3331**	**2,405.3331**	**0.5681**		**2,419.5365**

3.3 Building Construction - 2021

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
Vendor	0.1148	4.5697	0.8134	0.0126	0.3063	8.4600e-003	0.3148	0.0882	8.0900e-003	0.0963		1,324.4463	1,324.4463	0.0971		1,326.8748
Worker	0.3652	0.2133	2.9202	8.5300e-003	0.8941	5.2100e-003	0.8993	0.2371	4.7900e-003	0.2419		849.5970	849.5970	0.0201		850.1001
Total	**0.4800**	**4.7830**	**3.7335**	**0.0211**	**1.2004**	**0.0137**	**1.2141**	**0.3253**	**0.0129**	**0.3382**		**2,174.0434**	**2,174.0434**	**0.1173**		**2,176.9749**

3.3 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	1.5926	14.5607	15.2097	0.0254		0.7391	0.7391		0.6969	0.6969		2,406.3028	2,406.3028	0.5641		2,420.4045
Total	**1.5926**	**14.5607**	**15.2097**	**0.0254**		**0.7391**	**0.7391**		**0.6969**	**0.6969**		**2,406.3028**	**2,406.3028**	**0.5641**		**2,420.4045**

3.3 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	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
Vendor	0.1070	4.3156	0.7564	0.0125	0.3063	7.1100e-003	0.3134	0.0882	6.8000e-003	0.0950		1,313.1661	1,313.1661	0.0920		1,315.4655
Worker	0.3418	0.1920	2.6942	8.2100e-003	0.8941	5.0700e-003	0.8992	0.2371	4.6700e-003	0.2418		818.5475	818.5475	0.0181		818.9995
Total	**0.4488**	**4.5076**	**3.4506**	**0.0207**	**1.2004**	**0.0122**	**1.2126**	**0.3253**	**0.0115**	**0.3368**		**2,131.7136**	**2,131.7136**	**0.1101**		**2,134.4649**

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	1.5926	14.5607	15.2097	0.0254		0.7391	0.7391		0.6969	0.6969	0.0000	2,406.3028	2,406.3028	0.5641		2,420.4045
Total	**1.5926**	**14.5607**	**15.2097**	**0.0254**		**0.7391**	**0.7391**		**0.6969**	**0.6969**	**0.0000**	**2,406.3028**	**2,406.3028**	**0.5641**		**2,420.4045**

3.3 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	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
Vendor	0.1070	4.3156	0.7564	0.0125	0.3063	7.1100e-003	0.3134	0.0882	6.8000e-003	0.0950		1,313.1661	1,313.1661	0.0920		1,315.4655
Worker	0.3418	0.1920	2.6942	8.2100e-003	0.8941	5.0700e-003	0.8992	0.2371	4.6700e-003	0.2418		818.5475	818.5475	0.0181		818.9995
Total	**0.4488**	**4.5076**	**3.4506**	**0.0207**	**1.2004**	**0.0122**	**1.2126**	**0.3253**	**0.0115**	**0.3368**		**2,131.7136**	**2,131.7136**	**0.1101**		**2,134.4649**

3.4 Paving - 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	0.8428	8.2189	10.2845	0.0159		0.4241	0.4241		0.3919	0.3919		1,509.2784	1,509.2784	0.4715		1,521.0657
Paving	0.0511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8939**	**8.2189**	**10.2845**	**0.0159**		**0.4241**	**0.4241**		**0.3919**	**0.3919**		**1,509.2784**	**1,509.2784**	**0.4715**		**1,521.0657**

3.4 Paving - 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	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
Vendor	2.1400e-003	0.0863	0.0151	2.5000e-004	6.1300e-003	1.4000e-004	6.2700e-003	1.7600e-003	1.4000e-004	1.9000e-003		26.2633	26.2633	1.8400e-003		26.3093
Worker	0.3418	0.1920	2.6942	8.2100e-003	0.8941	5.0700e-003	0.8992	0.2371	4.6700e-003	0.2418		818.5475	818.5475	0.0181		818.9995
Total	**0.3439**	**0.2783**	**2.7093**	**8.4600e-003**	**0.9002**	**5.2100e-003**	**0.9055**	**0.2389**	**4.8100e-003**	**0.2437**		**844.8108**	**844.8108**	**0.0199**		**845.3088**

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	0.8428	8.2189	10.2845	0.0159		0.4241	0.4241		0.3919	0.3919	0.0000	1,509.2784	1,509.2784	0.4715		1,521.0657
Paving	0.0511					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	**0.8939**	**8.2189**	**10.2845**	**0.0159**		**0.4241**	**0.4241**		**0.3919**	**0.3919**	**0.0000**	**1,509.2784**	**1,509.2784**	**0.4715**		**1,521.0657**

3.4 Paving - 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	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
Vendor	2.1400e-003	0.0863	0.0151	2.5000e-004	6.1300e-003	1.4000e-004	6.2700e-003	1.7600e-003	1.4000e-004	1.9000e-003		26.2633	26.2633	1.8400e-003		26.3093
Worker	0.3418	0.1920	2.6942	8.2100e-003	0.8941	5.0700e-003	0.8992	0.2371	4.6700e-003	0.2418		818.5475	818.5475	0.0181		818.9995
Total	**0.3439**	**0.2783**	**2.7093**	**8.4600e-003**	**0.9002**	**5.2100e-003**	**0.9055**	**0.2389**	**4.8100e-003**	**0.2437**		**844.8108**	**844.8108**	**0.0199**		**845.3088**

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	0.0783	0.5704	0.9963	4.3600e-003	0.3296	2.8400e-003	0.3324	0.0882	2.6600e-003	0.0908		444.8882	444.8882	0.0198		445.3818
Unmitigated	0.0783	0.5704	0.9963	4.3600e-003	0.3296	2.8400e-003	0.3324	0.0882	2.6600e-003	0.0908		444.8882	444.8882	0.0198		445.3818

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	40.00	40.00	40.00	154,539	154,539
Total	40.00	40.00	40.00	154,539	154,539

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
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Unrefrigerated Warehouse-No Rail	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119
NaturalGas Unmitigated	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119

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					
Other Asphalt Surfaces	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
Unrefrigerated Warehouse-No Rail	889.863	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119
Total		**9.6000e-003**	**0.0872**	**0.0733**	**5.2000e-004**		**6.6300e-003**	**6.6300e-003**		**6.6300e-003**	**6.6300e-003**		**104.6898**	**104.6898**	**2.0100e-003**	**1.9200e-003**	**105.3119**

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					
Other Asphalt Surfaces	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
Unrefrigerated Warehouse-No Rail	0.889863	9.6000e-003	0.0872	0.0733	5.2000e-004		6.6300e-003	6.6300e-003		6.6300e-003	6.6300e-003		104.6898	104.6898	2.0100e-003	1.9200e-003	105.3119
Total		**9.6000e-003**	**0.0872**	**0.0733**	**5.2000e-004**		**6.6300e-003**	**6.6300e-003**		**6.6300e-003**	**6.6300e-003**		**104.6898**	**104.6898**	**2.0100e-003**	**1.9200e-003**	**105.3119**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	4.4709	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649
Unmitigated	4.4709	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649

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	1.0258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6400e-003	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649
Total	**4.4709**	**2.6000e-004**	**0.0284**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0608**	**0.0608**	**1.6000e-004**		**0.0649**

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	1.0258					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	3.4424					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	2.6400e-003	2.6000e-004	0.0284	0.0000		1.0000e-004	1.0000e-004		1.0000e-004	1.0000e-004		0.0608	0.0608	1.6000e-004		0.0649
Total	**4.4709**	**2.6000e-004**	**0.0284**	**0.0000**		**1.0000e-004**	**1.0000e-004**		**1.0000e-004**	**1.0000e-004**		**0.0608**	**0.0608**	**1.6000e-004**		**0.0649**

7.0 Water Detail

7.1 Mitigation Measures Water

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
Emergency Generator	1	24	365	114	0.73	CNG

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	lb/day										lb/day					
Emergency Generator - CNG (0 - 500 HP)	24.0714	2.3176	62.6977	8.3900e-003		0.1328	0.1328		0.1328	0.1328		1,537.9315	1,537.9315	3.2157		1,618.3233
Total	**24.0714**	**2.3176**	**62.6977**	**8.3900e-003**		**0.1328**	**0.1328**		**0.1328**	**0.1328**		**1,537.9315**	**1,537.9315**	**3.2157**		**1,618.3233**

11.0 Vegetation

Adelanto Cannabis

Riverside-Mojave Desert MDAQMD County, Annual

1.0 Project Characteristics

1.1 Land Usage

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
Unrefrigerated Warehouse-No Rail	160.00	1000sqft	3.67	160,000.00	0
Parking Lot	110.00	Space	0.99	44,000.00	0
Other Asphalt Surfaces	8.00	1000sqft	0.18	8,000.00	0

1.2 Other Project Characteristics

Urbanization	Rural	**Wind Speed (m/s)**	2.6	**Precipitation Freq (Days)**	28
Climate Zone	10			**Operational Year**	2022
Utility Company	Southern California Edison				
CO2 Intensity (lb/MWhr)	702.44	**CH4 Intensity (lb/MWhr)**	0.029	**N2O Intensity (lb/MWhr)**	0.006

1.3 User Entered Comments & Non-Default Data

Adelanto Cannabis - Riverside-Mojave Desert MDAQMD County, Annual

Project Characteristics -

Land Use -

Construction Phase - Grading: 60 days, Construction: 230 days, Paving: 60 days

Off-road Equipment - Grading: 1 grader, 2 backhoes, 2 compactors, 2 forklifts

Off-road Equipment - Construction: 1 crane, 2 forklifts, 3 loader/backhoes, 1 welder, 1 gen set, 1 welder

Off-road Equipment - Paving: 2 mixers, 1 paver, 1 paving equipment 2 rollers, 1 loader/backhoe

Trips and VMT - 35 construction workers

Vehicle Trips - 40 daily trips employees

Construction Off-road Equipment Mitigation -

Water And Wastewater - 1,196,190 gallons water per year
3,277 gallons per day

Stationary Sources - Emergency Generators and Fire Pumps -

Stationary Sources - User Defined -

Stationary Sources - Process Boilers -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	8.00	60.00
tblConstructionPhase	NumDays	18.00	60.00
tblConstructionPhase	PhaseEndDate	1/4/2022	2/10/2022
tblConstructionPhase	PhaseEndDate	2/16/2021	3/25/2021
tblConstructionPhase	PhaseEndDate	1/28/2022	5/9/2022
tblConstructionPhase	PhaseStartDate	2/17/2021	3/26/2021
tblConstructionPhase	PhaseStartDate	2/5/2021	1/1/2021
tblConstructionPhase	PhaseStartDate	1/5/2022	2/15/2022
tblGrading	AcresOfGrading	30.00	4.00
tblOffRoadEquipment	OffRoadEquipmentType		Plate Compactors
tblOffRoadEquipment	OffRoadEquipmentType		Rough Terrain Forklifts
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	3.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblProjectCharacteristics	UrbanizationLevel	Urban	Rural
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	114.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	24.00
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	365.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	VendorTripNumber	35.00	50.00
tblTripsAndVMT	VendorTripNumber	0.00	1.00
tblTripsAndVMT	WorkerTripNumber	89.00	70.00
tblTripsAndVMT	WorkerTripNumber	18.00	70.00
tblTripsAndVMT	WorkerTripNumber	20.00	70.00
tblVehicleTrips	ST_TR	1.68	0.25
tblVehicleTrips	SU_TR	1.68	0.25
tblVehicleTrips	WD_TR	1.68	0.25
tblWater	IndoorWaterUseRate	37,000,000.00	1,196,190.00

2.0 Emissions Summary

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					
2021	0.2679	2.5290	2.2995	5.4400e-003	0.1472	0.1061	0.2534	0.0395	0.0997	0.1391	0.0000	484.5117	484.5117	0.0803	0.0000	486.5179
2022	0.0655	0.5324	0.6431	1.3700e-003	0.0437	0.0238	0.0675	0.0117	0.0222	0.0339	0.0000	120.8269	120.8269	0.0222	0.0000	121.3826
Maximum	**0.2679**	**2.5290**	**2.2995**	**5.4400e-003**	**0.1472**	**0.1061**	**0.2534**	**0.0395**	**0.0997**	**0.1391**	**0.0000**	**484.5117**	**484.5117**	**0.0803**	**0.0000**	**486.5179**

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					
2021	0.2679	2.5290	2.2995	5.4400e-003	0.1459	0.1061	0.2521	0.0393	0.0997	0.1390	0.0000	484.5113	484.5113	0.0803	0.0000	486.5175
2022	0.0655	0.5324	0.6431	1.3700e-003	0.0437	0.0238	0.0675	0.0117	0.0222	0.0339	0.0000	120.8268	120.8268	0.0222	0.0000	121.3825
Maximum	**0.2679**	**2.5290**	**2.2995**	**5.4400e-003**	**0.1459**	**0.1061**	**0.2521**	**0.0393**	**0.0997**	**0.1390**	**0.0000**	**484.5113**	**484.5113**	**0.0803**	**0.0000**	**486.5175**

	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**	**0.68**	**0.00**	**0.40**	**0.25**	**0.00**	**0.08**	**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	1-1-2021	3-31-2021	0.5052	0.5052
2	4-1-2021	6-30-2021	0.7568	0.7568
3	7-1-2021	9-30-2021	0.7652	0.7652
4	10-1-2021	12-31-2021	0.7641	0.7641
5	1-1-2022	3-31-2022	0.4651	0.4651
6	4-1-2022	6-30-2022	0.1356	0.1356
		Highest	0.7652	0.7652

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	0.8157	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003
Energy	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	142.5508	142.5508	5.5000e-003	1.3900e-003	143.1018
Mobile	0.0122	0.1058	0.1606	7.5000e-004	0.0590	5.2000e-004	0.0595	0.0158	4.9000e-004	0.0163	0.0000	69.3990	69.3990	3.2600e-003	0.0000	69.4804
Stationary	0.1830	0.0176	0.4768	6.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	10.6092	10.6092	0.0222	0.0000	11.1638
Waste						0.0000	0.0000		0.0000	0.0000	30.5298	0.0000	30.5298	1.8043	0.0000	75.6364
Water						0.0000	0.0000		0.0000	0.0000	0.3795	4.9627	5.3422	0.0392	9.6000e-004	6.6087
Total	**1.0127**	**0.1394**	**0.6533**	**9.1000e-004**	**0.0590**	**2.7500e-003**	**0.0618**	**0.0158**	**2.7200e-003**	**0.0185**	**30.9093**	**227.5267**	**258.4360**	**1.8744**	**2.3500e-003**	**305.9964**

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	0.8157	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003
Energy	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	142.5508	142.5508	5.5000e-003	1.3900e-003	143.1018
Mobile	0.0122	0.1058	0.1606	7.5000e-004	0.0590	5.2000e-004	0.0595	0.0158	4.9000e-004	0.0163	0.0000	69.3990	69.3990	3.2600e-003	0.0000	69.4804
Stationary	0.1830	0.0176	0.4768	6.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	10.6092	10.6092	0.0222	0.0000	11.1638
Waste						0.0000	0.0000		0.0000	0.0000	30.5298	0.0000	30.5298	1.8043	0.0000	75.6364
Water						0.0000	0.0000		0.0000	0.0000	0.3795	4.9627	5.3422	0.0392	9.6000e-004	6.6087
Total	**1.0127**	**0.1394**	**0.6533**	**9.1000e-004**	**0.0590**	**2.7500e-003**	**0.0618**	**0.0158**	**2.7200e-003**	**0.0185**	**30.9093**	**227.5267**	**258.4360**	**1.8744**	**2.3500e-003**	**305.9964**

	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	Grading	Grading	1/1/2021	3/25/2021	5	60	
2	Building Construction	Building Construction	3/26/2021	2/10/2022	5	230	
3	Paving	Paving	2/15/2022	5/9/2022	5	60	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 4

Acres of Paving: 1.17

Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Plate Compactors	2	8.00	8	0.43
Paving	Cement and Mortar Mixers	2	6.00	9	0.56
Grading	Rough Terrain Forklifts	2	8.00	100	0.40
Building Construction	Cranes	1	7.00	231	0.29
Building Construction	Forklifts	2	8.00	89	0.20
Paving	Pavers	1	8.00	130	0.42
Paving	Rollers	2	6.00	80	0.38
Building Construction	Tractors/Loaders/Backhoes	3	7.00	97	0.37
Building Construction	Generator Sets	1	8.00	84	0.74
Grading	Tractors/Loaders/Backhoes	2	8.00	97	0.37
Paving	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Graders	1	8.00	187	0.41
Paving	Paving Equipment	1	6.00	132	0.36
Building Construction	Welders	1	8.00	46	0.45

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
Building Construction	9	70.00	50.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Grading	7	70.00	0.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT
Paving	8	70.00	1.00	0.00	16.80	6.60	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

3.2 Grading - 2021

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					2.1200e-003	0.0000	2.1200e-003	2.3000e-004	0.0000	2.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.4033	0.3389	6.2000e-004		0.0167	0.0167		0.0154	0.0154	0.0000	53.8863	53.8863	0.0170	0.0000	54.3117
Total	**0.0346**	**0.4033**	**0.3389**	**6.2000e-004**	**2.1200e-003**	**0.0167**	**0.0188**	**2.3000e-004**	**0.0154**	**0.0156**	**0.0000**	**53.8863**	**53.8863**	**0.0170**	**0.0000**	**54.3117**

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	9.9800e-003	6.8500e-003	0.0743	2.4000e-004	0.0264	1.6000e-004	0.0265	7.0000e-003	1.4000e-004	7.1500e-003	0.0000	21.2739	21.2739	4.9000e-004	0.0000	21.2862
Total	**9.9800e-003**	**6.8500e-003**	**0.0743**	**2.4000e-004**	**0.0264**	**1.6000e-004**	**0.0265**	**7.0000e-003**	**1.4000e-004**	**7.1500e-003**	**0.0000**	**21.2739**	**21.2739**	**4.9000e-004**	**0.0000**	**21.2862**

3.2 Grading - 2021

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					8.3000e-004	0.0000	8.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0346	0.4033	0.3389	6.2000e-004		0.0167	0.0167		0.0154	0.0154	0.0000	53.8862	53.8862	0.0170	0.0000	54.3116
Total	**0.0346**	**0.4033**	**0.3389**	**6.2000e-004**	**8.3000e-004**	**0.0167**	**0.0175**	**9.0000e-005**	**0.0154**	**0.0155**	**0.0000**	**53.8862**	**53.8862**	**0.0170**	**0.0000**	**54.3116**

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	9.9800e-003	6.8500e-003	0.0743	2.4000e-004	0.0264	1.6000e-004	0.0265	7.0000e-003	1.4000e-004	7.1500e-003	0.0000	21.2739	21.2739	4.9000e-004	0.0000	21.2862
Total	**9.9800e-003**	**6.8500e-003**	**0.0743**	**2.4000e-004**	**0.0264**	**1.6000e-004**	**0.0265**	**7.0000e-003**	**1.4000e-004**	**7.1500e-003**	**0.0000**	**21.2739**	**21.2739**	**4.9000e-004**	**0.0000**	**21.2862**

3.3 Building Construction - 2021

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	0.1781	1.6334	1.5484	2.5500e-003		0.0879	0.0879		0.0828	0.0828	0.0000	219.2992	219.2992	0.0518	0.0000	220.5942
Total	**0.1781**	**1.6334**	**1.5484**	**2.5500e-003**		**0.0879**	**0.0879**		**0.0828**	**0.0828**	**0.0000**	**219.2992**	**219.2992**	**0.0518**	**0.0000**	**220.5942**

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	0.0118	0.4624	0.0889	1.2400e-003	0.0304	8.6000e-004	0.0312	8.7600e-003	8.2000e-004	9.5800e-003	0.0000	118.7847	118.7847	9.3000e-003	0.0000	119.0172
Worker	0.0334	0.0229	0.2489	7.9000e-004	0.0884	5.2000e-004	0.0889	0.0235	4.8000e-004	0.0239	0.0000	71.2676	71.2676	1.6500e-003	0.0000	71.3087
Total	**0.0452**	**0.4854**	**0.3378**	**2.0300e-003**	**0.1187**	**1.3800e-003**	**0.1201**	**0.0322**	**1.3000e-003**	**0.0335**	**0.0000**	**190.0523**	**190.0523**	**0.0110**	**0.0000**	**190.3259**

3.3 Building Construction - 2021

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	0.1781	1.6334	1.5484	2.5500e-003		0.0879	0.0879		0.0828	0.0828	0.0000	219.2989	219.2989	0.0518	0.0000	220.5939
Total	**0.1781**	**1.6334**	**1.5484**	**2.5500e-003**		**0.0879**	**0.0879**		**0.0828**	**0.0828**	**0.0000**	**219.2989**	**219.2989**	**0.0518**	**0.0000**	**220.5939**

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	0.0118	0.4624	0.0889	1.2400e-003	0.0304	8.6000e-004	0.0312	8.7600e-003	8.2000e-004	9.5800e-003	0.0000	118.7847	118.7847	9.3000e-003	0.0000	119.0172
Worker	0.0334	0.0229	0.2489	7.9000e-004	0.0884	5.2000e-004	0.0889	0.0235	4.8000e-004	0.0239	0.0000	71.2676	71.2676	1.6500e-003	0.0000	71.3087
Total	**0.0452**	**0.4854**	**0.3378**	**2.0300e-003**	**0.1187**	**1.3800e-003**	**0.1201**	**0.0322**	**1.3000e-003**	**0.0335**	**0.0000**	**190.0523**	**190.0523**	**0.0110**	**0.0000**	**190.3259**

3.3 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	0.0231	0.2111	0.2205	3.7000e-004		0.0107	0.0107		0.0101	0.0101	0.0000	31.6529	31.6529	7.4200e-003	0.0000	31.8384
Total	**0.0231**	**0.2111**	**0.2205**	**3.7000e-004**		**0.0107**	**0.0107**		**0.0101**	**0.0101**	**0.0000**	**31.6529**	**31.6529**	**7.4200e-003**	**0.0000**	**31.8384**

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	1.5900e-003	0.0629	0.0120	1.8000e-004	4.3800e-003	1.0000e-004	4.4900e-003	1.2600e-003	1.0000e-004	1.3600e-003	0.0000	16.9905	16.9905	1.2700e-003	0.0000	17.0223
Worker	4.5200e-003	2.9800e-003	0.0331	1.1000e-004	0.0128	7.0000e-005	0.0128	3.3900e-003	7.0000e-005	3.4500e-003	0.0000	9.9071	9.9071	2.1000e-004	0.0000	9.9124
Total	**6.1100e-003**	**0.0659**	**0.0450**	**2.9000e-004**	**0.0171**	**1.7000e-004**	**0.0173**	**4.6500e-003**	**1.7000e-004**	**4.8100e-003**	**0.0000**	**26.8976**	**26.8976**	**1.4800e-003**	**0.0000**	**26.9347**

3.3 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	tons/yr										MT/yr					
Off-Road	0.0231	0.2111	0.2205	3.7000e-004		0.0107	0.0107		0.0101	0.0101	0.0000	31.6529	31.6529	7.4200e-003	0.0000	31.8384
Total	**0.0231**	**0.2111**	**0.2205**	**3.7000e-004**		**0.0107**	**0.0107**		**0.0101**	**0.0101**	**0.0000**	**31.6529**	**31.6529**	**7.4200e-003**	**0.0000**	**31.8384**

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	1.5900e-003	0.0629	0.0120	1.8000e-004	4.3800e-003	1.0000e-004	4.4900e-003	1.2600e-003	1.0000e-004	1.3600e-003	0.0000	16.9905	16.9905	1.2700e-003	0.0000	17.0223
Worker	4.5200e-003	2.9800e-003	0.0331	1.1000e-004	0.0128	7.0000e-005	0.0128	3.3900e-003	7.0000e-005	3.4500e-003	0.0000	9.9071	9.9071	2.1000e-004	0.0000	9.9124
Total	**6.1100e-003**	**0.0659**	**0.0450**	**2.9000e-004**	**0.0171**	**1.7000e-004**	**0.0173**	**4.6500e-003**	**1.7000e-004**	**4.8100e-003**	**0.0000**	**26.8976**	**26.8976**	**1.4800e-003**	**0.0000**	**26.9347**

3.4 Paving - 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	0.0253	0.2466	0.3085	4.8000e-004		0.0127	0.0127		0.0118	0.0118	0.0000	41.0758	41.0758	0.0128	0.0000	41.3966
Paving	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.2466**	**0.3085**	**4.8000e-004**		**0.0127**	**0.0127**		**0.0118**	**0.0118**	**0.0000**	**41.0758**	**41.0758**	**0.0128**	**0.0000**	**41.3966**

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	7.0000e-005	2.6000e-003	4.9000e-004	1.0000e-005	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.7031	0.7031	5.0000e-005	0.0000	0.7044
Worker	9.3600e-003	6.1600e-003	0.0685	2.3000e-004	0.0264	1.5000e-004	0.0265	7.0000e-003	1.4000e-004	7.1400e-003	0.0000	20.4974	20.4974	4.4000e-004	0.0000	20.5085
Total	**9.4300e-003**	**8.7600e-003**	**0.0690**	**2.4000e-004**	**0.0266**	**1.5000e-004**	**0.0267**	**7.0500e-003**	**1.4000e-004**	**7.2000e-003**	**0.0000**	**21.2005**	**21.2005**	**4.9000e-004**	**0.0000**	**21.2128**

3.4 Paving - 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	tons/yr										MT/yr					
Off-Road	0.0253	0.2466	0.3085	4.8000e-004		0.0127	0.0127		0.0118	0.0118	0.0000	41.0758	41.0758	0.0128	0.0000	41.3966
Paving	1.5300e-003					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0268**	**0.2466**	**0.3085**	**4.8000e-004**		**0.0127**	**0.0127**		**0.0118**	**0.0118**	**0.0000**	**41.0758**	**41.0758**	**0.0128**	**0.0000**	**41.3966**

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	7.0000e-005	2.6000e-003	4.9000e-004	1.0000e-005	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	6.0000e-005	0.0000	0.7031	0.7031	5.0000e-005	0.0000	0.7044
Worker	9.3600e-003	6.1600e-003	0.0685	2.3000e-004	0.0264	1.5000e-004	0.0265	7.0000e-003	1.4000e-004	7.1400e-003	0.0000	20.4974	20.4974	4.4000e-004	0.0000	20.5085
Total	**9.4300e-003**	**8.7600e-003**	**0.0690**	**2.4000e-004**	**0.0266**	**1.5000e-004**	**0.0267**	**7.0500e-003**	**1.4000e-004**	**7.2000e-003**	**0.0000**	**21.2005**	**21.2005**	**4.9000e-004**	**0.0000**	**21.2128**

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	tons/yr										MT/yr					
Mitigated	0.0122	0.1058	0.1606	7.5000e-004	0.0590	5.2000e-004	0.0595	0.0158	4.9000e-004	0.0163	0.0000	69.3990	69.3990	3.2600e-003	0.0000	69.4804
Unmitigated	0.0122	0.1058	0.1606	7.5000e-004	0.0590	5.2000e-004	0.0595	0.0158	4.9000e-004	0.0163	0.0000	69.3990	69.3990	3.2600e-003	0.0000	69.4804

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Other Asphalt Surfaces	0.00	0.00	0.00		
Parking Lot	0.00	0.00	0.00		
Unrefrigerated Warehouse-No Rail	40.00	40.00	40.00	154,539	154,539
Total	40.00	40.00	40.00	154,539	154,539

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
Other Asphalt Surfaces	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Parking Lot	14.70	6.60	6.60	0.00	0.00	0.00	0	0	0
Unrefrigerated Warehouse-No	14.70	6.60	6.60	59.00	0.00	41.00	92	5	3

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
Other Asphalt Surfaces	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Parking Lot	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965
Unrefrigerated Warehouse-No Rail	0.545527	0.036856	0.186032	0.115338	0.015222	0.004970	0.017525	0.069528	0.001397	0.001160	0.004547	0.000932	0.000965

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

	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	125.2182	125.2182	5.1700e-003	1.0700e-003	125.6662
Electricity Unmitigated						0.0000	0.0000		0.0000	0.0000	0.0000	125.2182	125.2182	5.1700e-003	1.0700e-003	125.6662
NaturalGas Mitigated	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3326	17.3326	3.3000e-004	3.2000e-004	17.4356
NaturalGas Unmitigated	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3326	17.3326	3.3000e-004	3.2000e-004	17.4356

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					
Other Asphalt Surfaces	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
Unrefrigerated Warehouse-No Rail	324800	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3326	17.3326	3.3000e-004	3.2000e-004	17.4356
Total		**1.7500e-003**	**0.0159**	**0.0134**	**1.0000e-004**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**17.3326**	**17.3326**	**3.3000e-004**	**3.2000e-004**	**17.4356**

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					
Other Asphalt Surfaces	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
Unrefrigerated Warehouse-No Rail	324800	1.7500e-003	0.0159	0.0134	1.0000e-004		1.2100e-003	1.2100e-003		1.2100e-003	1.2100e-003	0.0000	17.3326	17.3326	3.3000e-004	3.2000e-004	17.4356
Total		**1.7500e-003**	**0.0159**	**0.0134**	**1.0000e-004**		**1.2100e-003**	**1.2100e-003**		**1.2100e-003**	**1.2100e-003**	**0.0000**	**17.3326**	**17.3326**	**3.3000e-004**	**3.2000e-004**	**17.4356**

5.3 Energy by Land Use - Electricity

Unmitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	15400	4.9068	2.0000e-004	4.0000e-005	4.9243
Unrefrigerated Warehouse-No Rail	377600	120.3115	4.9700e-003	1.0300e-003	120.7419
Total		**125.2182**	**5.1700e-003**	**1.0700e-003**	**125.6662**

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	15400	4.9068	2.0000e-004	4.0000e-005	4.9243
Unrefrigerated Warehouse-No Rail	377600	120.3115	4.9700e-003	1.0300e-003	120.7419
Total		**125.2182**	**5.1700e-003**	**1.0700e-003**	**125.6662**

6.0 Area Detail

6.1 Mitigation Measures Area

	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	0.8157	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003
Unmitigated	0.8157	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003

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	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003
Total	**0.8157**	**2.0000e-005**	**2.5600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.9700e-003**	**4.9700e-003**	**1.0000e-005**	**0.0000**	**5.3000e-003**

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	0.1872					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.6282					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	2.4000e-004	2.0000e-005	2.5600e-003	0.0000		1.0000e-005	1.0000e-005		1.0000e-005	1.0000e-005	0.0000	4.9700e-003	4.9700e-003	1.0000e-005	0.0000	5.3000e-003
Total	**0.8157**	**2.0000e-005**	**2.5600e-003**	**0.0000**		**1.0000e-005**	**1.0000e-005**		**1.0000e-005**	**1.0000e-005**	**0.0000**	**4.9700e-003**	**4.9700e-003**	**1.0000e-005**	**0.0000**	**5.3000e-003**

7.0 Water Detail

7.1 Mitigation Measures Water

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	5.3422	0.0392	9.6000e-004	6.6087
Unmitigated	5.3422	0.0392	9.6000e-004	6.6087

7.2 Water by Land Use

Unmitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.19619 / 0	5.3422	0.0392	9.6000e-004	6.6087
Total		**5.3422**	**0.0392**	**9.6000e-004**	**6.6087**

7.2 Water by Land Use

Mitigated

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
Other Asphalt Surfaces	0 / 0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0 / 0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	1.19619 / 0	5.3422	0.0392	9.6000e-004	6.6087
Total		**5.3422**	**0.0392**	**9.6000e-004**	**6.6087**

8.0 Waste Detail

8.1 Mitigation Measures Waste

Category/Year

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	30.5298	1.8043	0.0000	75.6364
Unmitigated	30.5298	1.8043	0.0000	75.6364

8.2 Waste by Land Use

Unmitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	150.4	30.5298	1.8043	0.0000	75.6364
Total		**30.5298**	**1.8043**	**0.0000**	**75.6364**

8.2 Waste by Land Use

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
Other Asphalt Surfaces	0	0.0000	0.0000	0.0000	0.0000
Parking Lot	0	0.0000	0.0000	0.0000	0.0000
Unrefrigerated Warehouse-No Rail	150.4	30.5298	1.8043	0.0000	75.6364
Total		**30.5298**	**1.8043**	**0.0000**	**75.6364**

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
Emergency Generator	1	24	365	114	0.73	CNG

Boilers

Equipment Type	Number	Heat Input/Day	Heat Input/Year	Boiler Rating	Fuel Type

User Defined Equipment

Equipment Type	Number

10.1 Stationary Sources

Unmitigated/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
Equipment Type	tons/yr										MT/yr					
Emergency Generator - CNG (0 - 500 HP)	0.1830	0.0176	0.4768	6.0000e-005		1.0100e-003	1.0100e-003		1.0100e-003	1.0100e-003	0.0000	10.6092	10.6092	0.0222	0.0000	11.1638
Total	**0.1830**	**0.0176**	**0.4768**	**6.0000e-005**		**1.0100e-003**	**1.0100e-003**		**1.0100e-003**	**1.0100e-003**	**0.0000**	**10.6092**	**10.6092**	**0.0222**	**0.0000**	**11.1638**

11.0 Vegetation

APPENDIX 2

JERICHO SYSTEMS INC.
Progress & Preservation

47 1st Street, Suite 1
Redlands, CA 92373-4601
(909) 915-5900

February 05, 2020

Tom Dodson and Associates
Attn: Tom Dodson
2150 N. Arrowhead Avenue
San Bernardino, California 92504

RE: BIOLOGICAL RESOURCES ASSESSMENT & JURISDICTIONAL DELINEATION
MEDICAL CANNABIS CULTIVATION PROJECT
ASSESSOR'S PARCEL NUMBER 0459-053-53-0-000
ADELANTO, CA 92301

Dear Mr. Dodson:

Jericho Systems, Inc. (Jericho) is pleased to provide this letter report that details the results of a general Biological Resources Assessment/Jurisdictional Waters Delineation (BRA/JD) for a proposed 8.34-acre Medical Cannabis Cultivation (Project) located at North of Adelanto, and East of Highway 395 in the City of Adelanto within Assessor's Parcel Number (APN) 0459-053-53-0-000.

The purpose of the BRA was to address potential project-related impacts on designated critical habitats and/or any special status species protected under the federal Endangered Species Act (ESA), California Endangered Species Act (CESA), California Department of Fish and Wildlife (CDFW) and/or California Native Plant Society (CNPS). Jericho assessed the Project site for the potential of occurrence of listed species and species of special concern that have been documented in the vicinity and/or whose habitat requirements are present within the Site. Attention was focused on sensitive species known to occur in the locally in the Adelanto area including the State- and federally-listed as threatened desert tortoise (*Gopherus agassizii*) [DT], the State-listed as threatened Mohave ground squirrel (*Xerospermophilus mohavensis*) [MGS], and burrowing owl (*Athene cunicularia hypugaea*) [BUOW], which is a State Species of Special Concern (SSC).

This report also addresses resources protected under the Migratory Bird Treaty Act, federal Clean Water Act (CWA) regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) respectively; and Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW. The purpose of the field Jurisdictional Delineation was to determine the extent, if any, of State and /or federal jurisdictional waters that are subject to Sections 404 and 401 of the federal Clean Water Act (CWA) regulated by the U.S. Army Corps of Engineers (USACE) and Regional Water Quality Control Board (RWQCB) respectively; and/or Section 1602 of the California Fish and Game Code (FCG) administered by the CDFW.

SITE LOCATION

The Project Area is identified as APN 0459-053-53-0-000, an approximately 8.34-acre parcel located in the City of Adelanto, County of San Bernardino, California. The site can be found on the northeast side of the *Adelanto* U.S. Geological Survey 7.5' Quadrangle Map within Section 21, Township 6 North, Range 5 West. The site zoning is Airport Development District, and land use surrounding the site is vacant. The site is bounded on the north by Auburn Avenue and Aquarion Servics, a water utility company, on the west by a vacant lot and Jonathan Street, on the south by Barcelona Avenue, and on the east by Pearmain Street.

PROJECT DESCRIPTION

The Project proposes to construct eight buildings, 20,000 square feet (SF) each, each 26 feet high, designed to facilitate the cultivation and processing of medicinal marijuana. The application for the cannabis cultivation facility requires the approval of a Conditional Use Permit (CUP) in the Airport Development District. Concrete blocks measuring 8 feet tall will be installed along the perimeter for security. The Project proposes to construct the eight industrial buildings utilizing a phased approach with two buildings being constructed during each phase. Each Cultivation Building will include Flower, Vegetation, and Greenhouse Canopy areas that are designed to accommodate the various phases of cannabis cultivation and processing.

The main access to the site will be Auburn Avenue, a partially improved road, and all incoming and outgoing employee vehicles and other vehicular traffic associated with supply and materials deliveries, green and solid waste collection, and product shipping will enter and exit from this entryway. The project includes a retention basin that will collect runoff from the project site, which will be located directly on the northeastern boundary of the site. The developed area of the site when complete will be 160,000 square feet.

The proposed Project includes off-site improvements including the development of half of the adjacent streets on three sides of the project: the proposed Auburn Avenue to the north, Barcelona Avenue to the south, and Pearmain Avenue to the east. Auburn Avenue, Pearmain Avenue and Barcelona Avenue are established roadways; however, these roadways are currently not paved. As such, the project would pave half of these three segments of roadway. Each of these segments of roadway would be approximately 700 feet in length, and about 10 feet in width. The off-site improvements will also be phased to mirror the onsite phasing.

Additionally, the Project requires the extension of a water line and a sewer line to the project from the intersection of Jonathan Street and Auburn Avenue in the amount of approximately 1,000 lineal feet (LF); both the proposed water line and proposed sewer line will be 8 inches in diameter.

Construction of the first phase of the proposed Cannabis Cultivation Facility is anticipated to take approximately 6 to 9 months, with an anticipated start of construction date in about the fourth quarter of 2020, and an anticipated operational date of about the third quarter of 2021. It is anticipated that the development will require approximately 2 to 3 years of construction to complete the entire Cannabis Cultivation Facility, and that the four phases of the project will be completed by about 2026. The project site contains disturbed loose gravely soil; development of the site would require site preparation (i.e., grading and excavation), and ultimately paving, and construction of the eight proposed buildings in phases.

The project is anticipated to require minimal cut and fill with any cut being reused to balance of the site through grading. The retention pond will require excavation below ground surface of approximately 5 feet. Delivery of construction supplies and removal of any excavated materials, if necessary, will be accomplished using trucks during normal working hours, with a maximum of about 50 round trips per day. Grading will be by traditional mechanized grading and compaction equipment. Equipment utilized will be traditional site development equipment of frontend graders, vibratory compactors, petroleum powered forklifts, and various hand tools traditional to commercial construction. The types of structures that will be developed are metal buildings. The areas for cannabis growth will have a polycarbonate rigid panel roof and the areas for offices will be standing seam metal roof.

ENVIRONMENTAL SETTING

The surrounding local area is located in the EPA's Western Mojave Basins ecoregion. The Western Mojave Basins ecoregion is characterized by alluvial plains, fans, and bajadas that are typically dominated by

creosote bush and white bursage. Other areas may be dominated by shadscale, four-wing saltbush, or scattered Joshua trees. The Western Mojave Basins typically has less rainfall than the Eastern Mojave Basins, with rainfall increasing southeast toward the Sonoran Desert.

The subject parcel is located in an area with an average annual precipitation 8.85 inches. The mean annual precipitation is about 4 inches and the mean annual temperature is about 63 degrees F.

Hydrologically, the Adelanto area is located within an undefined hydrologic Sub-Area (HSA 628.20) which comprises about 556,821- acre drainage area within the larger Upper Mojave Watershed (HUC_8 18090208).

The site is relatively flat at an elevation of 870 meters (2,855 feet) above sea level, and the on-site soils consist of Bryman loamy fine sand.

The general project vicinity consists primarily of undeveloped vacant lots. Habitat on site and within the area surrounding the project site is best described as low-density creosote bush scrub and Joshua tree woodland habitat.

METHODS

As stated above, the objective of this document is to determine whether the Project area supports special status or otherwise sensitive species and/ or their habitat, and to address the potential effects associated with the Proposed project on those resources. The species and habitats addressed in this document are based on database information and field investigation.

The Survey Area consisted of the 8.34-acre Project site, and the proposed street improvements (Auburn Avenue, Pearmain Avenue and Barcelona Avenue, approximately 700 feet long by approximately 12 feet wide, and near the intersection of Jonathan Street and Auburn Avenue, approximately 1,000 linear feet to support the installation of the new water line).

Prior to conducting the field study, species and habitat information was gathered from the reports related to the specific project and relevant databases for the *Adelanto* USGS quadrangle to determine which species and/or habitats would be expected to occur on site. These sources include:

- U.S. Fish and Wildlife (USFWS) threatened and endangered species occurrence GIS overlay;
- USFWS Information for Planning and Consultation System (IPaC);
- California Natural Diversity Database (CNDDB) *Rarefind 5*;
- CNDDB Biogeographic Information and Observation System (BIOS);
- California Native Plant Society Electronic Inventory (CNPSEI) database;
- Calflora Database;
- USDA Natural Resources Conservation Service (NRCS) Web Soil Survey;
- USFWS National Wetland Inventory;
- Environmental Protection Agency (EPA) Water Program “My Waters” data layers
- USFWS Designated Critical Habitat Maps
- Mohave Ground squirrel Range maps
- Endangered USFWS: Birds of Conservation Concern

Jericho biologist Lauren Hall and Shay Lawrey conducted a biological resources assessment of the Project area. Both biologists have advanced degrees in biology and several years of survey experience throughout San Bernardino County and southern California.

The surveyors conducted a systematic and comprehensive survey on January 6, 2020 between the hours of 6:30 a.m. and 3:00 p.m., during calm weather. Weather conditions during the survey consisted of clear skies with temperatures ranging from 53 degrees Fahrenheit (° F) to 62° F and light wind <5 mph. The survey area encompassed the entire Project site and offsite improvement areas and included 100 percent coverage of the site with transects spaced ≥ 10 meters apart.

The surveyors also conducted Desert tortoise surveys accordance with the protocols described in the USFWS's 2009 *"Desert Tortoise (Mojave Population) Field Manual: (Gopherus agassizii),"* the 2010 *"Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats,"* and the August 31, 2017 survey protocol update, *"Preparing for Any Action That May Occur Within the Range of The Mojave Desert Tortoise (Gopherus agassizii)"*. Per the USFWS survey protocol, 100 percent visual coverage of the survey area was achieved by walking 10-meter (30-foot) wide belt transects over the entire Project site wherever there was potentially suitable desert tortoise habitat present (i.e. creosote bush scrub and/or allscale scrub habitats), to provide sufficient coverage to find signs of desert tortoise use (e.g., scat, burrows, carcasses, courtship rings, drinking depressions, etc. in addition to live tortoises).

In addition to the 100 percent coverage of any potentially suitable habitat within the Project site, in accordance with the USFWS 2010 *Pre-Project Field Survey Protocol for Potential Desert Tortoise Habitats*. It should be noted that these "zone of influence" transects are no longer required as of the 2017 updated protocol. However, to provide additional sampling of the areas adjacent the Project site, the 200, 400- and 600-meter transects around the perimeter of the Project site were included in the survey where accessible and appropriate. The transect routes were calculated and downloaded to handheld global positioning system (GPS) units that were used to accurately navigate the transects.

During the site assessment, Ms. Hall and Ms. Lawrey also examined natural and non-natural substrates for burrows to determine size, shape, and aspect for suitability for BUOW and to see if any BUOW sign (molted feathers, cast pellets, prey remains, and owl whitewash) was present.

Wildlife species were detected during field surveys by sight, calls, tracks, scat, or other sign. In addition to species observed, expected wildlife usage of the site was determined per known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. The focus of the faunal species surveys was to identify potential habitat for special status wildlife within the project area. Disturbance characteristics and all animal sign encountered on the site are recorded in the results section of this report.

The site was also evaluated for the presence of jurisdictional waters, i.e. waters of the U.S. as regulated by the USACE and RWQCB, and/or streambed and associated riparian habitat as regulated by the CDFW. Evaluation of potential federal jurisdiction followed the regulations set forth in 33CFR part 328 and the USACE guidance documents and evaluation of potential State jurisdiction followed guidance in the Fish and Game Code and A Review of Stream Processes and Forms in Dryland Watersheds (CDFW, 2010).

RESULTS

The database searches identified 34 sensitive species (6 plant, 26 animal, 2 invertebrate) within the *Adelanto* USGS 7.5-minute series quadrangle. The USGS 7.5-minute series quadrangles for *Victorville NW*, *Helendale* and *Victorville* were also part of the database search due to their proximity to the Project site within the *Adelanto* quadrangle. A full summary of these results is outlined in the attached Attachment B. The database searches did not indicate the presence of State- and/or federally-listed threatened or endangered species in the immediate vicinity of the project site nor any designated critical habitat.

Habitat

The site has been used as a trash dump site and there are tire tracks on the parcel indicating human use. The Project site is a creosote bush-dominated shrub community with living vegetation cover at approximately 40 percent, primarily consisting of native creosote (*Larrea tridentate)* with scattered Joshua trees (*Yucca brevifolia*) located in the western portion of the parcel.

Vegetation on site consists of *Larrea tridentata* Shrubland alliance (Sawyer, Keeler-Wolf, 2018), with species including creosote bush, brittlebush (*Encelia farinosa*), mustard (*Brassica tournefortii*), burrow weed (*Ambrosia dumosa*), burrobrush (*Ambrosia salsola*), cholla (*Cylindropuntia* ssp.), and *Schismus* ssp. Numerous Joshua Trees are present within the Survey Area.

Soils are well drained, consisting of Bryman loamy fine sand, 0 to 2 percent slopes (Figure 5). According to the USDA (2015) soil series descriptions: The Bryman series consists of deep, well drained soils that formed in alluvium from dominantly granitic sources. Bryman soils are on terraces and older alluvial fans and have slopes of 0 to 15 percent.

Wildlife

Amphibians and Reptiles

No amphibian or reptile species were observed or otherwise detected during survey and only common species are expected to occur.

Birds

Avian species observed in the project area include the American crow (*Corvus brachyrhynchos*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), northern mockingbird (*Mimus polyglottos*). and common raven (*Corvus corax*).

Mammals

Identification of mammals within the project area was generally determined by physical evidence rather than direct visual identification. This is because 1) many of the mammal species that potentially occur onsite are nocturnal and would not have been active during the survey and 2) no mammal trapping was performed. Desert cottontail (*Sylvilagus audubonii*) was the only mammal species observed during site visit. Common species expected to occur within the project area include coyote (*Canis latrans*), bobcat (*Lynx rufus*), and pallid San Diego pocket mouse (*Chaetodipus fallax pallidus*). A multitude of very small mammal burrows throughout the project site and small mammal tracks were found on site.

Special Status Species and Habitats

An analysis of the likelihood for occurrence of all CNDDB sensitive species documented in the *Adelanto, Victorville NW, Helendale,* and *Victorville* USGS 7.5-minute series quadrangles is provided in Attachment B. This analysis considers species range as well as documentation within the vicinity of the project area and includes the habitat requirements for each species and the potential for their occurrence on the site, based on required habitat elements and range relative to the current site conditions.

No State- and/or federally listed threatened or endangered species, or other sensitive species were observed on site during the field survey. However, there is some habitat within the proposed project footprint, as well as the project vicinity, that may be suitable for the following species.

Mohave ground squirrel – State Threatened

The Mojave ground squirrel is a medium size ground squirrel that feeds on a variety of food, but primarily on leaves and seeds of forbs and shrubs. Invertebrates can also be fed on regularly. The Mojave ground squirrel is active early to mid- March, with the breeding season being July through September, however success is dependent on the amount of fall and winter rainfall. The Mojave ground squirrel is one of two species of the subgenus *Xerospermophilus,* shared with the round-tailed ground squirrel.
The Mojave ground squirrel occupies a small habitat range restricted to the Mojave desert, with habitat in portions of each of the counties of San Bernardino, Inyo, Kern and Los Angeles. The Mojave ground squirrel habitat consist of open desert scrub, alkali desert scrub, Joshua tree, and annual grassland.
They range from Palmdale north to Olancha. The Mojave river marks the eastern extent of the range. They are listed as threatened under the California Endangered Species Act (CESA).

> *Findings*: Per the literature review, the nearest documented Mohave ground squirrel occurrence (June 2005) is approximately 3.8 miles northwest of the project site. The result of the survey was that the project site contains suitable habitat for Mohave ground squirrel, and several very small mammal burrows are on site. Protocol live trapping surveys conducted by a permitted biologist are required to determine if the species is present/absent from the project area.

Burrowing owl – SSC

The western Burrowing Owl (*A.c. hypugaea*) is one of 18 New World Burrowing Owl subspecies, and one of only two in North America. The western BUOW ranges from Texas to California and north to southern Canada. Individuals of resident populations in southern California, northern Mexico, and Florida breed and overwinter in an area without a significant migration (Haug et al. 1993). BUOW are found across American open landscapes, showing activity chiefly in the daytime. In California, preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography and well-drained soils. In addition, BUOW may occur in some agricultural areas, ruderal grassy fields, vacant lots and pastures, and flood control facilities if the surrounding vegetation structure is suitable and there are useable burrows and foraging habitat in proximity.

Unique among North American raptors, the BUOW requires underground burrows or other cavities for nesting during the breeding season and for roosting and cover, year-round. Burrows used by the owls are usually dug by other species termed host burrowers. In California, California ground squirrel (*Spermophilus beecheyi*) and round-tailed ground squirrel (*Citellus tereticaudus*) burrows are frequently used by BUOW but they may use dens or holes dug by other fossorial species and/or human made structures such as cement culverts and pipes.

BUOW have a high fidelity to their birth territory and they often prefer nesting in areas of high burrow densities. Breeding pairs are easily located within the surrounding of their nests (usually 90 feet) due to their territorial behavior. They are active during the day and night and are generally observed in the early morning hours or at twilight.

BUOW breeding season begins February 1 and extends to August 31. Pair formation can begin in February. Peak of the BUOW breeding season, commonly accepted in California, occurs between April 15 and July 15. April to mid-May is when most burrowing owls are in the egg laying and incubation stages. BUOW egg incubation period is about 27-28 days Chick rearing typically occurs between May 15 and July 1. July 15 is

typically considered the late nestling period when most owls are spending time above ground. The non-breeding season (September 1 to January 31)

BUOW are semi-colonial and will sometimes share a burrow for incubation and chick rearing.

The BUOW is not listed under the State or federal ESA but is considered both a State and federal SSC. The BUOW is a migratory bird protected by the international treaty under the Migratory Bird Treaty Act of 1918 and by State law under the California Fish and Game Code (CDFG Code #3513 & #3503.5).

> *Findings*: Per the literature review, the nearest documented BUOW occurrence (April 1929) is approximately 0.6-mile northwest of the Project site. The result of the survey was that no evidence of BUOW was found in the survey area. No BUOW individuals or sign including pellets, feathers or whitewash were observed. Per the definition provided in the *2012 CDFG Staff Report on Burrowing Owl Mitigation*, "Burrowing owl habitat generally includes, but is not limited to, short or sparse vegetation (at least at some time of year), presence of burrows, burrow surrogates or presence of fossorial mammal dens, well-drained soils, and abundant and available prey."
>
> Given this definition, the project site and immediate vicinity contains potentially suitable habitat for BUOW. The assessment survey was structured, in part, to detect BUOW. The survey consisted of walking transects spaced to provide 100% visual coverage of the project site. The result of the survey was that no evidence of BUOW was found in the survey area. The very small mammal burrows found on site are not the appropriate size, shape or aspect for BUOW. No BUOW individuals or sign including pellets, feathers or whitewash were observed. Therefore, BUOW are currently absent from the project area.

Desert Tortoise – Federally Threatened, State Threatened

The desert tortoise is a State and federally-listed threatened species. Throughout its range it is threatened by habitat loss, domestic grazing, predation, collections, and increased mortality rates. The desert tortoise is typically found in creosote bush scrub. They are most often found on level or sloped ground where the substrate is firm but not too rocky. Tortoise burrows are typically found at the base of shrubs, in the sides of washes and in hillsides. Because a single tortoise may have many burrows distributed throughout its home range, it is not possible to predict exact numbers of individuals on a site based upon burrow numbers. Per the USFWS desert tortoise Critical Habitat overlay, the Project site is not within any USFWS designated desert tortoise Critical Habitat. Furthermore, the Project site is not within a BLM designated Desert Wildlife Management Area (USFWS 2011). Therefore, the habitat surrounding the site would be characterized as Category 3 Habitat, per the BLM categorization of desert tortoise habitat on public lands.

> *Findings*: Per the literature review, the nearest documented desert tortoise occurrence (April 2004) is approximately 0.6 miles northwest of the project site. The result of the survey was that habitat on site is suitable for desert tortoise but that no evidence of desert tortoise was found in the survey area. No desert tortoise individuals or sign including burrows, scat, courting rings, carcasses, or drinking depressions were found on site. Desert tortoise are therefore currently absent from the project area.

Waters of the U.S.

The USACE has authority to permit the discharge of dredged or fill material in waters of the U.S. under Section 404 CWA. WoUS are defined as: "All waters used in interstate or foreign commerce; all interstate waters including interstate wetlands; all other waters such as intrastate lakes, rivers, streams (including intermittent and ephemeral streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, where the use, degradation, or destruction of which could affect interstate

commerce; impoundments of these waters; tributaries of these waters; or wetlands adjacent to these waters" (Section 404 of the CWA; 33 CFR 328.3 (a). CWA jurisdiction exists over the following:

1. all traditional navigable waters (TNWs);
2. all wetlands adjacent to TNWs;
3. non-navigable tributaries of TNWs that are relatively permanent waters (RPWs) i.e., tributaries that typically flow year-round or have continuous flow at least seasonally; and
4. every water body determined to have a significant nexus with TNWs.

No drainages or other water features were identified within the project site that would meet the definition of WoUS.

USACE Wetlands

Areas meeting all three parameters of hydrophitic vegetation, hydric soils, and/or wetland hydrology would be designated as USACE wetlands. None of the three required parameters are present within the project site. Therefore, no wetlands were identified in the study area during this investigation based of the absence of hydrophitic vegetation, hydric soil indicators and/or wetland hydrology.

State Lake/Streambed

The project site is situated on flat to gently-sloped terrain consisting of disturbed habitat and there are no drainages or other water features that have a definable bed and bank or associated riparian vegetation that would be subject to the FGC under the jurisdiction of the CDFW.

CONCLUSIONS

Sensitive Biological Resources

No State- and/or federally-listed threatened or endangered species, or other sensitive species were observed on site during the field survey.

The site contains suitable habitat for BUOW, desert tortoise, and Mohave ground squirrel.

Desert tortoise and BUOW

Although the Desert tortoise and BUOW were determined to be absent at the time of survey, the following precautionary measure is recommended.

- A qualified biologist shall develop a Worker Environmental Awareness Program (WEAP) that will include information on general and special status species within the project area, identification of these species and their habitats, techniques being implemented during construction to avoid impacts to species, consequences of killing or injuring an individual of a listed species, and reporting procedures when encountering listed or sensitive species. Construction crews, foremen, and other personnel potentially working on site will attend this education program and place their name on a sign-in sheet. This briefing shall include provisions of any requirements required for the project. The contractor shall implement Worker Environmental Awareness Program training on the first day of work and periodically throughout construction as needed.

- Preconstruction surveys for BUOW and DT should be conducted no more than 30 days prior to new ground disturbance within each phase of development.

- A biological monitor should be present during the initial ground disturbing activities (clearing, grubbing and initial grading) to ensure no sensitive resources wander onto the site and to ensure no impacts will result during construction.

Mohave ground squirrel

The Project site contains suitable habitat for Mohave ground squirrel, and several very small mammal burrows are on site.

- Recommendation: Conduct protocol presences/absence surveys for Mohave ground squirrel.

Nesting Birds

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 U.S.C 703-711) provides protection for nesting birds that are both residents and migrants whether or not they are considered sensitive by resource agencies. The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed under 50 CFR 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). The direct injury or death of a migratory bird, due to construction activities or other construction-related disturbance that causes nest abandonment, nestling abandonment, or forced fledging would be considered a take under federal law. The USFWS, in coordination with the CDFW administers the MBTA. CDFW's authoritative nexus to MBTA is provided in FGC Sections 3503.5 which protects all birds of prey and their nests and FGC Section 3800 which protects all non-game birds that occur naturally in the State.

Vegetation suitable for nesting birds does exist within and adjacent to the Project areas and most birds are protected by the MBTA. Therefore, the following measure is recommended:

- Bird nesting season generally extends from February 1 through September 15 in southern California and specifically, April 15 through August 31 for migratory passerine birds. In general, Projects should be constructed outside of this time to avoid impacts to nesting birds. If a Project cannot be constructed outside of nesting season, the project site shall be surveyed for nesting birds by a qualified avian biologist within three (3) days prior to initiating the construction activities.

  If active nests are found during the pre-construction nesting bird surveys, a Nesting Bird Plan (NBP) will be prepared and implemented. At a minimum, the NBP will include guidelines for addressing active nests, establishing buffers, monitoring, and reporting. The NBP will include a copy of maps showing the location of all nests and an appropriate buffer zone around each nest sufficient to protect the nest from direct and indirect impact. The size and location of all buffer zones, if required, shall be determined by the biologist, and shall be based on the nesting species, its sensitivity to disturbance, and expected types of disturbance. The nests and buffer zones shall be field checked weekly by a qualified biological monitor. The approved buffer zone shall be marked in the field with construction fencing, within which no vegetation clearing or ground disturbance shall commence until the qualified biologist has determined the young birds have successfully fledged

Sensitive Habitat

The City of Adelanto enforces Tile 8, Division 9 of the San Bernardino County Code that requires that every Joshua Tree proposed for removal be inspected by the local jurisdiction to ensure that the Joshua Tree is not a "specimen" class tree requiring preservation and transplantation. There are two recognized sub species of Joshua trees: *Yucca brevifolia* and *Y. b. jaegeriana*. *Y. b. brevifolia* are found in the western and southern

Mojave Desert and are the largest of the Joshua trees. Per the County's development code, Specimen Tree size are defined as meeting with one or more of the following criteria: (I) A circumference measurement equal to or greater than 50 inches measured at 4.5 feet above natural grade level. (II) Total tree height of 15 feet or greater (III) Trees possessing a bark-like trunk; (IV) A cluster of 10 or more individual trees, of any size, growing in close proximity to each other.

There are numerous Joshua Trees on site (see photos in Attachment 3). For compliance with the City and County codes, the following is recommended:

- All Projects should be designed to avoid sensitive and/or protected Joshua Trees as per the City of Adelanto and the County of San Bernardino ordinances. This includes equipment staging and storage areas. In the event said sensitive desert plants cannot be avoided, the applicant shall obtain a Native Vegetation Removal Permit and Joshua Tree Survey as part of the pre-construction planning. The survey should first identify all Joshua Trees and other native vegetation as recognized by the City and or County ordinances and assess their type and health. The applicant should then work to find solutions to avoid these resources; if the resources cannot be avoided, applicant will develop a relocation plan and obtain permits through all applicable entities.

Jurisdictional Waters

No jurisdictional features subject to the CWA or FGC under the jurisdictions of the USACE, RWQCB, or CDFW exist within the project area. The project site is located entirely outside of any jurisdictional areas and no permanent or temporary impacts to jurisdictional features will result from the project. Therefore, no permits or authorizations from the USACE, RWQCB, or CDFW will be required.

Jericho appreciates the opportunity to continue to be of service. If you have any questions or need any clarifications, feel free to contact me at (909) 915-5900 or at shay@jericho-systems.com

Sincerely,

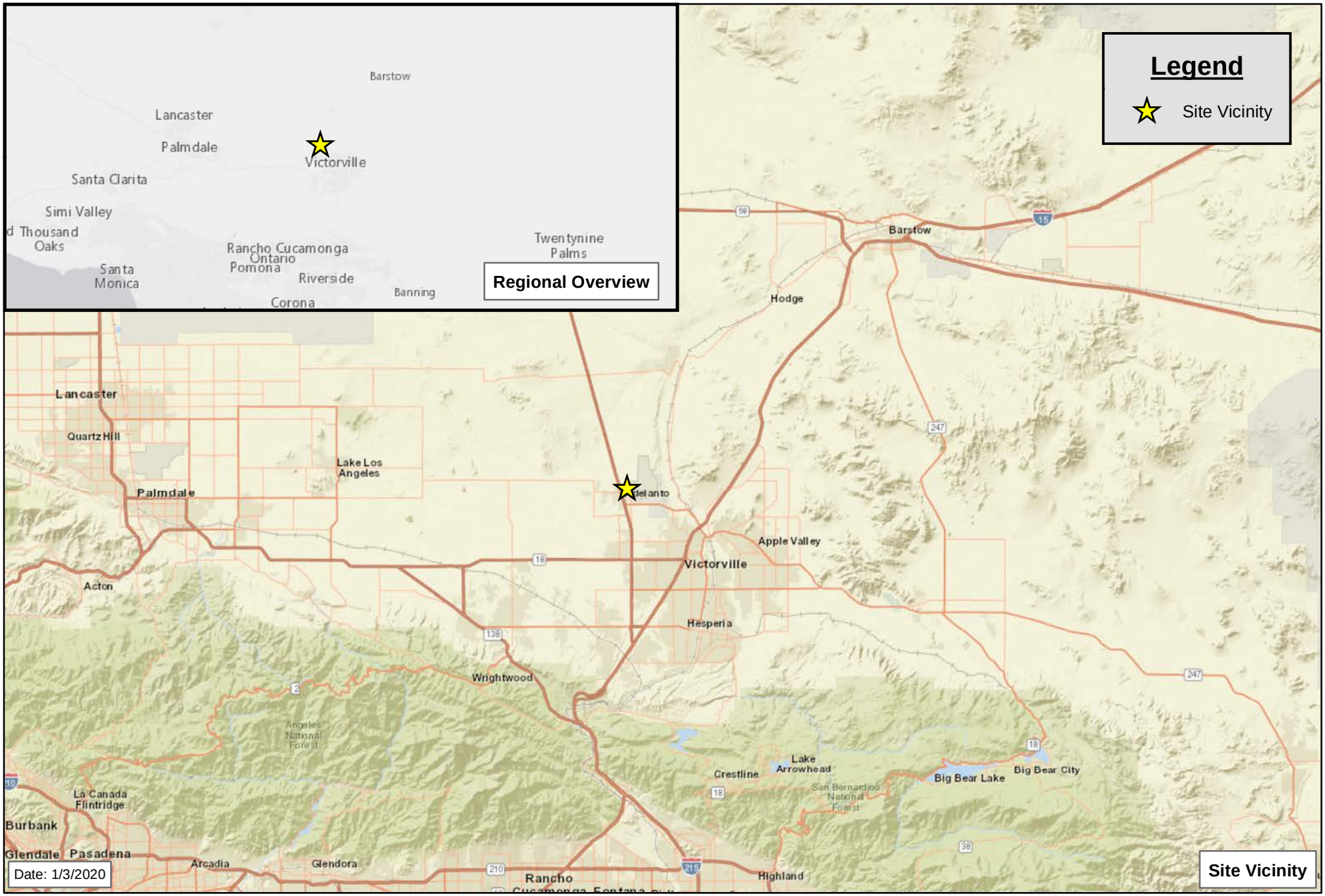


Shay Lawrey, President

Attachments:

Attachment 1 - Figures
Attachment 2 – Table of Potential to Occur
Attachment 3 – Site Photos

Attachment 1
Figures

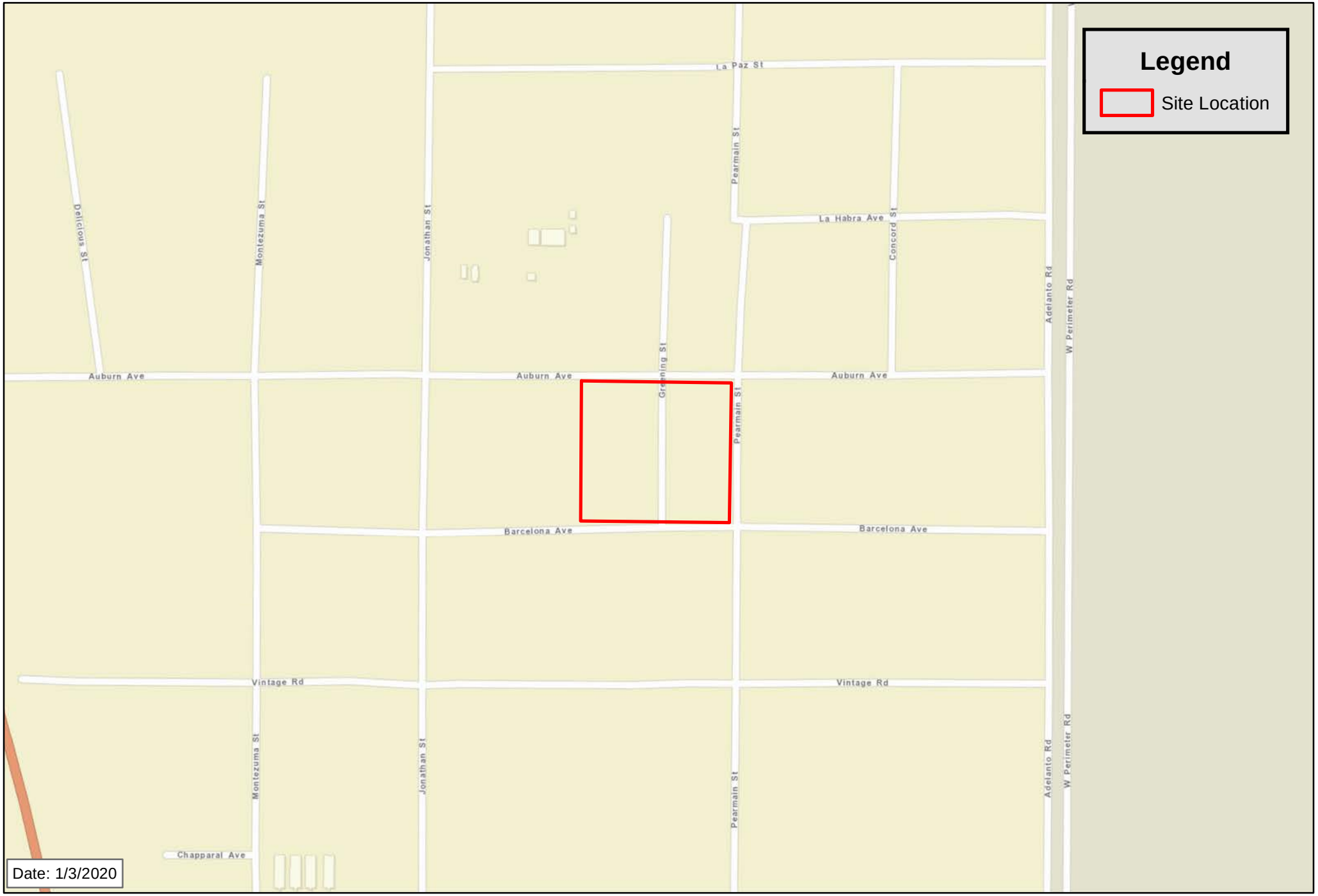


Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c) OpenStreetMap contributors, and the GIS User Community

JERICHO SYSTEMS

Figure 1 - Regional Overview
Site Vicinity

Cultivation Development
City of Adelanto (TDA)



0 0.05 0.1 0.2 0.3 0.4 Miles

Imagery Date: 8/6/2017

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, (c)

JERICHO SYSTEMS INCORPORATED

1 inch = 523 feet

Figure 2
Site Location

Cultivation Development
City of Adelanto (TDA)



0 0.03 0.06 0.12 0.18 0.24 Miles

1 inch = 333 feet

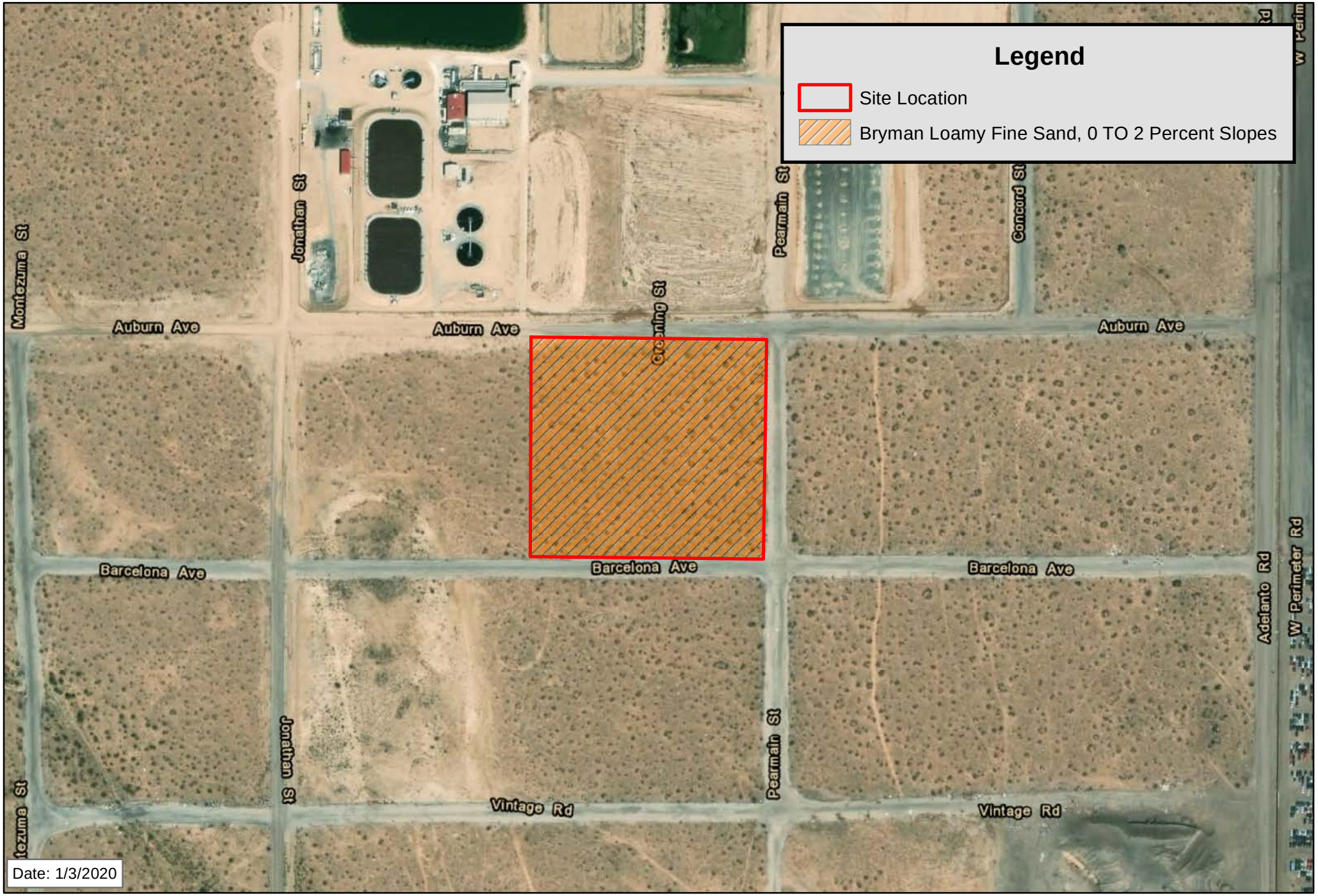
Imagery Date: 10/9/2018

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS

Figure 3
Site Location

Cultivation Development
City of Adelanto (TDA)



0 0.03 0.06 0.12 0.18 0.24 Miles

Imagery Date: 10/9/2018

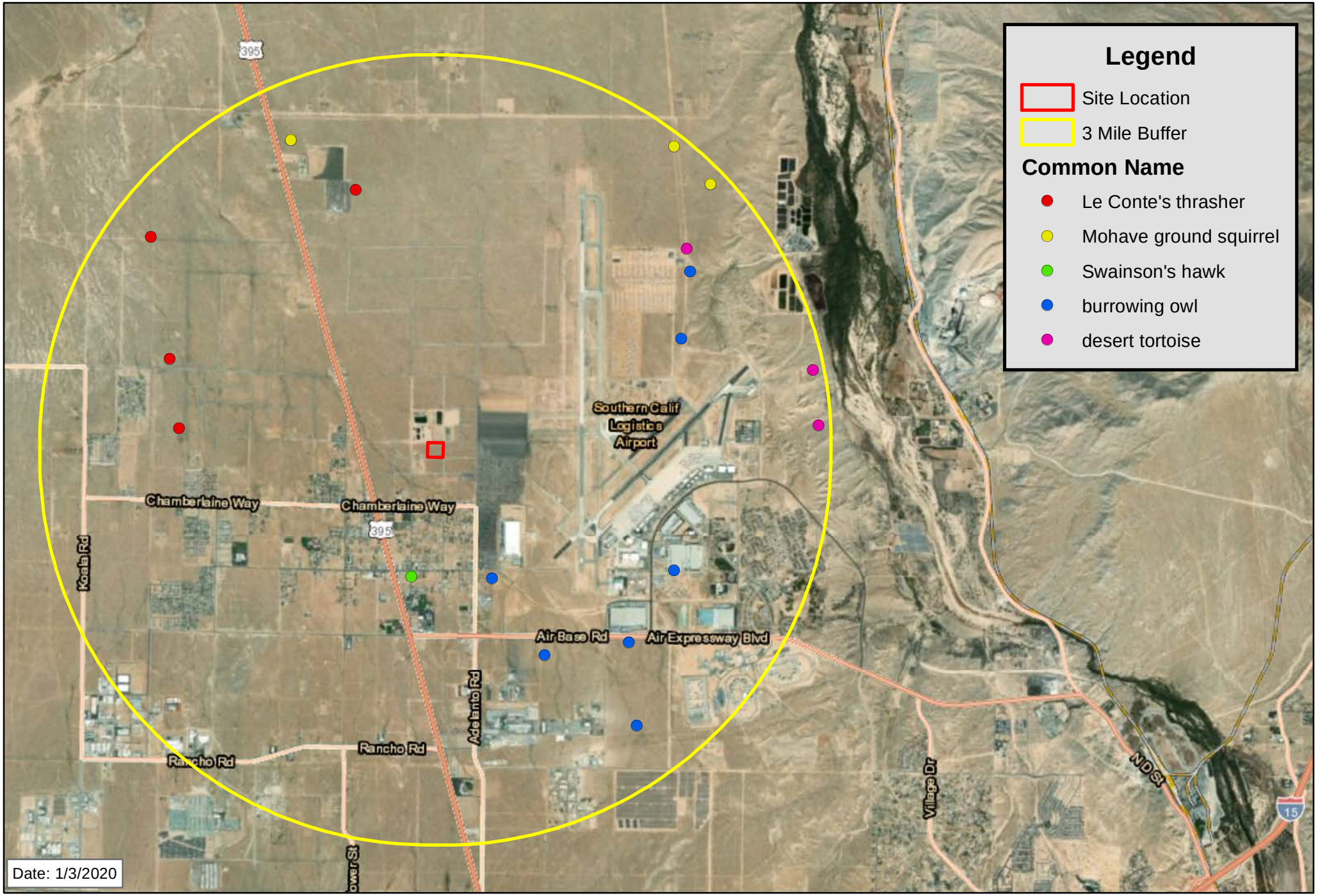
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS

1 inch = 333 feet

Figure 4
Soils

Cultivation Development
City of Adelanto (TDA)



0 0.475 0.95 1.9 2.85 3.8 Miles

Imagery Date: 10/9/2018

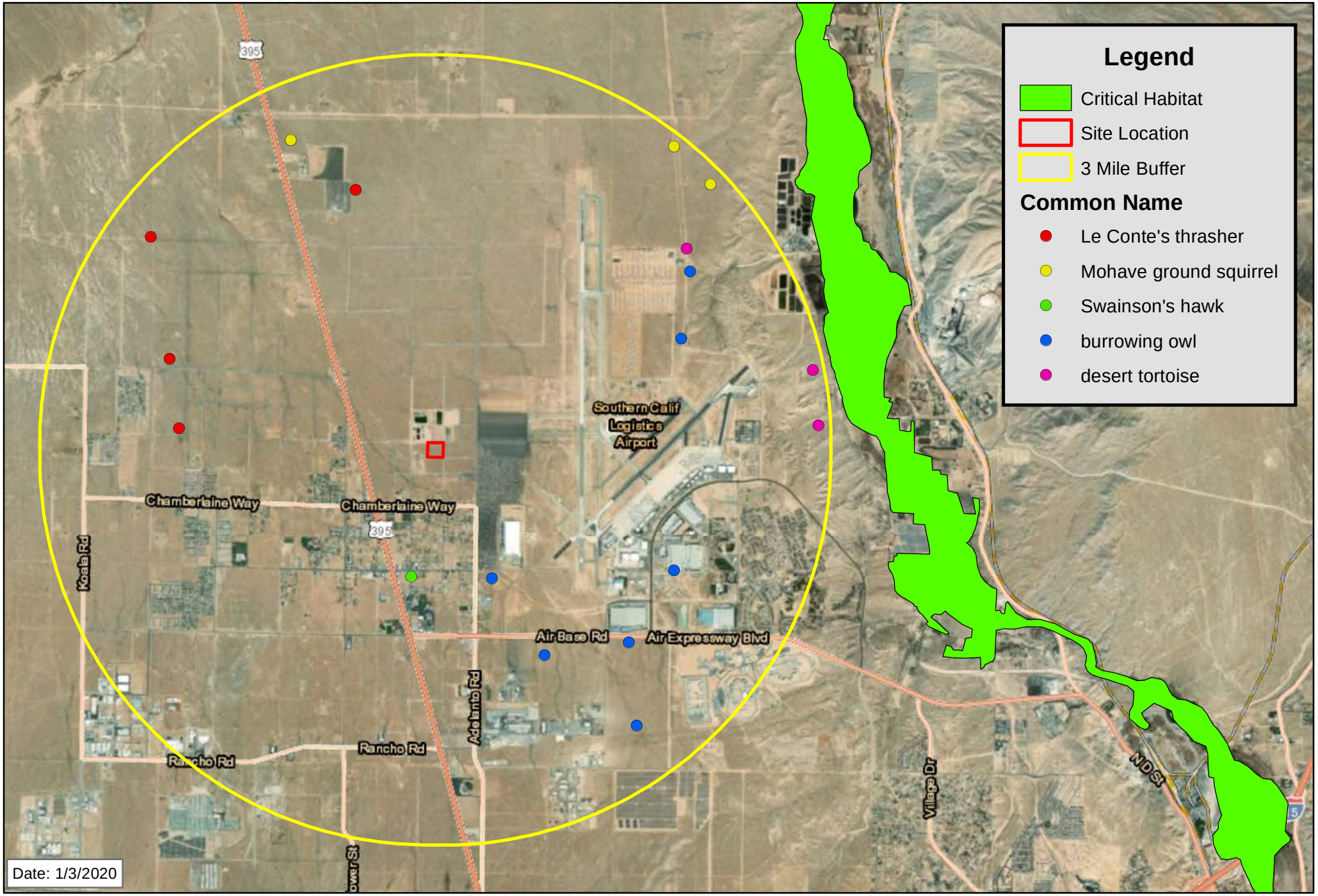
Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS INCORPORATED

1 inch = 5,021 feet

Figure 5
3 Mile CNDDB

Cultivation Development
City of Adelanto (TDA)



0 0.475 0.95 1.9 2.85 3.8 Miles

Imagery Date: 10/9/2018

Service Layer Credits: Esri, HERE, Garmin, (c) OpenStreetMap contributors
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS,

JERICHO SYSTEMS

1 inch = 5,021 feet

Figure 6
Critical Habitat

Cultivation Development
City of Adelanto (TDA)

Attachment 2
Table of Potential to Occur

Potential To Occur

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Plants					
Canbya candida	white pygmy-poppy	None None	USFS: Sensitive CNPS: 4.2	Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland in sandy/gravelly soils. 600-1460 m.	Sandy soils in desert scrub habitat is on site. Potential to occur is moderate.
Diplacus mohavensis	Mojave monkeyflower	None None	BLM: Sensitive CNPS: 1B.2	Desert wash, Joshua tree woodland, Mojavean desert scrub. Dry sandy or rocky washes along the Mojave river. 660-1270 m.	Desert wash is not on site, but dry sandy soils in Joshua tree woodland are. Potential to occur is low-moderate.
Eremothera boothii ssp. boothii	Booth's evening-primrose	None None	CNPS: 2B.3	Joshua tree woodland, pinyon and juniper woodland. 285-2290 m.	Joshua tree woodland is on site. Potential to occur is moderate.
Pediomelum castoreum	Beaver Dam breadroot	None None	BLM: Sensitive CNPS: 1B.2	Desert wash, Joshua tree woodland, Mojavean desert scrub in sandy soils. 605-1485 m.	Sandy soils in Joshua tree woodland is on site. Potential to occur is moderate.
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None None	USFS: Sensitive CNPS: 1B.2	Chaparral, cismontane woodland, lower montane coniferous forest in gravelly soils near streambanks. 425-2000 m.	Habitat for this species is not on site. Potential to occur is low.
Symphyotrichum defoliatum	San Bernardino aster	None None	BLM: Sensitive USFS: Sensitive CNPS: 1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. 3-2045 m.	Habitat for this species is not on site. Potential to occur is low.
Birds					
Accipiter cooperii	Cooper's hawk	None None	CDFW: Watch List IUCN: Least Concern	Cismontane woodland, Riparian forest, Riparian woodland, Upper montane coniferous forest Woodland, chiefly of open, interrupted or marginal type.	Cismontane woodland or riparian forest is not present on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Agelaius tricolor	tricolored blackbird	None Threatened	BLM: Sensitive CDFW: Species of Special Concern Endangered USFWS: Birds of Conservation Concern	Freshwater marsh, Marsh & swamp, Swamp, Wetland Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Wetland habitat is not on site. Potential to occur is low.
Aquila chrysaetos	golden eagle	None None	BLM: Sensitive CDFW: Fully Protected CDFW: Watch List IUCN: Least Concern USFWS: Birds of Conservation Concern	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon & juniper woodlands, Upper montane coniferous forest, Valley & foothill grassland Rolling foothills, mountain areas, sage-juniper flats, and desert.	Montane habitat is not on site. Potential to occur is low.
Athene cunicularia	burrowing owl	None None	BLM: Sensitive CDFW: Species of Special Concern IUCN: Least Concern USFWS: Birds of Conservation Concern	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Habitat suitable for the species is on site. Potential to occur is moderate.
Buteo swainsoni	Swainson's hawk	None Threatened	BLM: Sensitive IUCN: Least Concern USFWS: Birds of Conservation Concern	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, & agricultural or ranch lands with groves or lines of trees.	The project does not occur within the species' current geographic distribution. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	BLM: Sensitive USFS: Sensitive USFWS: Birds of Conservation Concern	Riparian forest Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Riparian habitat does not occur on site. Potential to occur is low.
Empidonax traillii extimus	southwestern willow flycatcher	Endangered Endangered		Riparian woodland Riparian woodlands in Southern California.	Riparian habitat does not occur on site. Potential to occur is low.
Falco mexicanus	prairie falcon	None None	CDFW: Watch List IUCN: Least Concern USFWS: Birds of Conservation Concern	Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran Desert scrub, Valley & foothill grassland. Inhabits dry, open terrain, either level or hilly.	Mojavean desert scrub habitat is on site. Potential to occur is moderate.
Icteria virens	yellow-breasted chat	None None	CDFW: Species of Special Concern IUCN: Least Concern	Riparian forest, Riparian scrub, Riparian woodland Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses.	Riparian habitat does not occur on site. Potential to occur is low.
Lanius ludovicianus	loggerhead shrike	None None	CDFW: Species of Special Concern IUCN: Least Concern USFWS: Birds of Conservation Concern	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes.	Joshua tree woodland is on site. Potential to occur is moderate.
Piranga rubra	summer tanager	None None	CDFW: Species of Special Concern IUCN: Least Concern	Riparian forest Summer resident of desert riparian along lower Colorado River, and locally elsewhere in California deserts.	Riparian habitat does not occur on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Setophaga petechia	yellow warbler	None None	CDFW: Species of Special Concern USFWS: Birds of Conservation Concern	Riparian forest, Riparian scrub, Riparian woodland Riparian plant associations in close proximity to water. Also nests in montane shrubbery in open conifer forests in Cascades and Sierra Nevada.	Riparian habitat does not occur on site. Potential to occur is low.
Toxostoma lecontei	Le Conte's thrasher	None None	CDFW: Species of Special Concern IUCN: Least Concern USFWS: Birds of Conservation Concern	Desert wash, Mojavean desert scrub, Sonoran desert scrub Desert resident, primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats.	Mojavean desert scrub habitat is on site. Potential to occur is moderate.
Vireo bellii pusillus	least Bell's vireo	Endangered Endangered	IUCN: Near Threatened	Riparian forest, Riparian scrub, Riparian woodland Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Riparian habitat does not occur on site. Potential to occur is low.
Mammals					
Chaetodipus fallax pallidus	pallid San Diego pocket mouse	None None	CDFW: Species of Special Concern	Desert wash, Pinon & juniper woodlands, Sonoran desert scrub and desert border areas.	Desert wash/pinyon and juniper woodland habitats are not on site. Potential to occur is low.
Corynorhinus townsendii	Townsend's big-eared bat	None None	BLM: Sensitive CDFW: Species of Special Concern IUCN: Least Concern USFS: Sensitive	Broadleaved upland forest, Chaparral, Chenopod scrub, Great Basin grassland, Great Basin scrub, Joshua tree woodland, Lower montane coniferous forest, Meadow & seep, Mojavean desert scrub, Riparian forest, Riparian woodland, Sonoran desert scrub, Sonoran thorn woodland, Upper montane coniferous forest, Valley & foothill grassland. Throughout California in a wide variety of habitats. Most common in mesic sites.	Mesic habitat does not occur on site. Potential to occur is low.
Lasionycteris noctivagans	silver-haired bat	None None	IUCN: Least Concern	Lower montane coniferous forest, old-growth, riparian forest . Primarily a coastal and montane forest dweller, feeding over streams, ponds & open brushy areas.	Riparian/montane habitat does not occur on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Lasiurus cinereus	hoary bat	None None	IUCN: Least Concern	Broadleaved upland forest, Cismontane woodland, Lower montane coniferous forest, North coast coniferous forest. Prefers open habitats or habitat mosaics, with access to trees for cover and open areas or habitat edges for feeding.	Open habitat with trees occurs on site. Potential to occur is moderate.
Microtus californicus mohavensis	Mohave river vole	None None	CDFW: Species of Special Concern	Riparian scrub . Occurs only in weedy herbaceous growth in wet areas along the Mojave River. May be found in some irrigated pastures.	Riparian habitat does not occur on site. Potential to occur is low.
Xerospermophilus mohavensis	Mohave ground squirrel	None Threatened	BLM: Sensitive IUCN: Vulnerable	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub Open desert scrub, alkali scrub & Joshua tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert.	
Reptiles					
Emys marmorata	western pond turtle	None None	BLM: Sensitive CDFW: Species of Special Concern IUCN: Vulnerable USFS: Sensitive	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Aquatic habitat is not on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Gopherus agassizii	desert tortoise	Threatened Threatened	IUCN: Vulnerable	Joshua tree woodland, Mojavean desert scrub, Sonoran desert scrub. Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat.	Habitat suitable for this species is on site. Potential to occur is moderate.
Phrynosoma blainvillii	coast horned lizard	None None	BLM: Sensitive CDFW: Species of Special Concern IUCN: Least Concern	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Habitat suitable for this species is on site. Potential to occur is moderate.
Insects					
Plebulina emigdionis	San Emigdio blue butterfly	None None	USFS: Sensitive	Found in desert canyons & along riverbeds in Inyo, Kern, Los Angeles, and San Bernardino counties.	Riparian habitat does not occur on site. Potential to occur is low.
Amphibians					
Anaxyrus californicus	arroyo toad	Endangered None	CDFW: Species of Special Concern IUCN: Endangered	Desert wash, Riparian scrub, Riparian woodland, South coast flowing waters, South coast standing waters Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.	Riparian habitat does not occur on site. Potential to occur is low.

Scientific Name	Common Name	Federal/ State Ranking	Other Rankings	Habitat	Potential to Occur
Rana draytonii	California red-legged frog	Threatened None	CDFW: Species of Special Concern IUCN: Vulnerable	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Riparian habitat does not occur on site. Potential to occur is low.
Fish					
Siphateles bicolor mohavensis	Mohave tui chub	Endangered Endangered	AFS: Endangered CDFW: Fully Protected	Aquatic, Artificial flowing waters, Artificial standing waters Endemic to the Mojave River basin, adapted to alkaline, mineralized waters.	Aquatic habitat does not occur on site. Potential to occur is none.
Mollusks					
Helminthoglypta mohaveana	Victorville shoulderband	None None	IUCN: Near Threatened	Aquatic, Great Basin flowing waters Known only from along the Mojave River in San Bernardino County.	Riparian habitat does not occur on site. Potential to occur is low.

Source: USFWS/NMFS- 2019 IPaC species list; CNDDB 2019; CNPS 2019.

Coding and Terms

E = Endangered T = Threatened C = Candidate FP = Fully Protected SSC = Species of Special Concern R = Rare

State Species of Special Concern: An administrative designation given to vertebrate species that appear to be vulnerable to extinction because of declining populations, limited acreages, and/or continuing threats. Raptor and owls are protected under section 3502.5 of the California Fish and Game code: "It is unlawful to take, possess or destroy any birds in the orders Falconiformes or Strigiformes or to take, possess or destroy the nest or eggs of any such bird."

Global Rankings (Species or Natural Community Level):

G1 = Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.
G2 = Imperiled – At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.
G3 = Vulnerable – At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.
G4 = Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
G5 = Secure – Common; widespread and abundant.

Subspecies Level: Taxa which are subspecies or varieties receive a taxon rank (T-rank**)** attached to their G-rank. Where the G-rank reflects the condition of the entire species, the T-rank reflects the global situation of just the subspecies. For example: the Point Reyes mountain beaver, *Aplodontia rufa* ssp. *phaea* is ranked G5T2. The G-rank refers to the whole species range i.e., *Aplodontia rufa.* The T-rank refers only to the global condition of ssp. *phaea*.

State Ranking:

S1 = Critically Imperiled – Critically imperiled in the State because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the State.
S2 = Imperiled – Imperiled in the State because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the State.
S3 = Vulnerable – Vulnerable in the State due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the State.
S4 = Apparently Secure – Uncommon but not rare in the State; some cause for long-term concern due to declines or other factors.
S5 = Secure – Common, widespread, and abundant in the State.

California Rare Plant Rankings (CNPS List):

1A = Plants presumed extirpated in California and either rare or extinct elsewhere.
1B = Plants rare, threatened, or endangered in California and elsewhere.
2A = Plants presumed extirpated in California, but common elsewhere.
2B = Plants rare, threatened, or endangered in California, but more common elsewhere.
3 = Plants about which more information is needed; a review list.
4 = Plants of limited distribution; a watch list.

Threat Ranks:

.1 = Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 = Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
.3 = Not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

Attachment 3
Site Photos



Photo 1 – View from south of the site, on Barcelona Ave. facing north, toward Aquarion Services; water utility company



Photo 2 – View from the west, facing east toward Southern California Logistics Airport



Photo 3 – View from the north on Auburn Ave facing south



Photo 4 – View from the east on Pearmain St. facing west



Photo 5 – native creosote bush (*Larrea tridentate*)



Photo 6 – Joshua Tree 340 35’35” N, 1170 24’ 24” W



Photo 7 – Joshua Tree: 34° 35’ 32” N, 117° 24’ 23” W



Photo 8 - Joshua Tree: 34° 35’ 34” N, 117° 24’ 23” W



Photo 9 - Joshua Tree: 34° 35’ 36” N, 117° 24’ 23” W



Photo 10 - Joshua Tree: 34° 35’ 47” N, 117° 24’ 33” W



Photo 11 - Joshua Tree: 34° 35’ 17” N, 117° 24’ 50” W



Photo 12 - Joshua Tree: 34° 35’ 35” N, 117° 24’ 23” W



Photo 13 - Joshua Tree: 34° 35’ 36” N, 117° 24’ 24” W



Photo 14 - Joshua Tree: 34° 35’ 34” N, 117° 24’ 25” W



Photo 15 - Joshua Tree: 34° 35’ 34” N, 117° 24’ 24” W



Photo 16 - Joshua Tree: 34° 35’ 35” N, 117° 24’ 25” W



Photo 17 - Joshua Tree: 34° 35’ 35” N, 117° 24’ 27” W



Photo 18 - Joshua Tree: 34° 35’ 35” N, 117° 24’ 26” W



Photo 19 - Joshua Tree: 34° 35’ 36” N, 117° 24’ 27” W

APPENDIX 3

HISTORICAL/ARCHAEOLOGICAL RESOURCES SURVEY REPORT

ASSESSOR'S PARCEL NUMBER 0459-053-53

City of Adelanto
San Bernardino County, California

For Submittal to:

Development Services Department, Planning Division
City of Adelanto
11600 Air Expressway
Adelanto, CA 92301

Prepared for:

Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405

Prepared by:

CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324

Bai "Tom" Tang, Principal Investigator
Michael Hogan, Principal Investigator

February 19, 2020
CRM TECH Contract No. 3375

Title: Historical/Archaeological Resources Survey Report: Assessor's Parcel Number 0459-053-53, City of Adelanto, San Bernardino County, California

Author(s): Bai "Tom" Tang, Principal Investigator/Historian
Deirdre Encarnación, Archaeologist/Report Writer
Daniel Ballester, Archaeologist/Field Director
Nina Gallardo, Archaeologist/Native American Liaison

Consulting Firm: CRM TECH
1016 East Cooley Drive, Suite A/B
Colton, CA 92324
(909) 824-6400

Date: February 19, 2020

For Submittal to: Development Services Department, Planning Division
City of Adelanto
11600 Air Expressway
Adelanto, CA 92301
(760) 246-2300

Prepared for: Kaitlyn Dodson-Hamilton, Vice President
Tom Dodson and Associates
2150 N. Arrowhead Avenue
San Bernardino, CA 92405
(909) 882-3612

USGS Quadrangle: Adelanto, Calif., 7.5' quadrangle (Section 21, T6N R5W, San Bernardino Baseline and Meridian)

Project Size: Approximately 8.34 acres

Keywords: Victor Valley, southern Mojave Desert; Phase I historical/archaeological resources survey; Site 3575-1H (temporary designation pending assignment of official site number): historic-period refuse scatter; no "historical resources" under CEQA

MANAGEMENT SUMMARY

In January and February 2020, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study on approximately 8.34 acres of undeveloped land in the City of Adelanto, San Bernardino County, California. The subject property of the study, Assessor's Parcel Number 0459-053-53, is located on the west side of Pearmain Street and between Auburn Avenue and Barcelona Avenue, in the southeast quarter of Section 21, T6N R5W, San Bernardino Baseline and Meridian. The study is part of the environmental review process for the proposed construction of a medical cannabis cultivation and processing facility on the property, which will consist of eight 20,000-square-foot buildings with associated parking spaces, landscaping, and other infrastructure improvements.

The City of Adelanto, as the lead agency for the project, required the study in compliance with the California Environmental Quality Act (CEQA). The purpose of this study is to provide the City with the necessary information and analysis to determine whether the project would cause a substantial adverse change to any "historical resources," as defined by CEQA, that may exist in or around the project area. In order to identify such resources, CRM TECH conducted a historical/ archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level field survey.

During the field survey, a small refuse scatter dating to the circa 1920s to 1930s was recorded within the project boundaries and was designated temporarily as Site 3575-1H, pending the assignment of an official site number. As a surface scatter of common household refuse of unknown origin, and in the absence of an exceptional quantity or quality of the artifacts, this site does not appear to meet any of the criteria for listing in the California Register of Historical Resources. Consequently, it does not qualify as a "historical resource" under CEQA provisions. No other potential "historical resources" were encountered within the project area.

Based on these findings, CRM TECH recommends to the City of Adelanto a finding of *No Impact* regarding "historical resources." No further cultural resources investigation is recommended for the 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.

TABLE OF CONTENTS

MANAGEMENT SUMMARY i
INTRODUCTION 1
SETTING 4
Current Natural Setting 4
Cultural Setting 5
Prehistoric Context 5
Ethnohistoric Context 6
Historic Context 7
RESEARCH METHODS 7
Records Search 7
Historical Research 8
Sacred Lands Records Search 8
Field Survey 8
RESULTS AND FINDINGS 8
Records Search 8
Historical Research 10
Sacred Lands Records Search 11
Field Survey 12
DISCUSSION 12
CONCLUSION AND RECOMMENDATIONS 13
REFERENCES 14
APPENDIX 1: Personnel Qualifications 16
APPENDIX 2: Sacred Lands File Search 20
APPENDIX 3: California Historical Resources Inventory Record Forms 24

LIST OF FIGURES

Figure 1. Project vicinity 1
Figure 2. Project area 2
Figure 3. Aerial view of the project area 3
Figure 4. Overview of the project area 4
Figure 5. Previous cultural resources studies 9
Figure 6. The project area and vicinity in 1853-1855 10
Figure 7. The project area and vicinity in 1920-1932 11
Figure 8. The project area and vicinity in 1952 11
Figure 9. Historic-period refuse found at Site 3575-1H 12

INTRODUCTION

In January and February 2020, at the request of Tom Dodson and Associates, CRM TECH performed a cultural resources study on approximately 8.34 acres of undeveloped land in the City of Adelanto, San Bernardino County, California (Fig. 1). The subject property of the study, Assessor's Parcel Number 0459-053-53, is located on the west side of Pearmain Street and between Auburn Avenue and Barcelona Avenue, in the southeast quarter of Section 21, T6N R5W, San Bernardino Baseline and Meridian (Figs. 2, 3).

The study is part of the environmental review process for the proposed construction of a medical cannabis cultivation and processing facility on the property, which will consist of eight 20,000-square-foot buildings with associated parking spaces, landscaping, and other infrastructure improvements. The City of Adelanto, 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 this study is to provide the City with the necessary information and analysis to determine whether the project would cause a substantial adverse change to any "historical resources," as defined by CEQA, that may exist in or around the project area.

In order to identify such resources, CRM TECH conducted a historical/archaeological resources records search, pursued historical background research, contacted Native American representatives, and carried out an intensive-level 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.

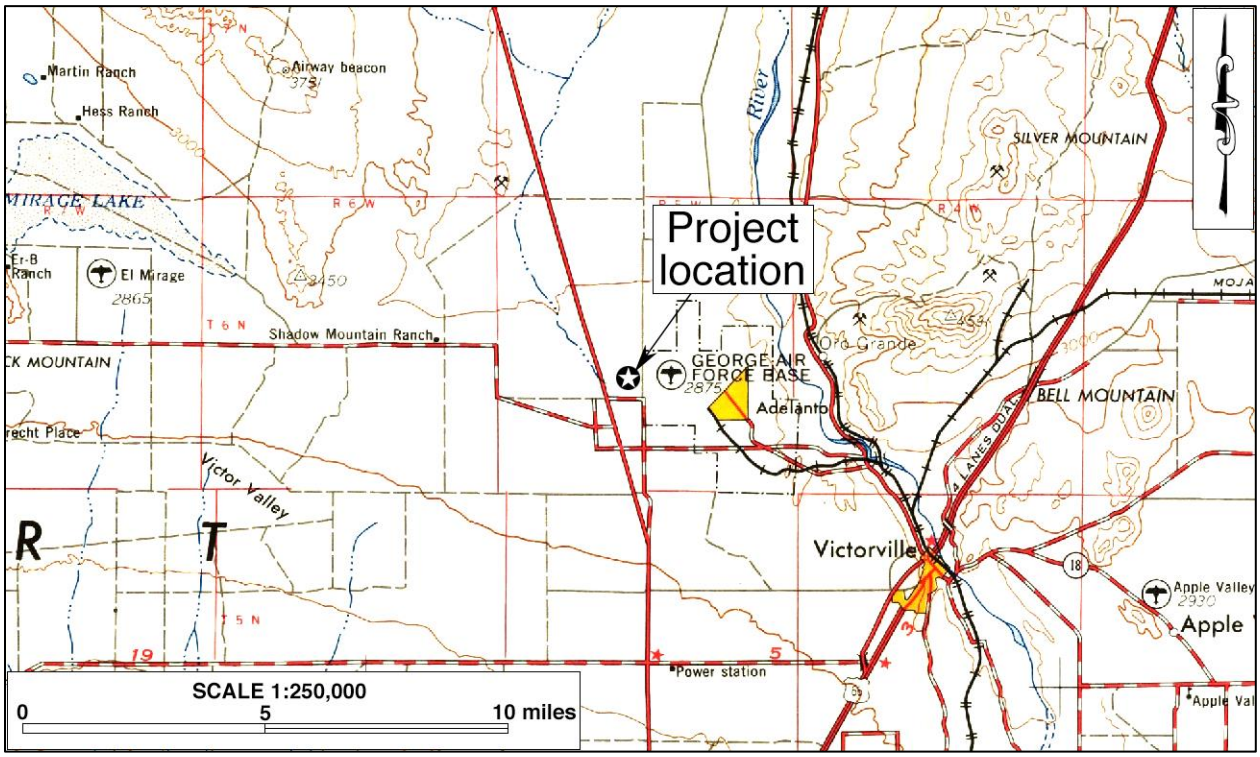


Figure 1. Project vicinity. (Based on USGS San Bernardino, Calif., 120'x60' quadrangle [USGS 1969])

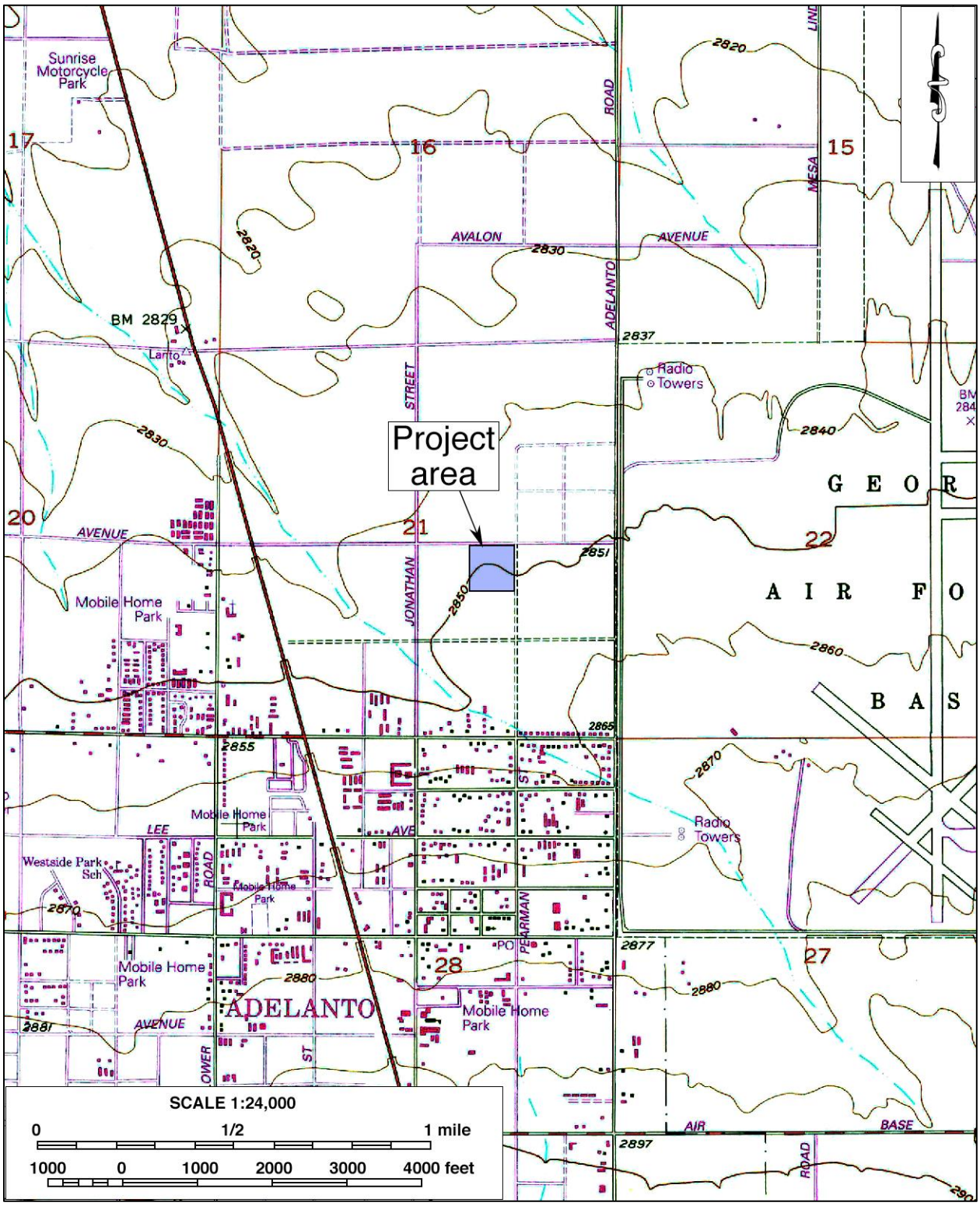


Figure 2. Project area. (Based on USGS Adelanto, Calif., 7.5' quadrangle [USGS 1993])

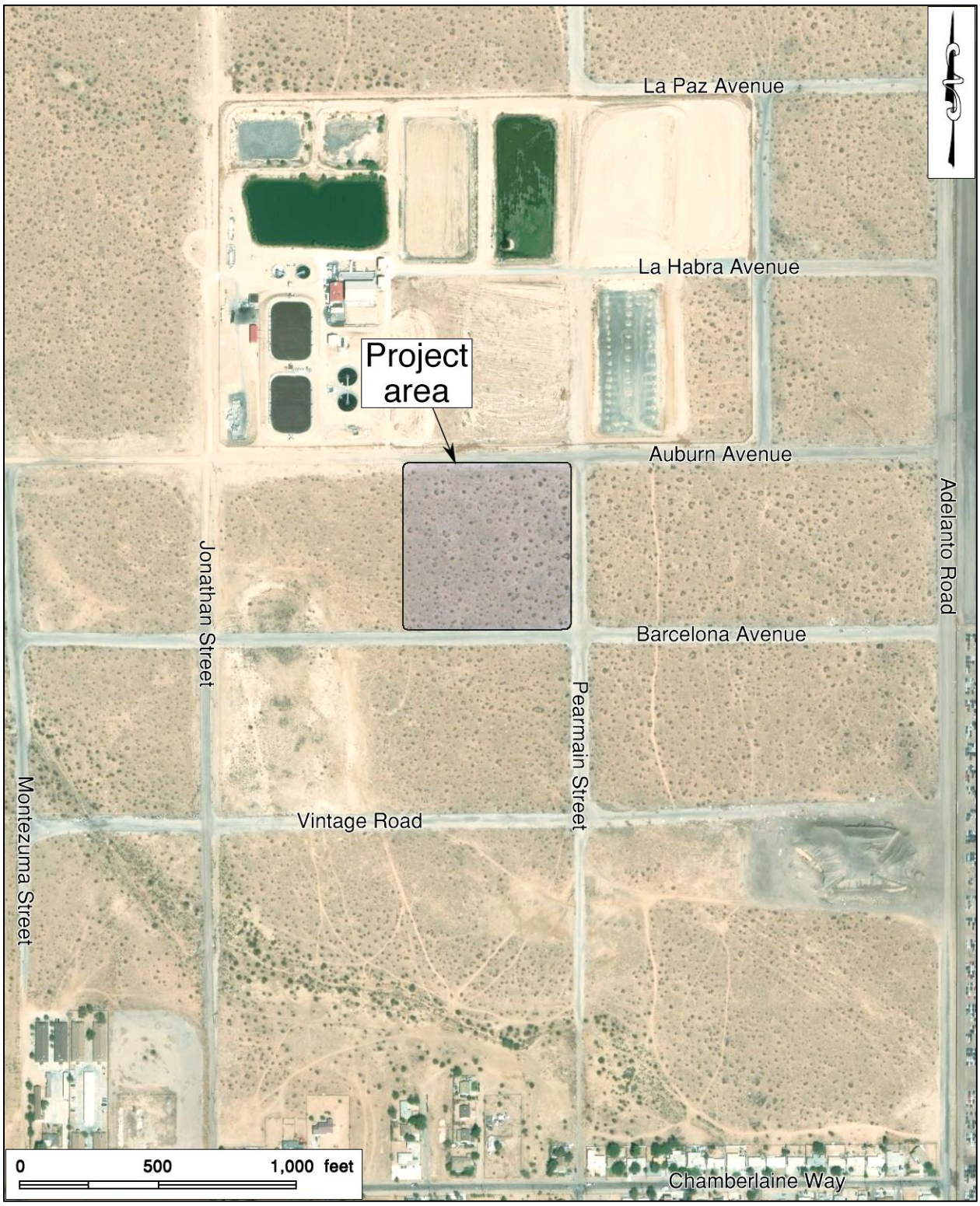


Figure 3. Aerial view of the project area.

SETTING

CURRENT NATURAL SETTING

The City of Adelanto is situated in the northwestern portion of the Victor Valley, which lies on the southern rim of the Mojave Desert and immediately to the north of the San Bernardino-San Gabriel mountain ranges. The climate and environment of the area is typical of southern California "high desert" country, so-called because of its higher elevation than the Colorado Desert to the southeast. The climate is marked by extremes in temperature and aridity, with summer highs reaching well over 110ºF and winter lows dipping below freezing. Average annual precipitation is less than five inches.

The project area consists of a roughly square-shaped parcel of undeveloped desert land that is bounded by the unpaved Auburn Avenue, Pearmain Street, and Barcelona Avenue on the north, east, and south, respectively, and abuts another vacant parcel to the west (Fig. 4). The surrounding properties are most undeveloped, with a wastewater treatment facility across Auburn Avenue to the north, a rural residential neighborhood about a quarter-mile to the south, and the Southern California Logistics Airport (formerly George Air Force Base) a half-mile to the east.

Elevations in the project area range approximately between 2,855 and 2,865 feet above mean sea level, and the terrain is relatively level. Soils in the vicinity consist of yellowish-brown fine- to coarse-grained sands with small rocks. The vegetation includes small creosote bushes, brittle brush, Joshua trees, and a light cover of grass (Fig. 4). In its native state, the project area is a part of the Joshua Tree Woodland Plant Community, which typically also features juniper, buckwheat, Apache plume, desert alyssum, and various types of cacti. Animals common to the area include small mammals (jackrabbits, desert cottontails, squirrels, rats, and mice), reptiles (lizards, snakes, and desert tortoise), native birds (doves, vultures, raptors, and quail), and arthropods (beetles, desert tarantula and scorpions).



Figure 4. Overview of the project area. (Photograph taken on January 24, 2020; view to the southwest)

The Victor Valley is a part of the Mojave River watershed. During the Late Pleistocene and early Holocene epochs, the region experienced four separate high stands of Lake Mojave and other pluvial lakes. These episodes afforded the aboriginal population greater access to water, while the desiccation of the lakes forced them to move closer to the Mojave River, which provided not only a dependable water source and subsistence resources but also a major route for interregional trade. Not surprisingly, most of the Native American archaeological sites identified in and around the Victor Valley occur along the banks of the river.

CULTURAL SETTING

Prehistoric Context

In order to understand the progress of Native American cultures prior to European contact, archaeologists have devised chronological frameworks on the basis of artifacts and site types that date back some 12,000 years. Currently, the chronology most frequently applied in the Mojave Desert divides the region's prehistory into five periods marked by changes in archaeological remains, reflecting different ways in which Native peoples adapted to their surroundings. According to Warren (1984) and Warren and Crabtree (1986), the five periods are as follows: the Lake Mojave Period, 12,000 years to 7,000 years ago; the Pinto Period, 7,000 years to 4,000 years ago; the Gypsum Period, 4,000 years to 1,500 years ago; the Saratoga Springs Period, 1,500 years to 800 years ago; and the Protohistoric Period, 800 years ago to European contact.

More recently, Hall (2000) presented a slightly different chronology for the region, also with five periods: Lake Mojave (ca. 8000-5500 B.C.), Pinto (ca. 5500-2500 B.C.), Newberry (ca. 1500 B.C.-500 A.D.), Saratoga (ca. 500-1200 A.D.), and Tecopa (ca. 1200-1770s A.D.). According to Hall (*ibid.*:14), small mobile groups of hunters and gatherers inhabited the Mojave Desert during the Lake Mojave sequence. Their material culture is represented by the Great Basin Stemmed points and flaked stone crescents. These small, highly mobile groups continued to inhabit the region during the Pinto Period, which saw an increased reliance on ground foods, small and large game animals, and the collection of vegetal resources, suggesting that "subsistence patterns were those of broad-based foragers" (*ibid.*:15). Artifact types found in association with this period include the Pinto points and *Olivella* sp. spire-lopped beads.

Distinct cultural changes occurred during the Newberry Period, in comparison to the earlier periods, including "geographically expansive land-use pattern…involving small residential groups moving between select localities," long-distance trade, and diffusion of trait characteristics (Hall 2000:16). Typical artifacts from this period are the Elko and Gypsum Contracting Stem points and Split Oval beads. The two ensuing periods, Saratoga and Tecopa, are characterized by seasonal group settlements near accessible food resources and the intensification of the exploitation of plant foods, as evidenced by groundstone artifacts (*ibid.*:16).

Hall (2000:16) states that "late prehistoric foraging patterns were more restricted in geographic routine and range, a consequence of increasing population density" and other variables. Saratoga Period artifact types include Rose Spring and Eastgate points as well as Anasazi grayware pottery. Artifacts from the Tecopa Period include Desert Side-notched and Cottonwood Triangular points, buffware and brownware pottery, and beads of the Thin Lipped, Tiny Saucer, Cupped, Cylinder, steatite, and glass types (*ibid.*).

Ethnohistoric Context

The Victor Valley area is situated near the presumed boundary between the traditional territories of the Serrano and the Vanyume peoples. The basic written sources on Serrano and Vanyume cultures are Kroeber (1925), Strong (1929), and Bean and Smith (1978), and the following ethnographic discussion of the Serrano and Vanyume peoples is based on these sources. Linguistically the Vanyume were probably related to the Serrano, their southern neighbor, although politically they seem to have differed from the Serrano proper. The number of Vanyumes, never large, dwindled rapidly between 1820 and 1834, when southern California Indians were removed to the various missions and their *asistencias*, and the group virtually disappeared well before 1900. As a result, very little is known about the Vanyume today.

The Serrano's territory is centered at the San Bernardino Mountains, but also includes part of the San Gabriel Mountains, much of the San Bernardino Valley, and the Mojave River valley in the southern portion of the Mojave Desert, reaching as far east as the Cady, Bullion, Sheep Hole, and Coxcomb Mountains. However, it is nearly impossible to assign definitive boundaries for the Serrano territory due to the nature of the tribe's clan-based organization as well as the lack of reliable data. The name of the group, Serrano, was derived from a Spanish term meaning "mountaineer" or "highlander."

Prior to European contact, Serrano subsistence was defined by the surrounding landscape and primarily based on the gathering of wild and cultivated foods and hunting, exploiting nearly all of the resources available. They settled mostly on elevated terraces, hills, and finger ridges near where flowing water emerged from the mountains. Loosely organized into exogamous clans led by hereditary heads, the clans were in turn affiliated with one of two exogamous moieties, the Wildcat (*Tukutam*) or the Coyote (*Wahiiam*). The exact nature of the clans, their structure, function, and number are not known, except that each clan was the largest autonomous political and landholding unit. The core of the unit was the patrilineage, although women retained their own lineage names after marriage. There was no pan-tribal political union among the clans.

The Serrano had a variety of technological skills that they used to acquire food, shelter, and clothing as well as to create ornaments and decorations. Common tools included manos and metates, mortars and pestles, hammerstones, fire drills, awls, arrow straighteners, and stone knives and scrapers. These lithic tools were made from locally sourced material as well as materials procured through trade or travel. They also used wood, horn, and bone spoons and stirrers; baskets for winnowing, leaching, grinding, transporting, parching, storing, and cooking; and pottery vessels for carrying water, storage, cooking, and serving food and drink. Much of this material cultural, elaborately decorated, does not survive in the archaeological record. As usual, the main items found archaeologically relate to subsistence activities.

Although contact with Europeans may have occurred as early as 1771 or 1772, Spanish influence on Serrano lifeways was minimal until the 1810s, when a mission *asistencia* was established on the southern edge of Serrano territory. Between then and the end of the mission era in 1834, most of the Serrano in the western portion of their traditional territory were removed to the nearby missions. In the eastern portion, a series of punitive expeditions in 1866-1870 resulted in the death or displacement of almost all remaining Serrano population in the San Bernardino Mountains. Today,

most Serrano descendants are affiliated with the San Manuel Band of Mission Indians, the Morongo Band of Mission Indians, or the Serrano Nation of Indians.

Historic Context

The present-day Victor Valley area received its first European visitor, the famed Spanish missionary and explorer Francisco Garcés, in 1776, and the first Euroamerican settlements appeared in the valley as early as 1860 (Peirson 1970:128). Despite these "early starts," due to its harsh environment, development in the arid high desert country of southern California was slow and limited for much of the historic period, and the Victor Valley remained only sparsely populated until the second half of the 20th century.

Garcés traveled through the Victor Valley along an ancient Indian trading route known today as the Mojave Trail (Beck and Haase 1974:15). In 1829, most of this trail was incorporated into an important pack-train road known as the Old Spanish Trail, which extended between southern California and Santa Fe, New Mexico (Warren 2004). Some 20 years later, when the historic wagon road known as the Mormon Trail or Salt Lake Trail was established between Utah and southern California, it followed essentially the same route across the Mojave Desert (NPS 2001:5). Since then, the Victor Valley has always served as a crucial link on a succession of major transportation arteries, where the heritage of the ancient Mojave Trail was carried on by the Santa Fe Railway, by the legendary U.S. Route 66, and finally by today's I-15.

In 1916, a post office was established in Adelanto, one year after the town was founded by inventor E.H. Richardson (City of Adelanto n.d.). Richardson had sold the rights to his invention, a small, light-weight version of the heavy, cumbersome electric iron first patented in 1882, for $75,000, and with the proceeds he bought the Adelanto townsite with the idea of creating a master-planned community and marketing it to World War I veterans with respiratory ailments by touting the health benefits of the desert climate (*ibid.*). The endeavor met limited success but laid the foundation for the future city.

During and after World War II, George Air Force Base, established nearby in 1941, added a new driving force in the local economy with its 6,000 civilian and military employees (City of Adelanto n.d.). After being deactivated in 1992, the former military installation was converted into civilian use as the Southern California Logistics Airport. Partially because of its proximity to this cargo-oriented airport, the City of Adelanto, incorporated in 1970 as the smallest city in the county, has since grown to a population of more than 34,000 in 2019 (USCB n.d.).

RESEARCH METHODS

RECORDS SEARCH

On January 21, 2020, CRM TECH archaeologist Nina Gallardo conducted the historical/ archaeological resources records search at the South Central Coastal Information Center (SCCIC), California State University, Fullerton, which is the State of California's official cultural resource records repository for the County of San Bernardino. During the records search, Gallardo examined

maps and records on file at the SCCIC 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 San Bernardino 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 this study was conducted by CRM TECH principal investigator/ historian Bai "Tom" Tang. Sources consulted during the research included published literature in local history, historic maps of the Adelanto area, and aerial photographs of the project vicinity. Among the maps consulted for this study were the U.S. General Land Office's (GLO) land survey plat map dated 1855 and the U.S. Geological Survey's (USGS) topographic maps dated 1934-1993, which are collected at the Science Library of the University of California, Riverside, and the California Desert District of the U.S. Bureau of Land Management, located in Moreno Valley. The aerial photographs, taken in 1952-2018, are available at the Nationwide Environmental Title Research (NETR) Online website and through the Google Earth software.

SACRED LANDS RECORDS SEARCH

On January 7, 2020, 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. NAHC is the State of California's trustee agency for the protection of "tribal cultural resources," as defined by California Public Resources Code §21074, and is tasked with identifying and cataloging properties of Native American cultural value, including places of special religious, spiritual, or social significance and known graves and cemeteries throughout the state. The response from NAHC is summarized below and attached to this report in Appendix 2.

FIELD SURVEY

On January 24, 2020, CRM TECH project archaeologists Daniel Ballester and Nina Gallardo carried out the intensive-level field survey of the project area. The survey was completed on foot by walking a series of parallel north-south transects spaced 15 meters (approximately 50 feet) apart. In this way, the ground surface in the entire project area was systematically and carefully examined for any evidence of human activities dating to the prehistoric or historic period (i.e., 50 years ago or older). Ground visibility was ranged from poor to good (25% to 80%) during the survey, depending on the density of the scattered vegetation growth.

RESULTS AND FINDINGS

RECORDS SEARCH

According to SCCIC records, the project area had not been surveyed for cultural resources studies prior to this study (Fig. 5), and no historical/archaeological sites had been recorded within or adjacent to the project boundaries. Within the one-mile scope of the records search, SCCIC records

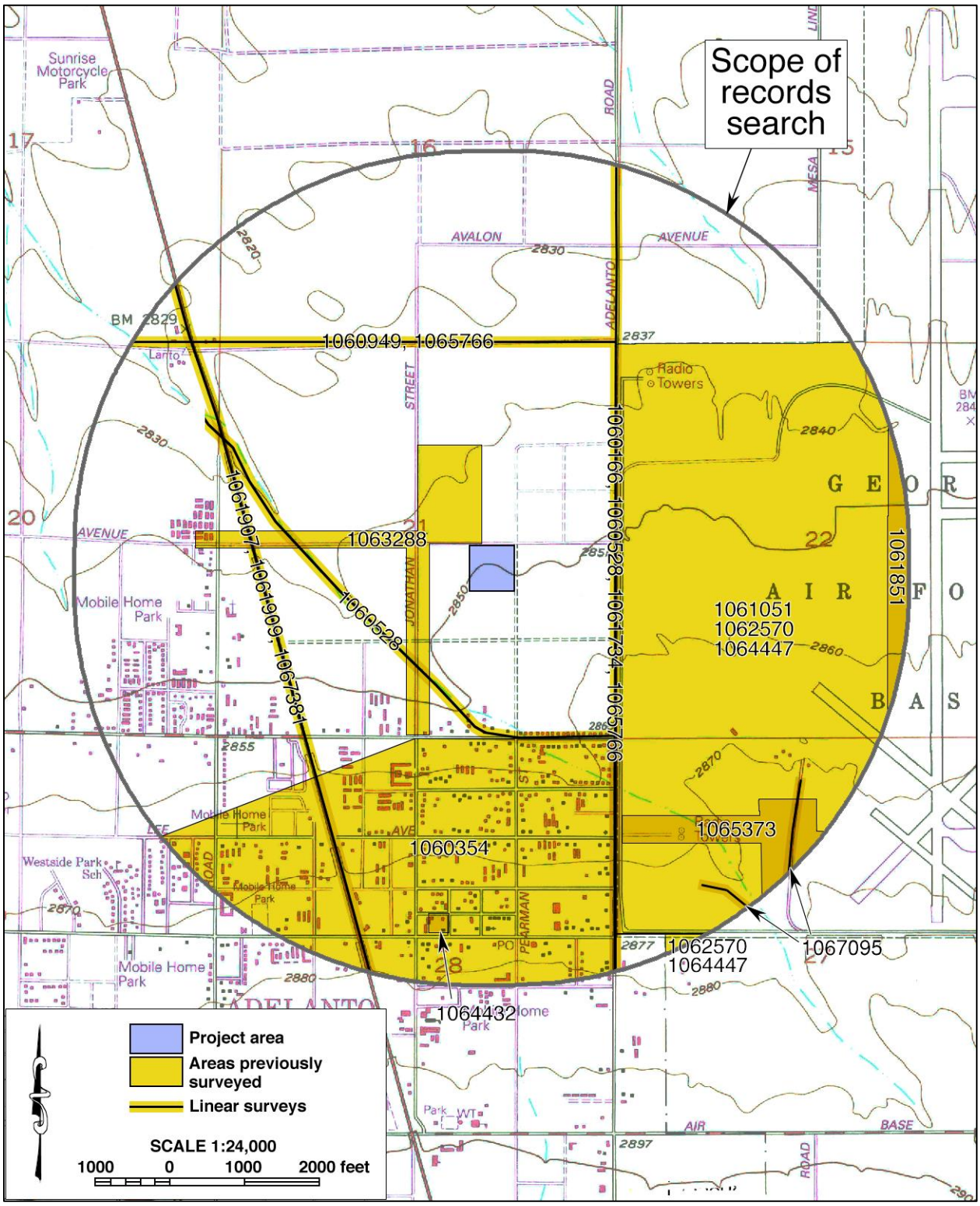


Figure 5. Previous cultural resources studies in the vicinity of the project area, listed by SCCIC file number. Locations of historical/archaeological sites are not shown as a protective measure.

Table 1. Previously Recorded Cultural Resources within the Scope of the Records Search		
Site No.	**Date Recorded**	**Description**
36-010316	Various 2000-2018	Kramer-Victorville transmission line
36-013896	Linder et al. 2007	Historic-period refuse scatter
36-021547	Nixon et al. 2008	Farmstead remains with lithic flake and mano fragment
36-021548	Nixon et al. 2008	Historic-period refuse scatter
36-021621	Hollins 2008	Single-family residence, ca. 1945-1955
36-021266	Sheets 1990	Isolate: chert scraper
36-023226	Jow and Cox 2010	Historic-period refuse scatter
36-025787	McKenna et al. 2012	George Air Force Base
36-061237	N/A	Isolate: agate flake
36-061261	Jow 2010	Isolate: historic-period refuse
36-061262	Jow 2010	Isolate: sun-colored amethyst glass shard
36-064032	Shepard and Brower 1997	Isolate: chalcedony projectile point fragment
36-064033	Shepard and Brower 1997	Isolate: lithic flake
36-064534	Wesson et al. 2002	Isolate: amethyst glass shards

identify some 20 previous studies on various tracts of land and linear features, including one adjacent to the northwest corner of the project area (Fig. 5). In all, roughly 40% of the land within the scope of the records search has been surveyed, resulting in the identification of seven historical/ archaeological sites and seven isolates—i.e., localities with fewer than three artifacts—within the one-mile radius, as listed in Table 1.

As Table 1 shows, four of the isolates were of prehistoric—i.e., Native American—origin, all of them representing lithic artifacts. One of the sites consisted mainly of the remains of a historic-period farmstead but also contained a prehistoric component with a lithic flake and a mano fragment. The other sites and isolates dated entirely to the historic period and included George Air Force Base, a power transmission line, a single-family residence, and scattered refuse items. None of these sites or isolates were found in the immediate vicinity of the project area, and thus none of them require further consideration during this study.

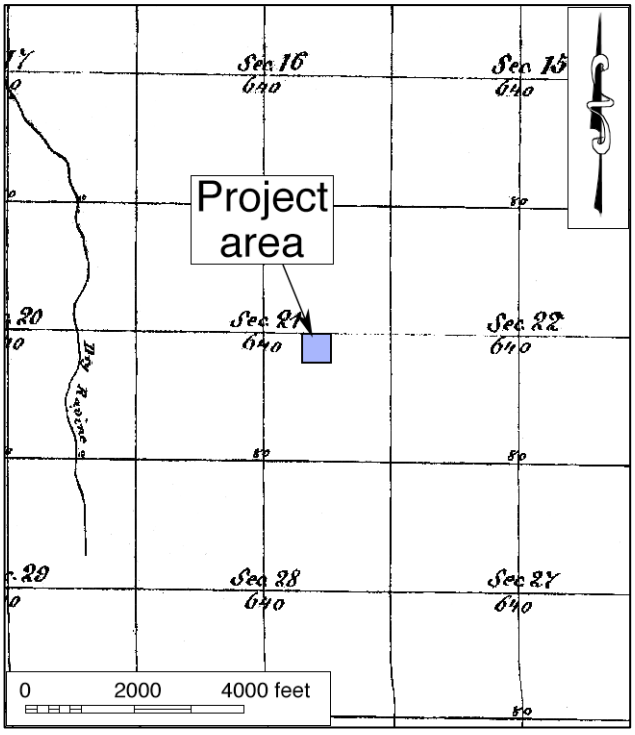


Figure 6. The project area and vicinity in 1853-1855. (Source: GLO 1855)

HISTORICAL RESEARCH

Historical sources consulted for this study suggest that the project area is relatively low in sensitivity for cultural resources from the historic period. As Figures 6-8 illustrate, no evidence of any settlement or development activities was noted in the project area

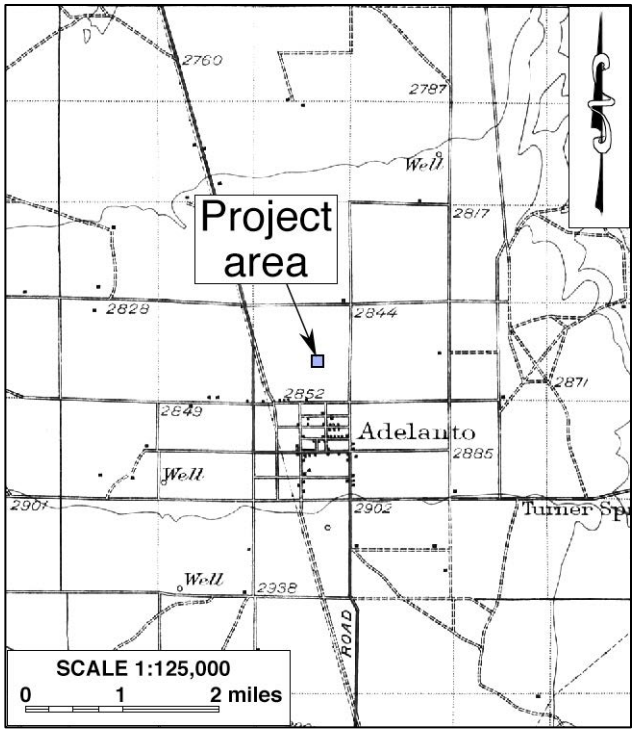


Figure 7. The project area and vicinity in 1920-1932. (Source: USGS 1934)

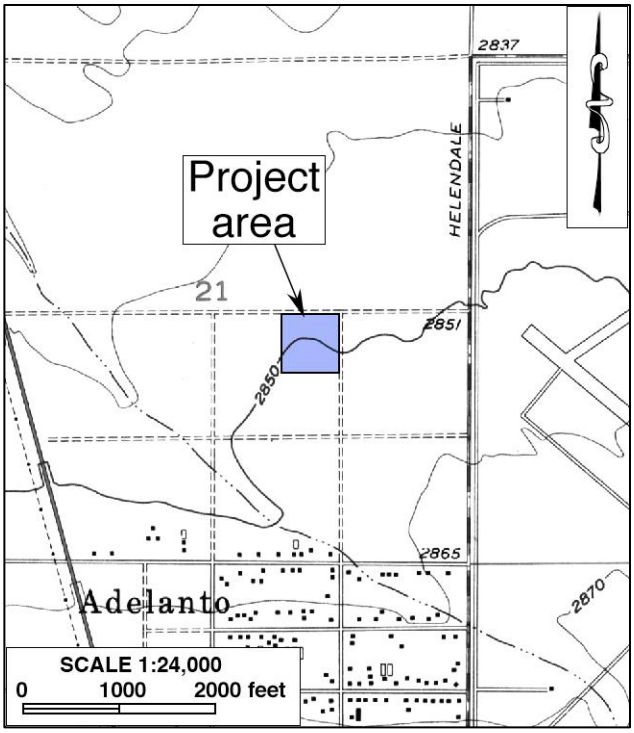


Figure 8. The project area and vicinity in 1952. (Source: USGS 1956)

throughout the 1850s-1950s era. The only man-made features known to be present in the immediate vicinity of the project area during the historic period were the predecessors of Auburn Avenue and Pearmain Street, both of which were first noted in the early 1950s as lightly used dirt roads across a barren, largely undisturbed landscape (Figs. 6-8; NETR Online 1952).

For the rest of the historic period, and as late as 1994, the area around the project location remained undeveloped and consisted entirely of open desert land (NETR Online 1952-1994). The wastewater treatment facility across Auburn Avenue to the north was first developed sometime between 1994 and 2005 and gradually expanded to its current size since then, and Barcelona Avenue came into being along the southern project boundary between 2006 and 2009 (Google Earth 1994-2018). Throughout these developments, the project area itself has remained undeveloped to the present time (NETR Online 1994-2016; Google Earth 1994-2018).

SACRED LANDS RECORDS SEARCH

In response to CRM TECH's inquiry, the Native American Heritage Commission states in a letter dated January 15, 2020, that the Sacred Lands File yielded negative results for Native American cultural resources in the vicinity of the project area. However, noting that the lack of specific information does not necessarily establish the absence of Native American cultural resources, NAHC recommended that local Native American groups be contacted as well in future consultations and provided a list of tribes in the region that may have knowledge of such resources. NAHC's reply is attached to this report in Appendix 2 for reference by the City of Adelanto in future government-to-government consultations with these tribal groups.

FIELD SURVEY

During the field survey, a historic-period refuse scatter was found in the southeastern portion of the project area, recorded into the California Historical Resources Inventory, and temporarily designated Site 3575-1H, pending the assignment of an official site number by the SCCIC (see App. 3). No other potential cultural resources of prehistoric or historical origin were found within the project boundaries. Scattered domestic refuse and construction waste were also observed elsewhere on the property, but those items appear to be of modern origin and demonstrate no historical or archaeological interest.

Site 3575-1H measures approximately 90x70 feet in size and is composed primarily of broken glass bottles and jars but also contains ceramic tableware fragments, metal and can fragments, and other common household discards (Fig. 9). Based on the artifacts, the site appears to date to the 1920s-1930s. The primary artifact concentration at the site measures approximately 20x15 feet and has the remains of a looter pit in the center. Subsurface probes with trowels revealed no subsurface artifact deposit at the site.

In total, some 650 artifacts were observed at the site, including 560 glass shards from bottles and jars. Four glass bottle bases with maker's marks were found in the main concentration. Among these, one was manufactured by the Chattanooga Glass Company between 1901 and 1913, another one by the F.W. Fitch Company between 1920 and the 1940s, and two by the Hazel-Atlas Glass Company in 1920-1964. Other notable artifacts include half of a lid from an Old Dutch Cleanser can (1906-present) and the crockery fragments, which evidently represent the remains of a poultry watering jug.



Figure 9. Historic-period refuse found at Site 3575-1H. *Left*: scatter of ceramic tableware and glass fragments; *right*: "Fitch" maker's mark on a bottle base. (Photographs taken on January 24, 2020)

DISCUSSION

The purpose of this study is to identify any cultural resources within the project area and to assist the City of Adelanto 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, Site 3575-1H represents the only potential "historical resource" identified within the project area. The site consists of a surface scatter of common household refuse dating to the circa 1920s-1930s era, with little else known about its origin. Refuse deposits of unknown historical background, such as Site 3575-1H, constitute the most prolific type of historic-period archaeological remains to be found in the southern California desert region and are typically the results of incidental trash dumping by local residents or travelers.

Like other sites of similar nature, 3575-1H does not have any documented association, let alone a close association, with a person or an event of recognized historic significance. In the absence of an exceptional quantity or quality of the artifacts, the site does not hold the potential for any important archaeological data. Based on these considerations, 3575-1H does not appear to meet any of the criteria for listing in the California Register of Historical Resources, and does not qualify as a "historical resource" under CEQA provisions.

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."

As stated above, no "historical resources," as defined by CEQA and associated regulations, have been identified within the project area. Therefore, CRM TECH presents the following recommendations to the City of Adelanto:

- The proposed project will not cause a substantial adverse change to any known "historical resources."
- No other cultural resources investigation will be necessary for the project unless development plans undergo such changes as to include areas not covered by this study.
- If any buried cultural materials are encountered during 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.

REFERENCES

Bean, Lowell John, and Charles R. Smith
1978 Serrano. In Robert F. Heizer (ed.): *Handbook of North American Indians*, Vol. 8: *California*; pp. 570-574. Smithsonian Institution, Washington, D.C.

Beck, Warren A., and Ynez D. Haase
1974 *Historical Atlas of California*. University of Oklahoma Press, Norman, Oklahoma.

City of Adelanto
2018 About Adelanto. http://www.adelantoca.gov/218/About-Adelanto.

GLO (General Land Office, U.S. Department of the Interior)
1855 Plat Map: Township No. 6 North Range No. 5 West, SBBM; surveyed in 1853-1855.

Google Earth
1994-2018 Aerial photographs of the project vicinity; taken in 1994, 2005, 2006, 2009, 2013, and 2015-2018. Available through the Google Earth software.

Hall, M.C.
2000 Archaeological Survey of 2472 Acres in Adjacent Portions of Lava, Lead Mountain, and Cleghorn Pass Training Areas, Marine Corps Air Ground Combat Center, Twentynine Palms, California (Volume I). Report prepared by the Archaeological Research Unit, University of California, Riverside, for the United States Marine Corps Natural Resources and Environmental Affairs Division.

Kroeber, Alfred L.
1925 *Handbook of the Indians of California*. Bureau of American Ethnology Bulletin 78. Washington, D.C.

NETR Online
1952-2016 Aerial photographs of the project vicinity; taken in 1952, 1968, 1994, 2005, 2009, 2010, 2012, 2014, and 2016. http://www.historicaerials.com.

NPS (National Park Service, U.S. Department of the Interior)
2001 *National Historic Trail Feasibility Study and Environmental Assessment: Old Spanish Trail, New Mexico, Colorado, Utah, Arizona, Nevada, California*. National Park Service, U.S. Department of the Interior, Washington, D.C.

Peirson, Erma
1970 *The Mojave River and Its Valley*. The Arthur H. Clarke Company, Glendale.

Strong, William Duncan
1929 *Aboriginal Society in Southern California*. University of California Publications in American Archaeology and Ethnology 26. Reprinted by Malki Museum Press, Banning, California, 1972.

USCB (United States Census Bureau, U.S. Department of Commerce)
n.d. Quick Facts: Adelanto City, California. https://www.census.gov/quickfacts/adelantocitycalifornia.
USGS (United States Geological Survey, U.S. Department of the Interior)
1934 Map: Barstow, Calif. (30', 1:125,000); surveyed in 1920 and 1932.
1956 Map: Adelanto, Calif. (7.5', 1:24,000); aerial photographs taken in 1952.
1969 Map: San Bernardino, Calif. (1:250,000); 1958 edition revised.
1993 Map: Adelanto, Calif. (7.5', 1:24,000); 1956 edition photorevised in 1989.
Warren, Claude N.
1984 The Desert Region. In Michael J. Moratto (ed.): *California Archaeology*; pp. 339-430. Academic Press, Orlando, Florida.
Warren, Claude N., and Robert H. Crabtree
1986 Prehistory of the Southwestern Area. In Warren L. D'Azevedo (ed.): *Handbook of North American Indians*, Vol. 11: *Great Basin*; pp. 183-193. Smithsonian Institution, Washington, D.C.
Warren, Elizabeth von Till
2004 The Old Spanish National Historic Trail. Http://www.oldspanishtrail.org/learn/trail_history.php.

APPENDIX 1:
PERSONNEL QUALIFICATIONS

PRINCIPAL INVESTIGATOR/HISTORIAN
Bai "Tom" Tang, M.A.

Education

1988-1993	Graduate Program in Public History/Historic Preservation, UC 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, UC Riverside.
1990	Intern Researcher, California State Office of Historic Preservation, Sacramento.
1990-1992	Teaching Assistant, History of Modern World, UC Riverside.
1988-1993	Research Assistant, American Social History, UC 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*

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.

PROJECT ARCHAEOLOGIST/REPORT WRITER
Deirdre Encarnación, M.A.

Education

2003	M.A., Anthropology, San Diego State University, California.
2000	B.A., Anthropology, minor in Biology, with honors; San Diego State University, California.
1993	A.A., Communications, Nassau Community College, Garden City, N.Y.
2001	Archaeological Field School, San Diego State University.
2000	Archaeological Field School, San Diego State University.

Professional Experience

2004-	Project Archaeologist/Report Writer, CRM TECH, Riverside/Colton, California.
2001-2003	Part-time Lecturer, San Diego State University, California.
2001	Research Assistant for Dr. Lynn Gamble, San Diego State University.
2001	Archaeological Collection Catalog, SDSU Foundation.

Memberships

Society for California Archaeology; Society for Hawaiian Archaeology; California Native Plant Society.

PROJECT ARCHAEOLOGIST/NATIVE AMERICAN LIAISON
Nina Gallardo, B.A.

Education

2004 B.A., Anthropology/Law and Society, University of California, Riverside.

Professional Experience

2004- Project Archaeologist, CRM TECH, Riverside/Colton, California.

- Leading and participating in surveys, testing and data recovery excavations, and archaeological monitoring programs;
- Conducting records searches at various information centers;
- Conducting Native American consultation;
- Producing maps and graphics for projects.

Cultural Resources Management Reports

Co-author of and contributor to numerous cultural resources management reports since 2004.

PROJECT ARCHAEOLOGIST/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.
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.

APPENDIX 2

SACRED LANDS FILE SEARCH

SACRED LANDS FILE & NATIVE AMERICAN CONTACTS LIST REQUEST

NATIVE AMERICAN HERITAGE COMMISSION
915 Capitol Mall, RM 364
Sacramento, CA 95814
(916) 653-4082
(916) 657-5390 (fax)
nahc@pacbell.net

Project: Proposed Medical Cannabis Cultivation Development Project; Assessor's Parcel Number 0459-053-53 (CRM TECH No. 3575)

County: San Bernardino

USGS Quadrangle Name: Adelanto , Calif.

Township 6 North **Range** 5 West SB **BM; Section(s)** 21

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 construct a medical cannabis cultivation facility on approximately 8.34 acres of undeveloped land located at the southwest corner of Auburn Avenue and Pearmain Street (APN 0459-053-53), east of Highway 395, in the City of Adelanto, San Bernardino County, California.

January 7, 2020

NATIVE AMERICAN HERITAGE COMMISSION

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
Russell Attebery
Karuk

COMMISSIONER
Marshall McKay
Wintun

COMMISSIONER
William Mungary
Paiute/White Mountain Apache

COMMISSIONER
Joseph Myers
Pomo

COMMISSIONER
Julie Tumamait-Stenslie
Chumash

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

January 15, 2020

Nina Gallardo
CRM TECH

Via Email to: ngallardo@crmtech.us

Re: Proposed Medical Cannabis Cultivation Development Project, San Bernardino 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 negative. However, the absence of specific site information in the SLF does not indicate the absence of cultural resources in any project area. 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
Staff Services Analyst

Attachment

Native American Heritage Commission
Native American Contact List
San Bernardino County
1/15/2020

Kern Valley Indian Community
Robert Robinson, Chairperson
P.O. Box 1010 — Kawaiisu
Lake Isabella, CA, 93283 — Tubatulabal
Phone: (760) 378 - 2915 — Koso
bbutterbredt@gmail.com

Kern Valley Indian Community
Julie Turner, Secretary
P.O. Box 1010 — Kawaiisu
Lake Isabella, CA, 93240 — Tubatulabal
Phone: (661) 340 - 0032 — Koso

Kern Valley Indian Community
Brandy Kendricks,
30741 Foxridge Court — Kawaiisu
Tehachapi, CA, 93561 — Tubatulabal
Phone: (661) 821 - 1733 — Koso
krazykendricks@hotmail.com

Morongo Band of Mission Indians
Robert Martin, Chairperson
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

Morongo Band of Mission Indians
Denisa Torres, Cultural Resources Manager
12700 Pumarra Rroad — Cahuilla
Banning, CA, 92220 — Serrano
Phone: (951) 849 - 8807
Fax: (951) 922-8146
dtorres@morongo-nsn.gov

San Fernando Band of Mission Indians
Donna Yocum, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Vanyume
Phone: (503) 539 - 0933 — Tataviam
Fax: (503) 574-3308
ddyocum@comcast.net

San Manuel Band of Mission Indians
Lee Clauss, Director of Cultural Resources
26569 Community Center Drive — Serrano
Highland, CA, 92346
Phone: (909) 864 - 8933
Fax: (909) 864-3370
lclauss@sanmanuel-nsn.gov

Serrano Nation of Mission Indians
Wayne Walker, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (253) 370 - 0167
serranonation1@gmail.com

Serrano Nation of Mission Indians
Mark Cochrane, Co-Chairperson
P. O. Box 343 — Serrano
Patton, CA, 92369
Phone: (909) 528 - 9032
serranonation1@gmail.com

Tubatulabals of Kern Valley
Robert L. Gomez, Chairperson
P.O. Box 226 — Tubatulabal
Lake Isabella, CA, 93240
Phone: (760) 379 - 4590
Fax: (760) 379-4592

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 Medical Cannabis Cultivation Development Project, San Bernardino County.

APPENDIX 3

CALIFORNIA HISTORICAL RESOURCES INVENTORY RECORD FORMS

Site 3575-1H (Temporary Designation)

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code 6Z
Other Listings
Review Code Reviewer Date

*Resource Name or # (Assigned by recorder) CRM TECH 3575-1H

P1. Other Identifier:

***P2.** Location: √ Not for Publication ___ Unrestricted *a. County San Bernardino

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

*b. USGS 7.5' Quad Adelanto, Calif. Date 1956, photorevised 1993
T6N; R5W; SE 1/4 of NE 1/4 NW 1/4 of SE 1/4 of Sec 21 ; S.B. B.M.
Elevation: Approximately 2,860 feet above mean sea level

c. Address N/A City Adelanto Zip

d. UTM: (Give more than one for large and/or linear resources) Zone 11 ; 462,821 mE/ 3,827,932 mN
UTM Derivation: ___ USGS Quad √ GPS (NAD 83)

e. Other Locational Data: (e.g., parcel #, directions to resource, etc., as appropriate) Assessor's Parcel No. 0459-053-53; approximately 395 feet south of Auburn Avenue and 25 feet west of Pearmain Street

***P3a.** Description: (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries) This historic-period site consists of a refuse scatter with approximately 650 artifacts that date generally to the 1920s-1930s, including ceramic tableware fragments, crockery fragments, metal and can fragments, some 560 glass fragments from bottles and jars (such as bottle bases), and other common household discards. The site measures approximately 90x70 feet and contains one artifact concentration that is approximately 20x15 feet in size and has the remains of a looter pit in the center.

***P3b.** Resource Attributes: (List attributes and codes) AH4: Refuse scatter

***P4.** Resources Present: ___ Building ___ Structure ___ Object √ Site ___ District ___ Element of District ___ Isolate ___ Other

P5a. Photograph or Drawing (Photograph required for buildings, structures, and objects.)



P5b. Description of Photo: (view, date, accession #) Taken on January 24, 2020; view to the west

***P6.** Date Constructed/Age of Sources: √ Historic ___ Prehistoric ___ Both
1920s-1930s(estimated)

***P7.** Owner and Address: Bassam Hussain and Shayma Kadhim, 333 E. Arrow Highway, Unit 873, Upland, CA 92785

***P8.** Recorded by: (Name, affiliation, and address) Daniel Ballester and Nina Gallardo, CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

***P9.** Date Recorded: January 24, 2020

***P10.** Survey Type: (Describe) Intensive-level survey for CEQA-compliance purpose

***P11.** Report Citation: (Cite survey report and other sources, or enter "none.") Bai "Tom" Tang, Deirdre Encarnación, Daniel Ballester, and Nina Gallardo (2020): Historical/ Archaeological Resources Survey Report: Assessor's Parcel Number 0459-053-53, City of Adelanto, San Bernardino County, California

***Attachments:** ___ None √ Location Map √ Sketch Map ___ Continuation Sheet ___ Building, Structure, and Object Record √ Archaeological Record ___ District Record ___ Linear Resource Record ___ Milling Station Record ___ Rock Art Record ___ Artifact Record ___ Photograph Record ___ Other (List):

State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION
Primary #
Trinomial

ARCHAEOLOGICAL SITE RECORD

Page 2 of 4 *Resource Name or # (Assigned by recorder) CRM TECH 3575-1H

A1. Dimensions: a. Length 90 feet (NW-SE) b. Width 70 feet (NE-SW)
Method of Measurement: Paced Taped Visual estimate √ Other: GIS Trimble Yuma
Method of Determination (Check any that apply.): √ Artifacts Features Soil Vegetation Topography Cut bank Animal burrow Excavation Property boundary Other (Explain):
Reliability of Determination: High √ Medium Low Explain:
Limitations (Check any that apply): Restricted access Paved/built over Site limits incompletely defined Disturbances Vegetation Other (Explain):

A2. Depth: √ None Unknown Method of Determination: Subsurface probes with trowels

***A3. Human Remains:** Present √ Absent Possible Unknown (Explain):

***A4. Features:** (Number, briefly describe, indicate size, list associated cultural constituents, and show location of each feature on sketch map.) None

***A5. Cultural Constituents:** (Describe and quantify artifacts, ecofacts, cultural residues, etc., not associated with features.) Notable artifacts observed at the site include half of a lid from an Old Dutch Cleanser can (1906-present) and four glass bottle bases with maker's marks that were found in the main concentration. The maker's marks indicate that one of these bottles was manufactured by the Chattanooga Glass Company between 1901 and 1913, another one by the F.W. Fitch Company between 1920 and the 1940s, and two by the Hazel-Atlas Glass Company in 1920-1964. The crockery fragments belong to a poultry watering jug.

***A6. Were Specimens Collected?** √ No Yes (If yes, attach Artifact Record or catalog and identify where specimens are curated.)

***A7. Site Condition:** Good √ Fair Poor (Describe disturbances.):

A8. Nearest Water (Type, distance, and direction.): The Mojave River is located approximately 3.5 miles to the east.

***A9. Elevation:** Approximately 2,860 feet above mean sea level

A10. Environmental Setting: (Describe vegetation, fauna, soils, geology, landform, slope, aspect, exposure, etc.): The site is located on undeveloped land, south of a water treatment facility. Vegetation in the area includes Joshua trees, creosote, tumbleweed, foxtail, and other small grasses and shrubs. Surface soils consist of a yellowish-brown fine- to coarse-grained sands mixed with small rocks.

A11. Historical Information:

***A12. Age:** Prehistoric Protohistoric 1542-1769 1769-1848 1848-1880 1880-1914 √ 1914-1945 Post 1945 Undetermined **Describe position in regional prehistoric chronology or factual historic dates if known:**

A13. Interpretations: (Discuss scientific, interpretive, ethnic, and other values of site, if known) Refuse deposits of unknown historical background like this constitute the most prolific type of historic-period archaeological remains to be found in the southern California desert region and are typically the results of incidental trash dumping by local residents or travelers.

A14. Remarks: As a surface scatter of common household refuse of unknown origin, and in the absence of an exceptional quantity or quality of the artifacts, the site does not appear to meet any of the criteria for listing in the National Register of Historic Places or the California Register of Historical Resources.

A15. References: (Documents, informants, maps, and other references.): See Item P11.

A16. Photographs: (List subjects, direction of view, and accession numbers or attach a Photograph Record.):
Original Media/Negatives Kept at: CRM TECH, Colton, California

***A17. Form Prepared by:** Daniel Ballester **Date:** January 27, 2020
Affiliation and Address: CRM TECH, 1016 East Cooley Drive, Suite A/B, Colton, CA 92324

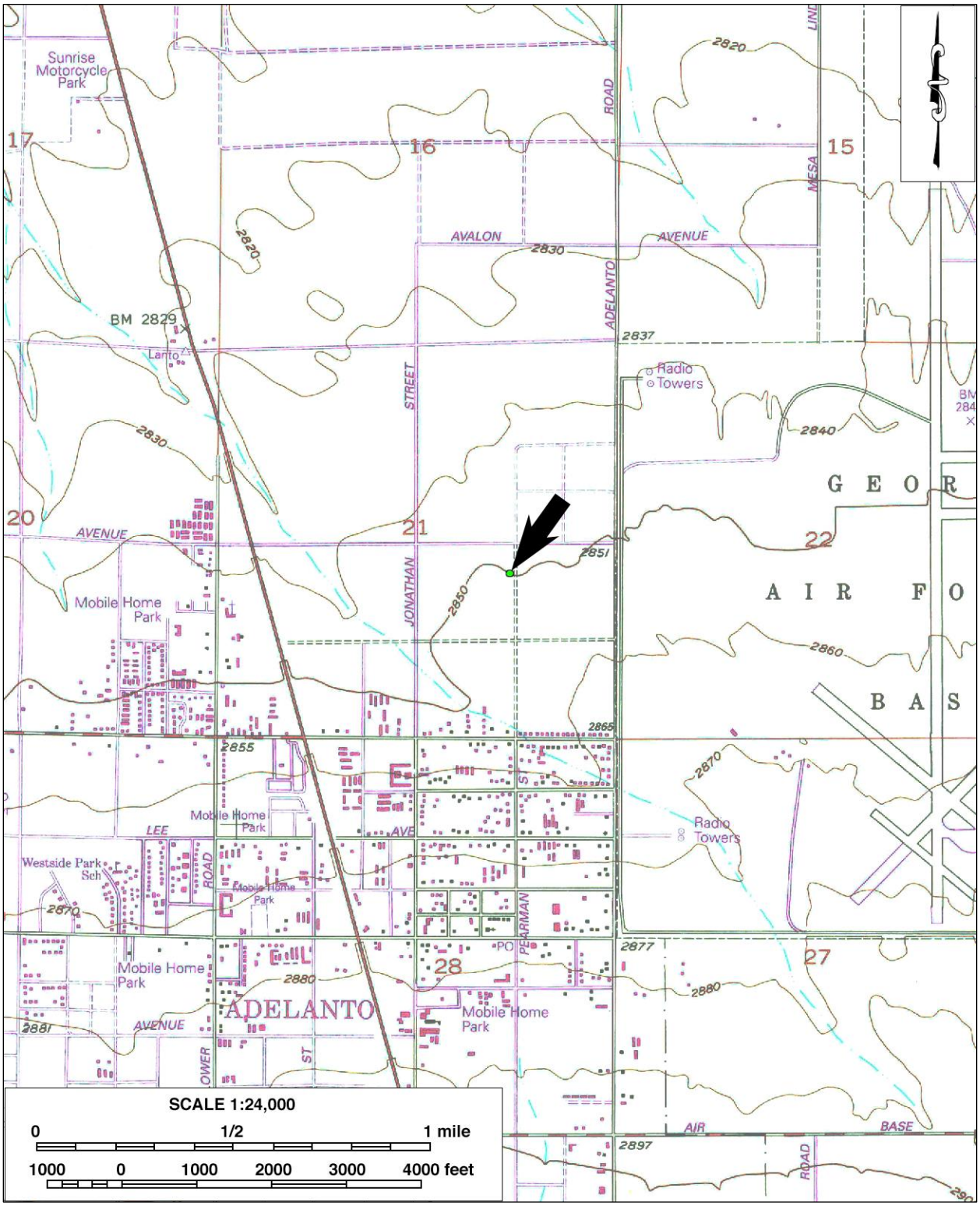
State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #
Trinomial

Page 3 of 4 *Resource Name or # (Assigned by recorder) CRM TECH 3575-1H

*Map Name: Adelanto, Calif. *Scale: 1:24,000 *Date of Map: 1956/1993



State of California--The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI #
Trinomial

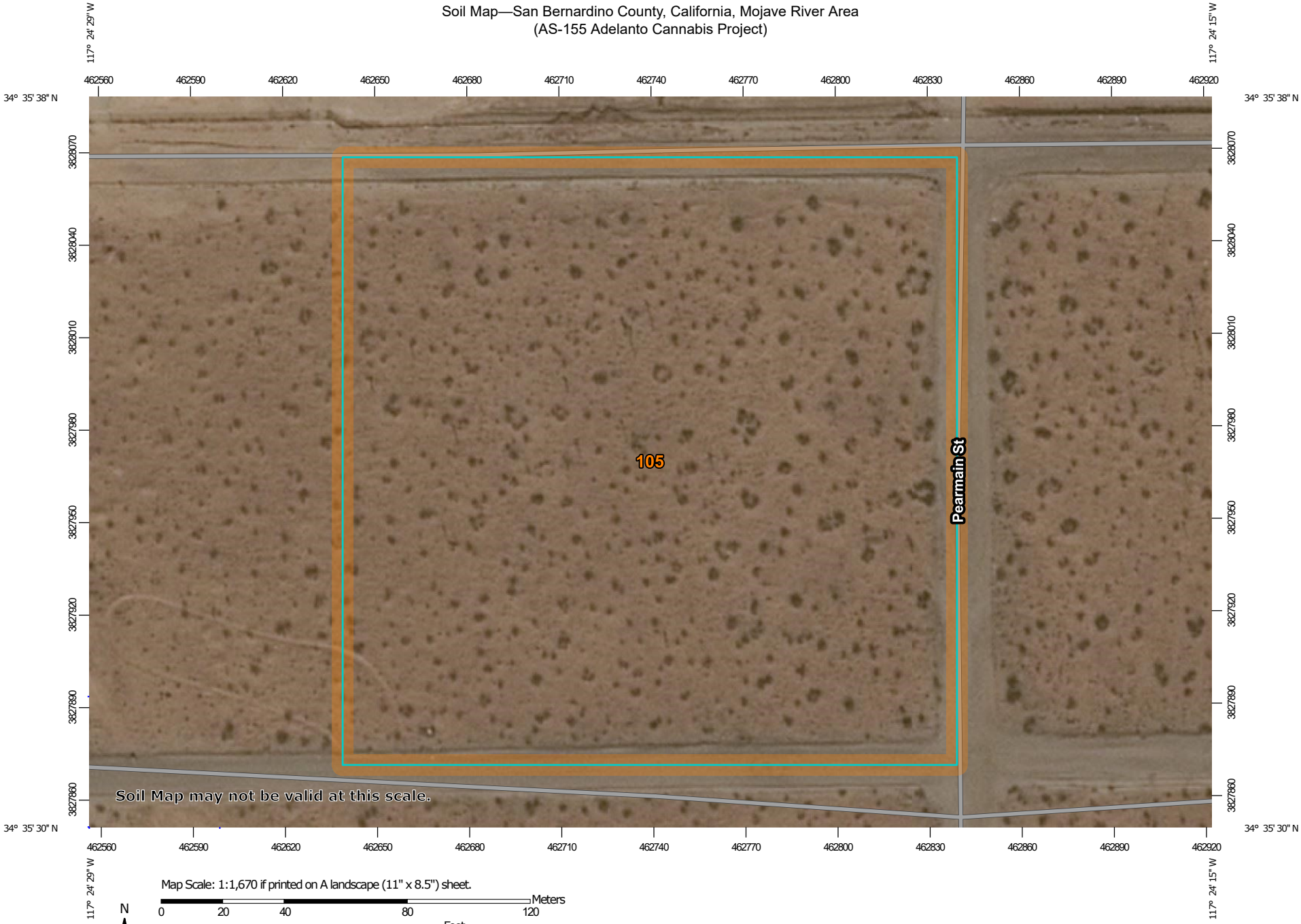
Page 4 **of** 4 ***Resource Name or #** (Assigned by recorder) CRM TECH 3575-1H

***Drawn by:** Daniel Ballester ***Date:** January 27, 2020



APPENDIX 4

Soil Map—San Bernardino County, California, Mojave River Area
(AS-155 Adelanto Cannabis Project)



Map Scale: 1:1,670 if printed on A landscape (11" x 8.5") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

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 Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

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: San Bernardino County, California, Mojave River Area
Survey Area Data: Version 11, Sep 17, 2019

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jul 19, 2018—Apr 19, 2019

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.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
105	BRYMAN LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES	9.8	100.0%
Totals for Area of Interest		**9.8**	**100.0%**