

NOTICE OF PREPARATION FOR A DRAFT ENVIRONMENTAL IMPACT REPORT

LEAD AGENCY: City of National City

PROJECT NAME: San Diego Clean Fuels Facility, LLC Project

LOCATION: The Project is located in San Diego County in the City of National City (Figure 1) between the existing buildings along Cleveland Avenue and the existing Burlington Northern Santa Fe (BNSF) Railway tracks and between Civic Center Drive and West 19th Street (Figure 2). The site address is 830 West 18th Street.

PROJECT DESCRIPTION: USD Clean Fuels (USD-CF) proposes to construct a transloading facility on the BNSF Railway railroad right-of-way (ROW). The Project Area is approximately 6.5 acres and is primarily unimproved and undeveloped. The area was formerly used for railroad and industrial purposes. A portion of the Project Area contains four hazardous materials closed release cases, and one open release case is located on the adjoining/adjacent properties. The open remediation case is the Pacific Steel, Inc. (PSI) property located adjacent and east of the Project Area at 1700 Cleveland Avenue. Site remediation has been completed by DTSC for the PSI property.

The new San Diego Clean Fuels Facility will reconfigure one existing rail spur and add truck loading spots to transload clean renewable and bio-fuels (renewable diesel, ethanol, and potentially sustainable aviation fuels at a later date) directly from rail cars into trucks for more efficient delivery to local retailers than the current supply chain. Each truck loading location will consist of a pump skid, controls, and above ground manifold system. Small amounts of lubricity, conductivity, and red dye will be added in-line to renewable diesel fuels during the transload process depending on the customer specifications. The rail car unloading and truck loading areas will be equipped with a containment system capable of containing the contents of 110 percent of an entire rail car volume.

Rail cars will be delivered to the facility by BNSF Railway and placed directly on designated receiving tracks. After completing the quality and quantity assurance requirements for the product in each rail car, facility operators will unload the fuel commodities directly from the rail cars into trucks via a short manifold system. Emissions from loading will be managed in compliance with the San Diego Air Pollution Control District's Air Permit requirements. Once emptied, the railroad will remove cars and replace them with full ones as needed.

Operating Hours and Personnel

Crews of 4 liquid fuel certified operators and a supervisor will work at the facility 24 hours per day, 7 days per week. Up to 10 crew members would be onsite at any given time (shift change). A total of 21 full-time operators with one supervisor per shift and one facility manager will be employed at the facility. An office trailer will be provided on site and will incorporate the control center for the equipment, restrooms, and an area for driver check-in and receipt of Bills of Lading.

Vehicular Traffic

Truck traffic will enter the site from 18th Street and exit on W 19th Street and on to their retail client deliveries. A second rail line will be added at the existing grade crossing on Civic Center Drive to facilitate rail car movements. These trucks trips will replace existing trips of conventional fuels, delivering the benefits of the lower carbon, renewable fuels to the area.

Other Information

The category of these non-petroleum-based fuels (“biofuels”) includes renewable diesel, biodiesel, ethanol and sustainable aviation fuel (SAF).

Renewable Diesel and **SAF** can be produced with new or recycled vegetable oils, animal fats, greases, algae, crop residues or woody biomass. Renewable diesel and SAF are also designated as a “drop-in” biofuels allowing them to fully replace petroleum-based fuels on a 1-to-1 basis with zero modification to storage facilities or combustion engine systems. California’s Low Carbon Fuel Standard Certified Carbon Intensities shows renewable diesel reduces carbon intensity on average by 65% when compared with petroleum diesel.

Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. Biodiesel is often used as a blend with Renewable Diesel, as encouraged in the LCFS. Both renewable diesel and a blend of renewable diesel and up to 20% biodiesel can also be used to replace petroleum diesel with no changes or adverse effects to the engine, also with a reduction in greenhouse gas emissions.

Ethanol is a renewable fuel manufactured from plant bio-mass which when burned has very low emissions. Ethanol was mandated in California in 2003 to replace the cancer-causing MTBE as oxygenator for gasoline. It is the only oxygenator currently allowed for gasoline in California. Nearly all gasoline today is blended with 10% ethanol which acts as an oxygenator and serves to reduce tailpipe emissions. E-85 is a blend of up to 85% ethanol and petroleum gasoline but requires engine modifications.

With the ability to utilize a wide variety of resources to produce renewable diesel, biodiesel, ethanol and SAF, these biofuels are considered 100% sustainable. All of this makes these fuels environmentally, socially, and in long-term respects economically preferable to petroleum-based fuels, helping achieve the LCFS and move toward the State goal of carbon neutrality. The benefits of the improved supply chain add to the community and state-wide benefits.

Project Characteristics

The Proposed Project consists of the following improvements:

1. Replace one existing rail turnout.
2. Install new receiving and departure track for the facility.
3. Install concrete slab pump pads at each transload pump system.
4. Install truck load slabs sloped to a drain in the center at each truck transload spot.
5. Provide a concrete lined containment basin and connect each truck transload slab drain to the basin.
6. Install pumps and piping to move fuels from rail cars to truck loading spots.
7. Provide containment enclosures for renewable diesel additive totes.
8. Provide track pans below railcars at the transloading rail for conveyance of potential spills to the remote containment basin.
9. Provide an office trailer with control center, restrooms, and driver check-out area.
10. Provide all weather paving for the facility and circulation as needed to supplement existing yard drives.
11. Provide lighting and security for the site as required.
12. Provide an on-site A-FFF Florida Free Firefighting platform with additional fire hydrants, as per the National City Fire Department (NCFD) requirements.

POTENTIAL ENVIRONMENTAL EFFECTS: All environmental issues analyzed in the attached Initial Study were considered during initial review of the project. Issue areas anticipated to be further evaluated in the EIR include Air Quality, Biological Resources, Energy, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Transportation, and Mandatory Findings of Significance.

SCOPING MEETING: Pursuant to PRC Section 21080.4(b), the lead agency is hosting a scoping meeting on Thursday, May 23, 2024, from 6 p.m. to 8 p.m. to present the project and solicit comments. The public scoping meeting will be held at the National City Public Library community room located at 1401 National City Blvd. Please note that depending on the number of attendees, the meeting could end earlier than 8 p.m.

REVIEW AND COMMENT PERIOD: The City of National City invites you to comment on the scoping for the Draft EIR. The NOP is available for a 30-day public review period from May 9, 2024, to June 10, 2024. Pursuant to CEQA Guidelines Section 15082, responsible and trustee agencies and other interested parties, including members of the public, must submit any comments in response to this notice no later than 6 p.m. on June 10, 2024, to the following:

David Welch, Associate Planner
City of National City, Planning Division, 1st Floor
1243 National City Boulevard
National City, CA 91950

Or

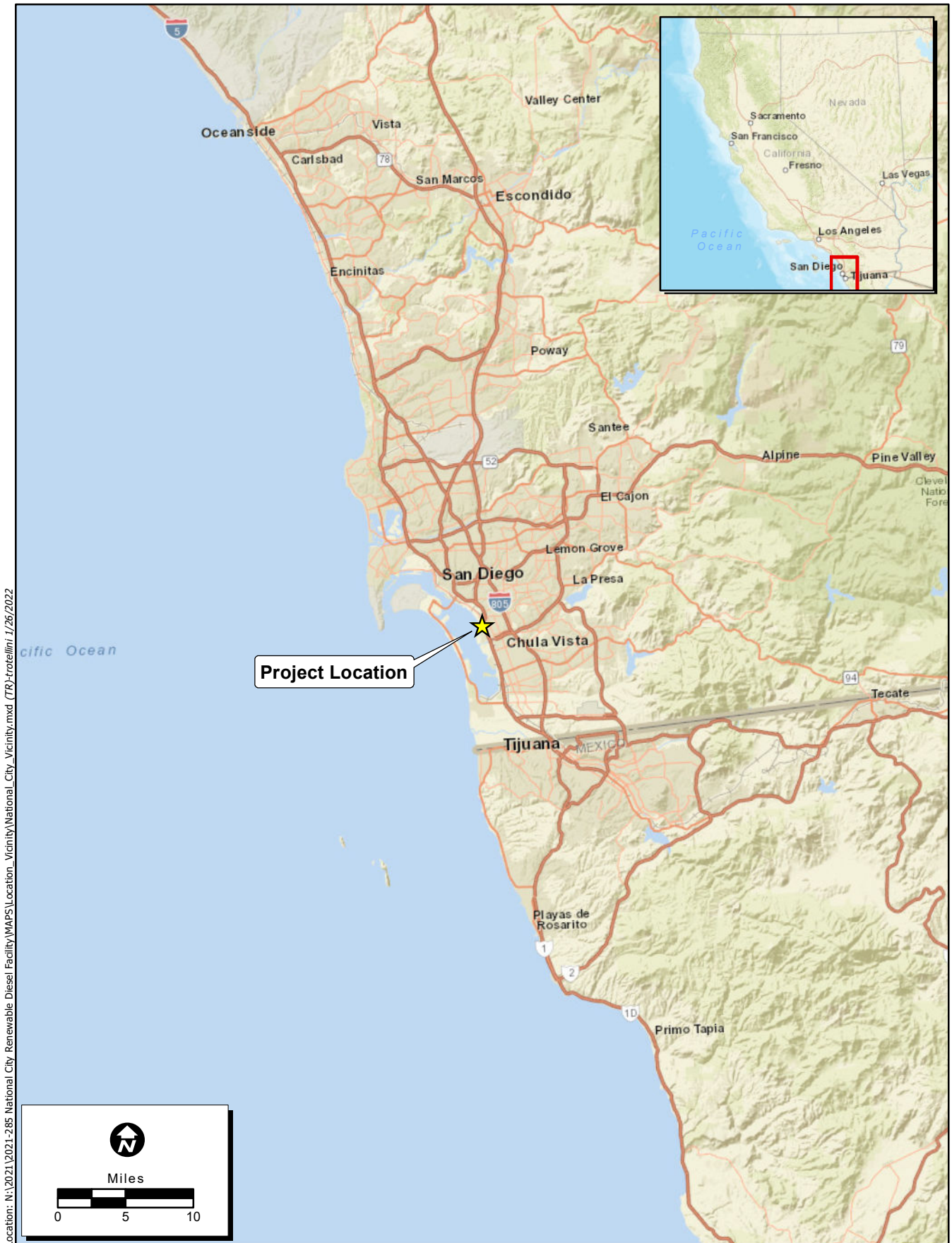
Martin Reeder, Assistant Community Development Director
City of National City, Planning Division, 1st Floor
1243 National City Boulevard
National City, CA 91950

During this period, the NOP will be available for review or for purchase at the cost of reproduction at the City of National City Planning Division (1243 National City Boulevard, 1st Floor, National City, CA 91950) by appointment between the hours of 7:00 a.m. and 6:00 p.m. Mondays through Thursdays, or at the City's website: <https://www.nationalcityca.gov/government/community-development/planning/current-projects>

FURTHER INFORMATION/LEAD AGENCY CONTACT: For environmental review information, please contact Associate Planner David Welch at the City of National City at (619) 336-4224 or dwelch@nationalcityca.gov or Assistant Community Development Director Martin Reeder at (619)-336-4313 or mreeder@nationalcityca.gov.

ATTACHMENTS:

- Figure 1. Project Vicinity Map
- Figure 2. Project Location Map
- Initial Study



Location: N:\2021\2021-285 National City Renewable Diesel Facility\WAPS\Location_Vicinity\National_City_Vicinity.mxd (TR)-trattelli 1/26/2022

Map Date: 1/26/2022
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Figure 1. Project Vicinity

2021-285 San Diego Clean Fuels LLC Renewable Diesel Facility



Figure 2. Project Location

2021-285 San Diego Clean Fuels LLC Renewable Diesel Facility

DRAFT

Initial Study

SAN DIEGO CLEAN FUELS FACILITY LLC PROJECT

National City, California

Lead Agency:



City of National City
1243 National City Boulevard
National City, California 91950

Prepared for:

USD Clean Fuels
811 Main Street, Suite 2800
Houston, Texas 77002

Prepared by:



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

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May 2024

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Appendix D – Fuel Consumption

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Appendix F – Geotechnical Investigation

Appendix G – Noise Model

Appendix H – Traffic Impact Study

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
ANSI	American National Standards Institute
APE	Area of Potential Effects
AT&SF	Atchison, Topeka, & Santa Fe
BMPs	Best Management Practices
BNSF	Burlington Northern Santa Fe
BSA	Biological Study Area
CalEEMod	California Emissions Estimator Model
CAL FIRE	California Department of Forestry and Fire Protection
Caltrans	California Department of Transportation
CAP	Climate Action Plan
CARB	California Air Resources Board
CACA	Corrective Action Consent Agreement
CAISO	California Independent System Operator
CalGreen	California Green Building Standards Code
CBC	California Building Code
CCA	California Coastal Act
CCR	California Code of Regulations
CEC	California Energy Commission
CEQA	California Environmental Quality Act
CGS	California Geologic Society
CH ₄	methane
CHRIS	California Historical Resources Information System
City	City of National City
CNEL	Community Noise Equivalent Level
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
County	San Diego County

Term	Description
CPUC	California Public Utilities Commission
CRHR	California Register of Historic Places
CWA	Clean Water Act
DA	Delineation Area
dB	decibel
dba	A-weighted decibel
DOC	Department of Conservation
DPM	diesel particulate matter
DTSC	Department of Toxic Substances Control
EIR	Environmental Impact Report
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FRP	Facility Response Plan
FTA	Federal Transit Administration
GHG	greenhouse gas
HRA	Health Risk Assessment
ICF	International Community Foundation
IEC	Infrastructure Engineering Corporation
IM	Medium Industrial
IMW	Interim Measures Workplan
IPCC	Intergovernmental Panel on Climate Change
JD	Jurisdictional Determination
kv	kilovolts
kWh	kilowatt-hours
L _{dn}	Day-Night Average Noise Level
L _{eq}	Equivalent Noise Level
LCFW	Low Carbon Fuel Standard
LCP	Local Coastal Program
LUST	leaking underground storage tank
mgd	million gallons per day
MLD	Most Likely Descendent
MND	Mitigated Negative Declaration
MRZ	Mineral Resource Zone
MSL	mean sea level
MTS	Metropolitan Transit System
NAHC	Native American Heritage Commission
NAS	Naval Air Station
ND	Negative Declaration
N ₂ O	nitrous oxide
NO _x	nitrogen oxides
NO ₂	nitrogen dioxide
NOE	Notice of Exemption
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OHV	off-highway vehicle
O ₃	ozone
PCB	polychlorinated biphenols

Term	Description
PEX	Plastic Express
PM _{2.5}	Particulate Matter Less than 2.5 Microns in Diameter
PM ₁₀	Particulate Matter Less than 10 Microns in Diameter
PPV	peak particle velocity
PRC	Public Resource Code
Proposed Project	San Diego Clean Fuels Facility LLC Project
PSI	Pacific Steel Incorporated
RAQS	Regional Air Quality Strategy
RCRA	Resource Conservation and Recovery Act
RHA	Rivers and Harbors Act of 1899
ROG	reactive organic gases
ROW	right-of-way
RWQCB	Regional Water Quality Control Board
SAF	Sustainable Aviation Fuel
SANDAG	San Diego Association of Governments
SCIC	South Coastal Information Center
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SDCWA	San Diego County Water Authority
SDG&E	San Diego Gas & Electric
SDNHM	San Diego Natural History Museum
SIP	State Implementation Plan
SMI	South Metro Interceptor
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SR	State Route
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TAC	toxic air contaminants
TCRs	tribal cultural resources
TNW	Traditional Navigable Waters
USACE	United States Army Corps of Engineers
USD-CF	USD Clean Fuels
USEPA	U.S. Environmental Protection Agency
UWMP	Urban Water Management Plan
VHFHSZ	Very High Fire Hazard Severity Zone
VMT	vehicle miles traveled
VOC	volatile organic compounds

1.0 BACKGROUND

1.1 Summary

Project Title:	San Diego Clean Fuels Facility LLC Project
Lead Agency Name and Address:	City of National City 1243 National City Boulevard National City, California 91950
Contact Person and Phone Number:	David Welch City of National City Associate Planner (619) 336-4224
Project Location:	The San Diego Clean Fuels Facility LLC Project is located in San Diego County in the City of National City (Figure 1). The Project Area is located between the existing buildings along Cleveland Avenue and the existing Burlington Northern Santa Fe (BNSF) Railway tracks and between Civic Center Drive and West 19th Street (Figure 2). The Project Area is approximately 6.5 acres and is primarily unimproved and undeveloped. The site address is 830 West 18th Street.
General Plan Designation:	Industrial
Zoning Designation:	Medium Manufacturing, Heavy Manufacturing

1.2 Introduction

The City of National City (City) is the Lead Agency for this Initial Study. The Initial Study has been prepared to identify and assess the anticipated environmental impacts of the San Diego Clean Fuels Facility LLC Project (Proposed Project). This document has been prepared to satisfy the California Environmental Quality Act (CEQA) (Public Resource Code [PRC], Section 21000 et seq.) and State CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.). CEQA requires that all state and local government agencies consider the environmental consequences of Projects over which they have discretionary authority before acting on those Projects. A CEQA Initial Study is generally used to determine which CEQA document is appropriate for a Project (Negative Declaration [ND], Mitigated Negative Declaration [MND], or Environmental Impact Report [EIR]).

1.3 Surrounding Land Uses/Environmental Setting

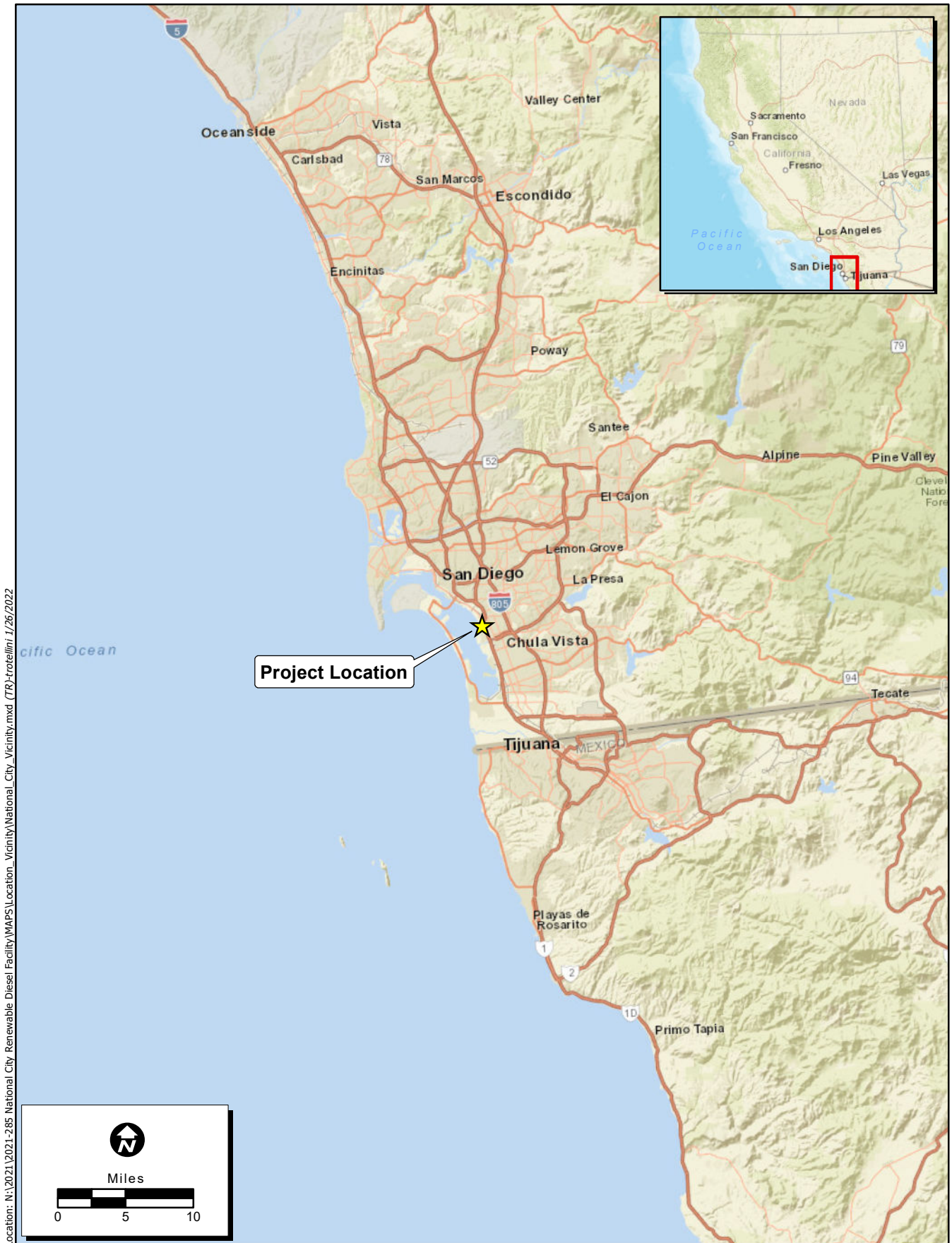
The San Diego Clean Fuels Facility LLC Project is located in San Diego County in the City of National City (Figure 1). The Project Area is located between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks and between Civic Center Drive and West 19th Street (Figure 2).

The Project is located on private property and within the Burlington Northern Santa Fe (BNSF) right-of-way (ROW). The Project Area is within the Medium Manufacturing (MM) and Heavy Manufacturing (HM) Zones and has a land use designation of Industrial/Salt Production. The Project Area is also located in the Coastal Zone, which requires a Coastal Development Permit. The Project is surrounded to the north, east, and south by Industrial/Salt Production land use designations and by Marine Related Industrial to the west, as described in Table 1-1.

Table 1-1. Surrounding Land Uses			
	Land Use Designation	Zoning Designation	Existing Land Use
Project Area	Industrial/Salt Production	MM: Medium Manufacturing HM: Heavy Manufacturing	Vacant Lot, Pacific Steel, Railroad
North	Industrial/Salt Production Military	MM: Medium Manufacturing Military	Naval Base San Diego, Warehouses
East	Industrial/Salt Production	MM – Medium Manufacturing	Industrial Businesses
South	Industrial/Salt Production	MM – Medium Manufacturing	Industrial Businesses
West	Military	MM: Medium Manufacturing Military	Costco Optical Laboratory, Naval Base San Diego

Source: City of National City 2019a; Port of San Diego 2020

The proposed use is a conditional use under the Medium Manufacturing zone; therefore a Conditional Use Permit (CUP) is required for the Project.



Location: N:\2021\2021-285 National City Renewable Diesel Facility\WAPS\Location_Vicinity\National_City_Vicinity.mxd (TR)-trotellini 1/26/2022

Map Date: 1/26/2022
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Figure 1. Project Vicinity

2021-285 San Diego Clean Fuels LLC Renewable Diesel Facility



Figure 2. Project Location

2021-285 San Diego Clean Fuels LLC Renewable Diesel Facility

2.0 PROJECT DESCRIPTION

2.1 Project Background

The citizens of California, through the California Legislature, and the Governor's executive branch have set the requirements for California air quality and the programs and tools for achieving those requirements. The California Low Carbon Fuel Standard (LCFS) is transforming the entire transportation sector in the state, including demand for biodiesel, renewable diesel, low carbon ethanol, electric vehicles, renewable natural gas, E85 higher ethanol blends, sustainable aviation fuels, among others. By maximizing contributions of all these renewable fuels, studies have concluded that greater carbon emission reductions are achievable.

The San Diego Clean Fuels Project contributes to carbon emissions reductions by:

- Delivering lower emissions via fewer fuel transit truck miles and cleaner fuels sooner than the current supply chain.
- Leveraging lower emissions rail transit to replace longer truck trips.
- Replacing existing longer distance truck trips with shorter distance local deliveries.
- Minimizing impacts from construction by locating the facility on existing Burlington Northern & Santa Fe (BNSF) railroad property.
- Reducing the State's reliance on fossil-based diesel fuel; increasing the sustainability of the critical transportation sector by reducing its emissions footprint.
- Expanding the availability of renewable fuels, offering lower emission fuels to California's construction, industrial, and agricultural industries and the public.
- Solving geographic imbalances in availability of cleaner, lower carbon fuels.

The method for transportation fuels that will most quickly and effectively achieve the State's goals is utilizing an "all of the above" strategy with a balance of technological and sustainable solutions, as opposed to an "either/or" approach that will delay the air quality benefits for the citizens of California. Using an "all of the above" approach to the LCFS allows advanced biofuels (renewable diesel, low carbon ethanol, biodiesel, etc.) to complement electric vehicle (EV) and zero emission vehicle (ZEV) adoption. Further, availability of advanced biofuels products will impact sectors that are difficult to electrify in the near/intermediate term. The proposed biofuels are not displacing EV's or delaying ZEV adoption, but delivering lower emission benefits that are available and proven.

The current LCFS policy is law and the California Air Resources Board (CARB) continues to strengthen the standard (which increases demand for lower emission fuels). Projects like the one proposed are needed to meet the LCFS standards. BNSF Railway and San Diego Clean Fuels, LLC are committed to serving the San Diego market with strategic, safe, and sustainable solutions.

2.1.1 Site History

The Project Area is located in an area that consisted of portions of blocks 274 and 275 in National City and, west of Harrison (formerly 9th) Avenue, the Atchison Topeka & Santa Fe (AT&SF) railroad grounds. The western boundary of the Project Area are the tracks of the Coronado Railroad, also called the "Belt Line," built in 1888 by John D. Spreckels, a San Diego civic leader and builder of Hotel Coronado.

In 1951, the Samuel Vener Company of Los Angeles built a celery packing shed at 1840 Harrison Avenue, on the AT&SF grounds immediately north of 18th Street, between the Coronado Railroad tracks to the west and Harrison Avenue to the east. The packing shed received fresh celery trucked in from nearby farms.

Pacific Steel Incorporated (PSI), BNSF's current lessee, currently operates a metal recycling facility at a facility located adjacent and north of the Project's proposed transloading area. PSI has leased this property and the eastern adjacent property (Assessor Parcel Number 559-040-52) from BNSF since 1981. This property was used by PSI as an auto shredder waste storage area from 1981 to about 1992. The Regional Water Quality Control Board (RWQCB) issued a Cleanup and Abatement Order to PSI in 1987 in response to discharges of contaminant water into the storm drain system, leading to the installation of four groundwater monitoring wells. After auto shredding operations ceased in 1992, the waste pile was removed and disposed offsite and the soil beneath the pile was excavated and stored in stockpiles onsite. A portion of the stockpiles remained onsite until 2002 (Group Delta 2021).

In 2002, the Department of Toxic Substances Control (DTSC) issued PSI an Imminent and Substantial Endangerment Order after finding heavy metals such as lead, zinc, copper, polychlorinated biphenyls (PCBs), and used oils in the soil (DTSC 2002). The ISE Order required immediate corrective action and submittal of a workplan to investigate the contamination releases. The RWQCB then transferred the regulatory lead for the investigation and remediation to DTSC, stating that it would consider rescinding the Order if DTSC became lead agency.

Following a Baseline Assessment Report prepared in 2004, PSI entered into a Corrective Action Consent Agreement (CACA) with DTSC for the aforementioned parcels. The CACA directed several phases of work to be completed on the property, including removal of large stockpiles of soil mixed with metal debris and remedial soil excavation. As of 2019, a portion of these activities had been completed, most notably the large stockpiles.

In 2010, SCS Engineers prepared a Stockpile Sampling Report which based on lead concentrations, identified soil stockpile PSI-1 as Resource Conservation and Recovery Act (RCRA) hazardous waste for disposal purposes. Other stockpiles were considered non-RCRA hazardous waste.

By 2014, PSI successfully transported and recycled approximately 27,000 tons of non-RCRA excavated soil from the property to its steel mill located in Mexicali, Mexico. The remaining work to complete remediation was to prepare and implement a workplan to identify additional areas of excavation and to transport the last remaining soil pile (approximately 8,000 cubic yards) from the property (Group Delta 2021). PSI was unable to secure authorization from Mexico's Secretariat of Environmental and Natural Resources to transport the remaining RCRA hazardous waste (PS-1) to Mexico and as a result, shipped the

forementioned waste to a Class I landfill in Buttonwillow, California in 2015 (*People v. Pacific Steel, Inc.* 2015).

On January 11, 2016, DTSC and PSI entered into a Stipulation for Entry of Final Judgement and Order for the adjoining PSI properties. The Stipulation and Final Judgement ordered PSI to conduct soil sampling for heavy metals around the perimeter of the location where the RCRA Hazardous Waste soil pile was located and to remove any residual contaminated soil in a manner consistent with their 2015 Draft Stockpile Removal Workplan (Group Delta 2021).

The Interim Measures Workplan (IMW) – BNSF Railway Property was approved by DTSC in 2021 for the remediation site pursuant to the CACA executed in 2004 between DTSC and PSI. The proposed cleanup goals of the IMW are to remove metals and PCB impacted soils previously identified in the BNSF facility to eliminate the risk to human health and the environment posed by impacted surface soils. The extent of soil removal will be contingent on the results of confirmation samples. Soils will be removed until the detection of metals and PCBs are below the proposed cleanup levels and commercial risk screening level, respectively. The implementation of IMW will conclude the cleanup efforts on the BNSF property. The cleanup measures to be conducted will reduce or eliminate the potential risks to the environment and surrounding neighborhood posed by the impacted soils at the BNSF property.

On May 31, 2022, DTSC filed a Notice of Exemption (NOE) to comply with the CEQA as part of the approval process for the IMW. DTSC determined that the IMW is exempt from CEQA under CCR Title 14, Section 15330 *Minor Actions Taken to Prevent, Minimize, Stabilize, Mitigate, or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substance*. Remediation of the BNSF property under the IMW consists of the removal of metals- and PCB-impacted soils resulting from past metals recycling operations by PSI at the northwestern portion of the site, which is leased from BNSF. Approximately 8,000 cubic yards of contaminated soil will be excavated and disposed of offsite at a permitted landfill (i.e., Copper Mountain Landfill, Arizona). Clean fill will be imported to return the Site to level grade. After completion of soil excavation and disposal activities, a land use covenant restricting future land uses to commercial/industrial uses will be recorded with the County Recorder's Office. Excavation activities will require approximately 600 truckloads (between seven and eight trucks per day) over an approximate 3-month time period to export the contaminated soils to a landfill. To return the Site to level grade, approximately 20,370 cubic yards of fill will be required which will require approximately 2,037 truckloads (between 22 and 23 trucks per day) over the same 3-month time period. Even though implementation of the Project will require a large number of truck trips, the trucks will travel exclusively through an industrial area for a short distance (0.5-mile) to reach Interstate 5 (I-5), which is the major thoroughway for the Project Area.

To control soil erosion, areas of cleanup activities will be wetted down on an as-needed basis. In addition, a 25-foot-tall dust screen covers the entire eastern side of the property fronting Cleveland Avenue, which is downwind based on prevailing winds in the area. The screen is made of a fine wet mesh designed to collect fine particles and was originally State of California – California Environmental Protection Agency Department of Toxic Substances Control 2 installed during the period when the facility was still conducting auto shredding. The dust screen will reduce or eliminate windblown dust from leaving the Site. Soil excavation and stockpile management activities will also be required to be conducted in

accordance with the County of San Diego Air Pollution Control District Fugitive Dust Control, which restricts the discharge of visible dust emissions.

A Remedial Action Completion Report (TRC 2023) dated September 13, 2023, was submitted to DTSC documenting BNSF's Voluntary Agreement and actions taken to remediate the property in accordance with the 2004 CACA. Conclusion presented in the report identified that impacted soils on the site were successfully removed and restoration of the site to the final grade was completed.

Figure 2 shows the portion of the Project Area that has undergone site remediation.

2.2 Project Objectives

USD Clean Fuels (USD-CF) proposes to construct a transloading facility within the BNSF Railway railroad ROW on adjacent private property. The Project Area is approximately 6.5 acres and is primarily unimproved and undeveloped. The area was formerly used for railroad and industrial purposes. A portion of the Project Area contains four closed release cases, and one open release case is located on the adjoining/adjacent properties. The open remediation case is the PSI property located adjacent and east of the Project Area at 1700 Cleveland Avenue. Site remediation has been completed by DTSC for the PSI property.

The new San Diego Clean Fuels Facility will reconfigure one existing rail spur and add truck loading spots to transload clean renewable and bio-fuels (renewable diesel, ethanol, and potentially sustainable aviation fuels at a later date) directly from rail cars into trucks for more efficient delivery to local retailers than the current supply chain. Each truck loading location will consist of a pump skid, controls, and above ground manifold system. Small amounts of lubricity, conductivity, and red dye will be added in-line to renewable diesel fuels during the transload process depending on the customer specifications. The rail car unloading and truck loading areas will be equipped with a containment system capable of containing the contents of 110 percent of an entire rail car volume.

Rail cars will be delivered to the facility by BNSF Railway and placed directly on designated receiving tracks. After completing the quality and quantity assurance requirements for the product in each rail car, facility operators will unload the fuel commodities directly from the rail cars into trucks via a short manifold system. Emissions from loading will be managed in compliance with the San Diego Air Pollution Control District's Air Permit requirements. Once emptied, the railroad will remove cars and replace them with full ones as needed.

Operating Hours and Personnel

Crews of 4 liquid fuel certified operators and a supervisor will work at the facility 24 hours per day, 7 days per week. Up to 10 crew members would be onsite at any given time (shift change). A total of 21 full-time operators with one supervisor per shift and one facility manager will be employed at the facility. A mobile office building will be provided on site and will incorporate the control center for the equipment, restrooms, and an area for driver check-in and receipt of Bills of Lading.

Vehicular Traffic

Truck traffic will enter the site from 18th Street and exit on W 19th Street and on to their retail client deliveries. A second rail line will be added at the existing grade crossing on Civic Center Drive to facilitate rail car movements. These trucks trips will replace existing trips of conventional fuels, delivering the benefits of the lower carbon, renewable fuels to the area.

Other Information

The category of these non-petroleum-based fuels ("biofuels") includes renewable diesel, biodiesel, ethanol and sustainable aviation fuel (SAF).

Renewable Diesel and **SAF** can be produced with new or recycled vegetable oils, animal fats, greases, algae, crop residues or woody biomass. Renewable diesel and SAF are also designated as a "drop-in" biofuels allowing them to fully replace petroleum-based fuels on a 1-to-1 basis with zero modification to storage facilities or combustion engine systems. California's Low Carbon Fuel Standard Certified Carbon Intensities shows renewable diesel reduces carbon intensity on average by 65% when compared with petroleum diesel.

Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. Biodiesel is often used as a blend with Renewable Diesel, as encouraged in the LCFS. Both renewable diesel and a blend of renewable diesel and up to 20% biodiesel can also be used to replace petroleum diesel with no changes or adverse effects to the engine, also with a reduction in greenhouse gas emissions.

Ethanol is a renewable fuel manufactured from plant bio-mass which when burned has very low emissions. Ethanol was mandated in California in 2003 to replace the cancer-causing MTBE as oxygenator for gasoline. It is the only oxygenator currently allowed for gasoline in California. Nearly all gasoline today is blended with 10% ethanol which acts as an oxygenator and serves to reduce tailpipe emissions. E-85 is a blend of up to 85% ethanol and petroleum gasoline but requires engine modifications.

With the ability to utilize a wide variety of resources to produce renewable diesel, biodiesel, ethanol and SAF, these biofuels are considered 100% sustainable. All of this makes these fuels environmentally, socially, and in long-term respects economically preferable to petroleum-based fuels, helping achieve the LCFS and move toward the State goal of carbon neutrality. The benefits of the improved supply chain add to the community and state-wide benefits.

2.3 Project Characteristics

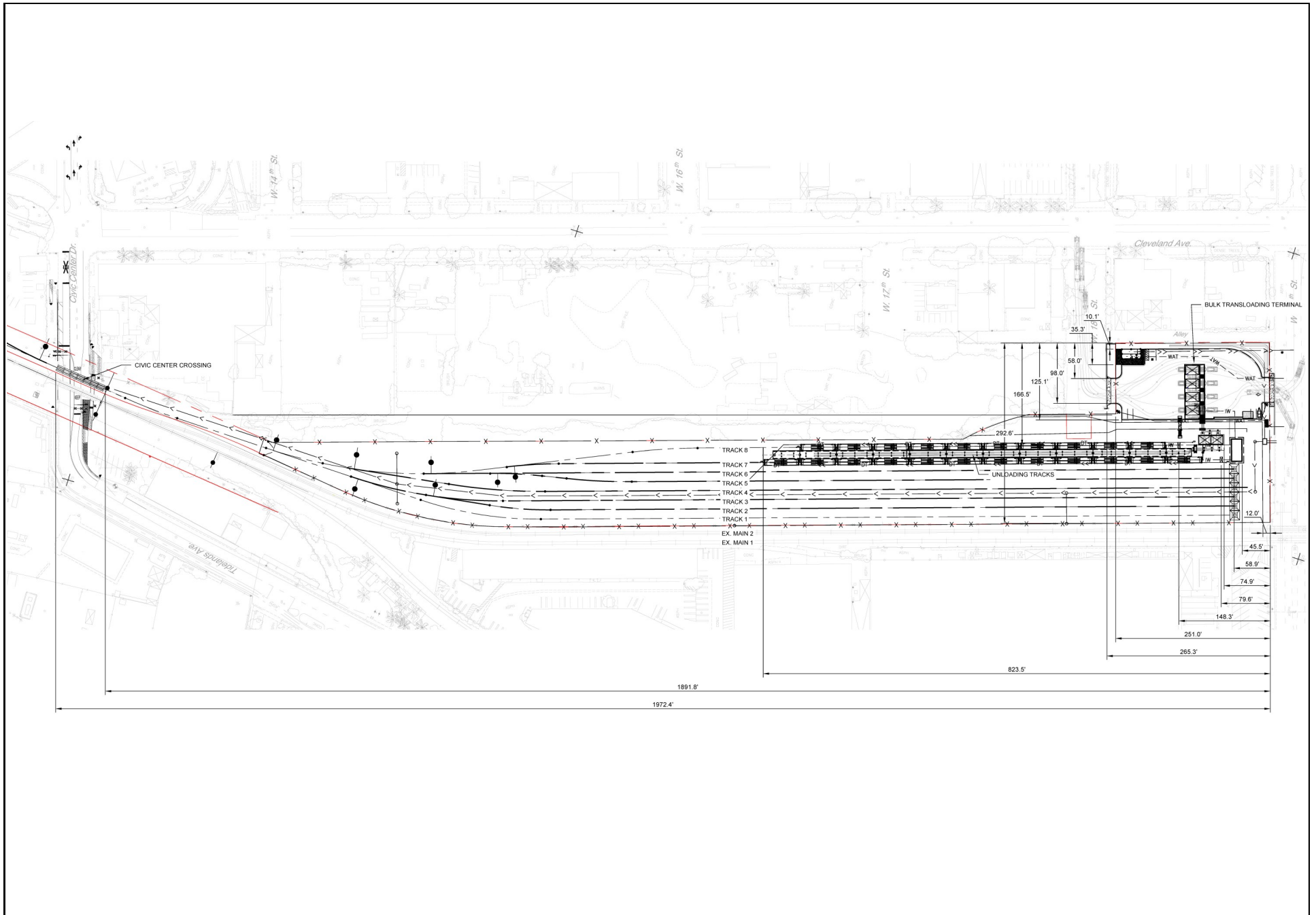
The Proposed Project consists of the following improvements:

1. Replace one existing rail turnout.
2. Install new receiving and departure track for the facility.
3. Install concrete slab pump pads at each transload pump system.
4. Install truck load slabs sloped to a drain in the center at each truck transload spot.
5. Provide a concrete lined containment basin and connect each truck transload slab drain to the basin.
6. Install pumps and piping to move fuels from rail cars to truck loading spots.

7. Provide containment enclosures for renewable diesel additive totes.
8. Provide track pans below railcars at the transloading rail for conveyance of potential spills to the remote containment basin.
9. Provide a mobile office building with control center, restrooms, and driver check-out area.
10. Provide all weather paving for the facility and circulation as needed to supplement existing yard drives.
11. Provide lighting and security for the site as required.
12. Provide an on-site Aqueous Film Forming Foam (A-FFF) Fluorine Free Firefighting platform with additional fire hydrants, as per the National City Fire Department (NCFD) requirements.

2.4 Project Timing

It is anticipated that construction would occur in 2024 to 2025.

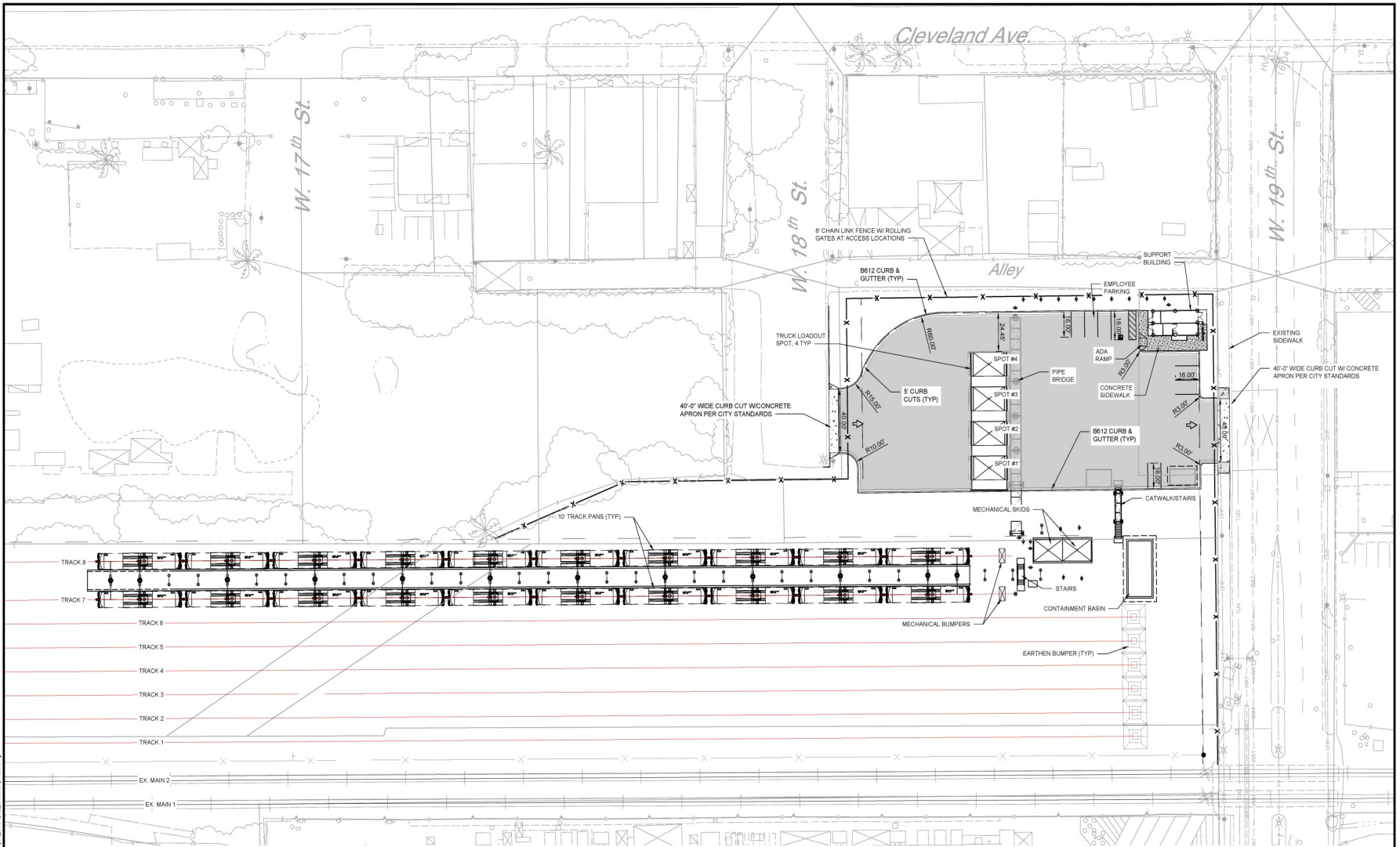


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Source: TKDA

Figure 3. Site Plan
2021-285 National City Renewable Diesel Facility

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DIR: K:\p-m\valley\coral\1833\0001\04_Production\01_CAD\02_Sheets\C120.dwg



1 CIVIL SITE PLAN
C120 SCALE: 1"=30'

NO.	DATE	BY	DESCRIPTION OF REVISIONS
C	10-21-22	SMI	60% RESUBMITTAL
B	06-17-22	SMI	50% SUBMITTAL
A	04-08-22	SMI	20% SUBMITTAL REVIEW



DESIGNED	DRAWN	CHECKED
WBS	WBS	SMI

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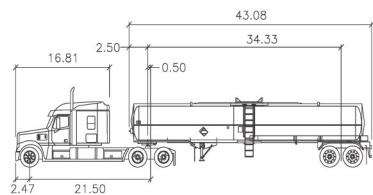
NATIONAL CITY, CALIFORNIA
SAN DIEGO CLEAN FUELS TERMINAL, LLC
CIVIL SITE PLAN

PROJECT NO.
18383 000
DRAWING NO.
C120



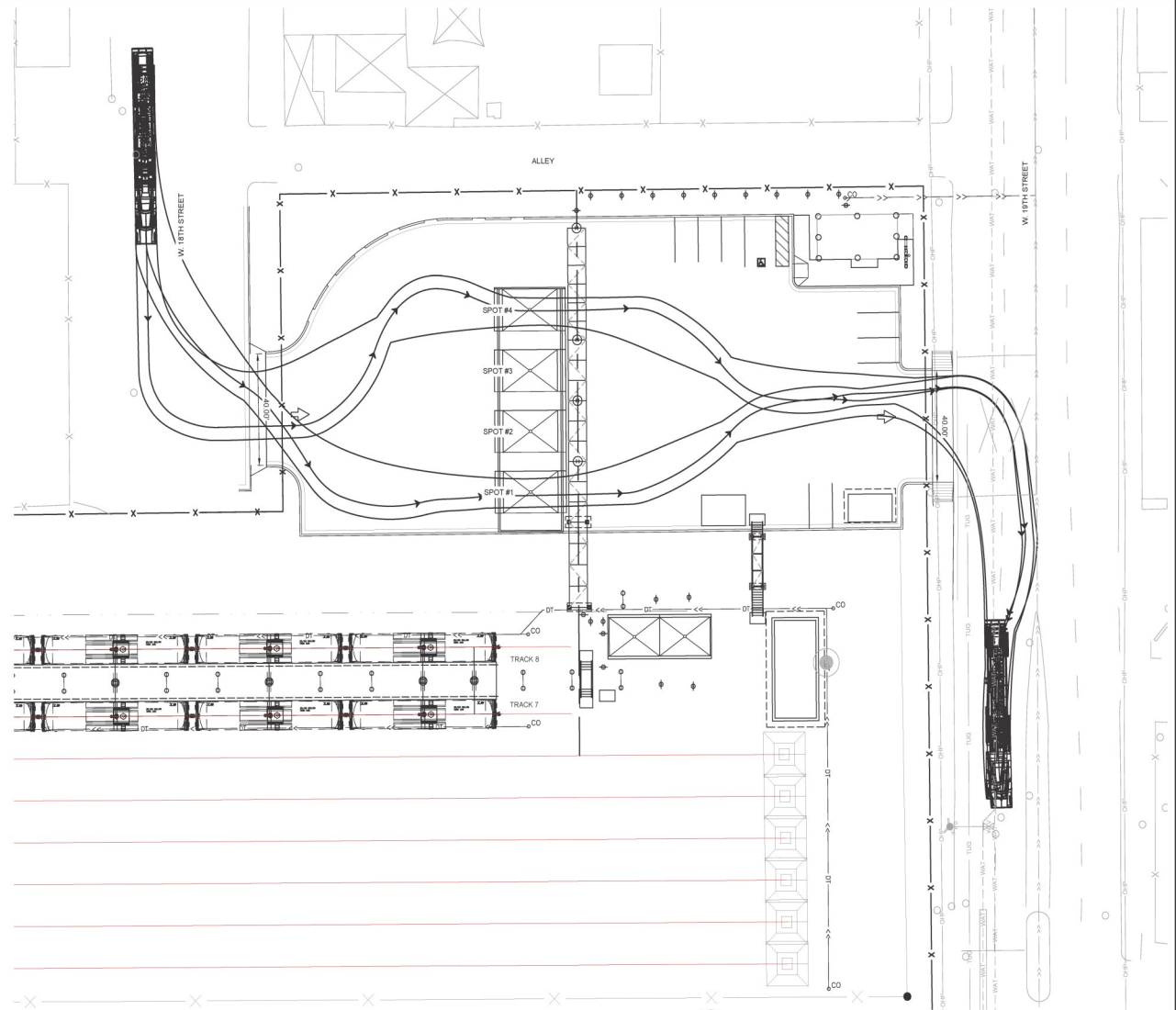
ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure 4. Existing Concept
2021-285 National City Renewable Diesel Facility



Brenner Tank Trailer

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 40.1
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.00		



1 AUTO TURN SITE LAYOUT
C130 SCALE: 1"=20'



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NO.	DATE	BY	DESCRIPTION OF REVISIONS
C	10-21-22	SMI	60% RESUBMITTAL
B	06-17-22	SMI	60% SUBMITTAL
A	04-08-22	SMI	20% SUBMITTAL REVIEW



DESIGNED	DRAWN	CHECKED
WBS	WBS	SMI

BAR IS ONE INCH ON FULL SIZE AND
ONE-HALF INCH ON HALF SIZE SHEETS.
IF NOT, ADJUST SCALES ACCORDINGLY.



NATIONAL CITY, CALIFORNIA
SAN DIEGO CLEAN FUELS TERMINAL, LLC
AUTO TURN SITE LAYOUT

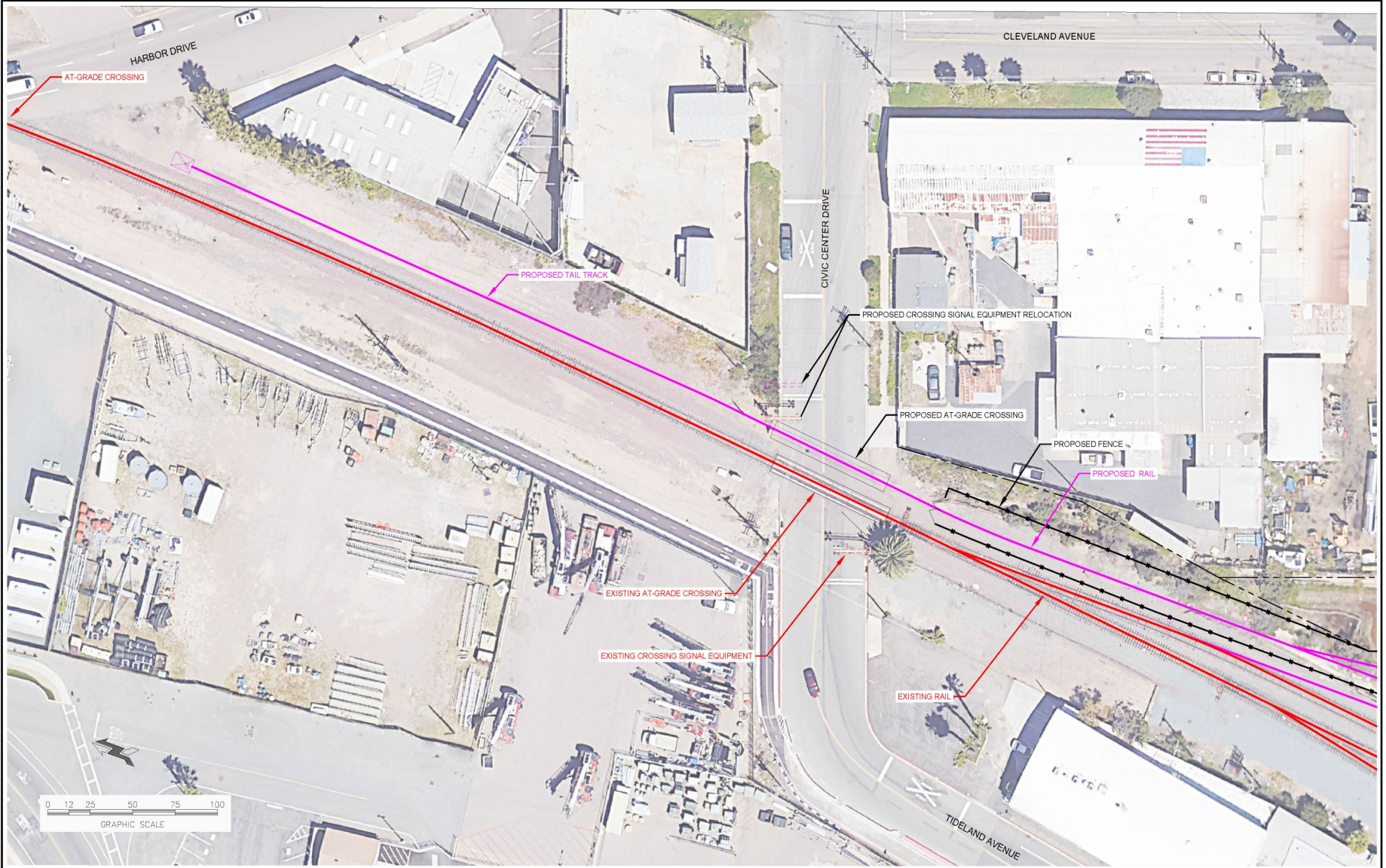
PROJECT NO.
18383.000
DRAWING NO.
C130



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ENVIRONMENTAL CONSULTANTS

Figure 5. Transfer Area Detail
2021-285 National City Renewable Diesel Facility

Project: G:\Clients\TD Group\Dropbox (TD)\8 TDG CAD\966 USD West Coast\Site-National City.dwg Sheet: Crossing Detail Designer: JAR Edit Time: 12/12/2021 8:33:29 AM Plot Time: 12/12/2021 8:33:37 AM



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NO.	DATE	VERSION
1	12 DEC 21	ORIGINAL



USD CLEAN FUELS



TRANSEVELOPMENT
GROUP

PROJECT	996
FILE	996SLNC1D
CTB	tdg-lw.ctb
DESIGNER	JAR
EDIT DATE	12/12/2021
SAVE TIME	8:33:29 AM
PLOT DATE	12/12/2021
PLOT TIME	8:33:37 AM

TAIL TRACK AT-GRADE CROSSING
USD FACILITY
NATIONAL CITY, CALIFORNIA



ECORP Consulting, Inc.
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Figure 6. Crossing Detail
2021-285 National City Renewable Diesel Facility

2.5 Regulatory Requirements, Permits, and Approvals

The following approvals and regulatory permits would be required for implementation of the Proposed Project:

- San Diego Regional Water Quality Control Board (RWQCB) – National Pollutant Discharge Elimination System (NPDES) Permit
- San Diego Air Pollution Control District – Permit to Operate
- City of National City – Conditional Use Permit
- City of National City – Coastal Development Permit

3.0 ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED AND DETERMINATION

3.1 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.

<input type="checkbox"/> Aesthetics	<input type="checkbox"/> Hazards/Hazardous Materials	<input type="checkbox"/> Recreation
<input type="checkbox"/> Agriculture and Forestry Resources	<input type="checkbox"/> Hydrology/Water Quality	<input checked="" type="checkbox"/> Transportation
<input checked="" type="checkbox"/> Air Quality	<input type="checkbox"/> Land Use and Planning	<input type="checkbox"/> Tribal Cultural Resources
<input checked="" type="checkbox"/> Biological Resources	<input type="checkbox"/> Mineral Resources	<input type="checkbox"/> Utilities and Service Systems
<input type="checkbox"/> Cultural Resources	<input type="checkbox"/> Noise	<input type="checkbox"/> Wildfire
<input type="checkbox"/> Energy	<input type="checkbox"/> Paleontological Resources	<input type="checkbox"/> Mandatory Findings of Significance
<input type="checkbox"/> Geology and Soils	<input type="checkbox"/> Population and Housing	
<input checked="" type="checkbox"/> Greenhouse Gas Emissions	<input type="checkbox"/> Public Services	

Determination

On the basis of this initial evaluation:

I find that the Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.	<input type="checkbox"/>
I find that although the 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.	<input type="checkbox"/>
I find that the Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.	<input type="checkbox"/>
I find that the 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.	<input checked="" type="checkbox"/>
I find that although the 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 Project, nothing further is required.	<input type="checkbox"/>

Martin Reeder, AICP
Planning Manager

Date

3.2 Evaluation of Environmental Impacts

3.2.1 Evaluation Process

- 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 offsite as well as onsite, 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 Section XVII, “Earlier Analyses,” 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 Incorporated,” describe the mitigation measures that 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.
 - b) The mitigation measure identified, if any, to reduce the impact to less than significant.

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4.0 ENVIRONMENTAL CHECKLIST AND DISCUSSION

4.1 Aesthetics

4.1.1 Environmental Setting

The City of National City is a small city comprised of a number of neighborhoods and districts. The visual character is typical of surrounding cities and contains several aesthetic resources such as scenic vistas of San Diego Bay and mountains to the east, cohesive residential neighborhoods, and a vibrant, pedestrian-scale downtown (City of National City 2011a).

4.1.1.1 Regional Setting

State Scenic Highways

The California Scenic Highway Program protects and enhances the scenic beauty of California's highways and adjacent corridors. A highway can be designated as scenic based on how much natural beauty can be seen by users of the highway, the quality of the scenic landscape, and if development impacts the enjoyment of the view. According to the California Department of Transportation (Caltrans), there are no state-designated scenic highways in the City (Caltrans 2019).

4.1.1.2 Visual Character of the Project Area

The Project Area is largely open ground with railroad tracks, railroad materials, and trash. There is an unconnected utility pole and an abandoned utility structure on the southern end of the Project Area. Four utility poles with active power lines are located in the Project Area. A paved parking lot is located in the southeast portion of the Project Area. Adjoining properties to the north consist of industrial structures, to the south by a vacant former rail yard, to the east by PSI (metals recycling and storage), and to the west by a commercial retail center and large warehouse. The character of the Project Area is industrial.

4.1.2 Aesthetics (I) Environmental Checklist and Discussion

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project involves constructing a transloading facility on the BNSF Railway railroad ROW property. San Diego Bay is located to the west and mountains are located to the east of the Project Area, however, any potential scenic views in the Project Area are obstructed by surrounding industrial development.

The Project Area's current visual character and quality of the site is degraded as the vacant lot is littered with debris, contains no structures, and contains minimal vegetation. The City's General Plan includes goals and policies for the protection of scenic resources and significant viewsheds (City of National City 2011a). The City considers natural areas such as San Diego Bay, open space, creeks, natural hillsides, and historic structures as scenic resources. None of these resources exist in the Project Area except for San Diego Bay; however, views of San Diego Bay from the Project Area are already obstructed by intervening structures. No scenic vistas are located within the Project Site of vicinity. Project implementation would not result in a substantial adverse effect on a scenic vista. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

According to the City's Comprehensive Land Use Update Draft EIR and Caltrans, there are no officially designated state scenic highways in the City (City of National City 2011a; Caltrans 2019). Therefore, no damage would occur to scenic resources, including trees, rock outcroppings, and historic buildings within a state scenic highway. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less Than Significant Impact.

The Proposed Project is located in an urban developed area characterized by industrial land uses. Project implementation would be consistent with the underlying land use and zoning designations and would

convert an unimproved railroad ROW into a transloading facility. Furthermore, site cleanup of the remediation portion of the Project Area under DTSC's purview has resulted in the removal of contaminated materials and soils and allow for site development.

Short-term construction activities could potentially temporarily degrade the existing visual character and quality of the surroundings. During the construction phase, various equipment, vehicles, building materials, stockpiles, disposal receptacles, and related activities would be visible in the Project Area. However, construction-related activities would be short-term and temporary in nature. Once completed, all general construction activities would cease, along with any construction-related aesthetic impacts.

Implementation of the Proposed Project would not degrade the existing visual character or quality of the site and its surroundings and would convert existing underutilized property into a developed use. Site development would comply with the City's landscape requirements and would add trees and vegetation along the perimeter. Because there are no designated scenic views currently visible from the Project Area, the Proposed Project would not conflict with existing zoning in the area or scenic quality regulations. A less than significant impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Except as provided in Public Resources Code Section 21099, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Would the project create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Proposed Project would provide lighting for the Project Area during operation as needed. This light source would not adversely affect day or nighttime views in the area, as views are already obstructed by surrounding industrial developments. Light fixtures to be installed as part of the Project are required to adhere to lighting standards established by the City's Municipal Code. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.1.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.2 Agriculture and Forestry Resources

4.2.1 Environmental Setting

"Forest land" as defined by PRC Section 12220(g) is "...land that can support 10-percent native tree cover of any species, including hardwoods, under natural conditions, and that allows for management of one or more forest resources, including timber, aesthetics, fish and wildlife, biodiversity, water quality, recreation, and other public benefits."

"Timberland" as defined by Public Resources Code Section 4526 means "...land, other than land owned by the federal government and land designated by the board as experimental forest land, which is available for, and capable of, growing a crop of trees of a commercial species used to produce lumber and other forest products, including Christmas trees. Commercial species shall be determined by the board on a district basis."

"Timberland zoned Timberland Production" is defined by PRC Section 51104(g) as "...an area which has been zoned pursuant to Section 51112 or 51113 and is devoted to and used for growing and harvesting timber, or for growing and harvesting timber and compatible uses, as defined in subdivision h."

The City of National City is almost completely developed and does not have any designated Prime or Unique Agricultural Land. The City must rely on urban agriculture to increase local food production since there are no large remaining open spaces for agricultural uses. Several examples of urban agriculture exist within the planning area, including the Stein Family Farm, the International Community Foundation (ICF) Center Garden, and the ICF Olivewood Garden (City of National City 2011b). According to the California Department of Conservation (DOC) Important Farmland Finder, the Project Area is classified as Urban and Built-Up Land. The Project Area is not located on or near Prime Farmland, nor is it under a Williamson Act Contract (DOC 2022).

4.2.2 Agriculture and Forestry Resources (II) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

According to the California Important Farmland Finder, the Project Area is located on land classified as Urban and Built-Up Land. Therefore, the Proposed Project would not be located on land classified as prime farmland, unique farmland, or farmland of statewide importance (DOC 2022). No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is not located on land zoned for agricultural use. According to the California Important Farmland Finder, the Project Area is mapped as Urban and Built-Up Land and not an agricultural preserve subject to a Williamson Act contract (DOC 2022). The Proposed Project would not conflict with zoning for agricultural use or a Williamson Act Contract. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is located on land currently designated for industrial/salt production uses and is surrounded by primarily industrial uses. The Project Area is not located on land designated for forest land, timberland, or timberland zoned timberland production. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is not zoned for forest land, timberland, or timberland production (DOC 2022). Therefore, the Proposed Project would not result in the loss of forest land or conversion of forest land to non-forest use. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area and surrounding properties are not currently designated for agriculture. The Project Area and areas to the north, east, south, and west are located on land designated as Urban and Built-Up Land (DOC 2022). Development in the Project Area would not result in the conversion of farmland to non-agricultural use or conversion of forest land to non-forest use. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.2.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.3 Air Quality**4.3.1 Environmental Setting**

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the San Diego Air Basin (SDAB), which encompasses the Project Area, pursuant to the regulatory authority of the San Diego Air Pollution Control District (SDAPCD).

ECORP prepared an Air Quality and Greenhouse Gas Emissions Assessment for the Proposed Project to estimate project-generated criteria air pollutants, health risk, and greenhouse gas (GHG) emissions attributable to the Project and to determine the level of impact the Project would have on the environment (ECORP 2024; Appendix A).

4.3.1.1 San Diego Air Basin

The Project Area is in National City in San Diego County (County). This region is within the SDAB. The topography in the SDAB varies greatly, from beaches on the west to mountains and desert on the east. Much of the topography in between consists of mesa tops intersected by canyon areas. The region's topography influences air flow and the dispersal and movement of pollutants in the basin. The mountains to the east prevent air flow mixing and prohibit dispersal of pollutants in that direction.

Regional climate and local meteorological conditions influence ambient air quality. The climate of the SDAB is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell, called the Pacific High-Pressure Cell (or Zone) influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high-pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Subsidence inversions occur during the warmer months as descending air associated with the Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights, when air near the ground cools through radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. During mild Santa Ana wind conditions, ambient air quality in the SDAB is affected by air quality in the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside counties). Air pollutants, specifically the components of smog, are transported to the County during relatively mild Santa Ana weather conditions. Winds blowing toward the southwest transport the polluted air from the South Coast Air Basin over the ocean. The sea breeze brings this air onshore into the County. When the transported smog is at ground level, the highest ozone (O₃) concentrations are measured at coastal and near-coastal monitoring sites. However, when the blown-in smog cloud is elevated, coastal sites may be passed over, and the transported O₃ is measured farther inland (ECORP 2024).

4.3.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. Ozone, coarse particulate matter (PM₁₀), and fine particulate matter (PM_{2.5}) are generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂) are local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant in certain scenarios. The region is designated as a nonattainment area for the federal ozone standard and is also a nonattainment area for the state standards for O₃, PM₁₀, and PM_{2.5} (CARB 2022). Health effects commonly associated with criteria pollutants are summarized in Table 4.3-1.

Table 4.3-1. Summary of Criteria Air Pollutants Sources and Effects

Pollutant	Major Manufactured Sources	Human Health and Welfare Effects
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CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO _x	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROG) and nitrous oxides in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM _{2.5} & PM ₁₀	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.

Source: California Air Pollution Control Offices Association (CAPCOA) 2013

4.3.1.3 Carbon Monoxide

CO, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease, and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing because of the Federal Motor Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

4.3.1.4 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and

influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x , such as NO and nitrogen dioxide (NO_2), attribute to the formation of O_3 and $\text{PM}_{2.5}$. Epidemiological studies have also shown associations between NO_x concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

4.3.1.5 Ozone

Ozone is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOC) also known as reactive organic gases (ROG) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

4.3.1.6 Sulfur Dioxide

SO_2 is a colorless gas with a pungent odor, however sulfur dioxide can react with other particulates in the atmosphere to form particulates that contribute to the haze effect. SO_2 standards have been developed by the U.S. Environmental Protection Agency (USEPA) to regulate all sulfur oxides, however SO_2 is by far the most abundant sulfur oxide in the atmosphere. Currently, SO_2 is primarily a result of the burning of fossil fuels for power generation and other industrial sources. Modern regulations on diesel fuel have greatly reduced the amount of SO_2 in the atmosphere and there are currently no areas in California that have levels of SO_2 that are not acceptable by state or federal standards.

4.3.1.7 Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and smaller than or equal to 2.5 microns in diameter ($\text{PM}_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly as a result of mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $\text{PM}_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x , sulfur oxides (SO_x) and VOCs. $\text{PM}_{2.5}$ can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $\text{PM}_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and

emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM₁₀ and PM_{2.5}. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM₁₀ and PM_{2.5}. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

4.3.2 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TAC) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Carcinogenic TACs can also have noncarcinogenic health hazard levels.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children, whose lungs are still developing, and the elderly, who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's PM_{2.5} air quality problems. Public exposure to TACs can result from emissions from normal operations, as well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

4.3.2.1 Diesel Exhaust

As noted above, CARB identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (i.e., heavy-duty, light-duty), engine operating conditions (i.e., idle, accelerate, decelerate), fuel formulations (i.e., high/low sulfur fuel), and the year of the manufacture of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk

among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

4.3.2.2 Ethanol

The storage of ethanol can potentially result in the emission of VOCs, which may pose health risks upon inhalation. The health effects from breathing VOCs emitted during ethanol storage depend on factors such as the concentration of VOCs, duration of exposure, and individual susceptibility. Some possible health effects associated with exposure to VOCs from stored ethanol include respiratory irritation, headaches and dizziness, eye irritation, nausea and vomiting. Chronic exposure to certain VOCs emitted during the storage of ethanol may be associated with long-term health risks, including damage to the liver, kidneys, and the central nervous system. It is important to note that the health risks depend on the specific types and concentrations of VOCs emitted during ethanol storage. Adequate ventilation and proper storage practices can help minimize the release of VOCs.

4.3.3 Ambient Air Quality

Ambient air quality in the Project Area can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Sherman Elementary School (450 24th Street, San Diego) air quality monitoring station, located approximately 3.5 miles north of the Project Area, is the closest station to the site and monitors ambient concentrations of O₃ and PM_{2.5}. The Chula Vista (80 East J Street, Chula Vista) monitoring station, located approximately 4 miles southeast of the Project, monitors ambient concentrations of PM₁₀. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potently affecting the Project region. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered *generally* representative of ambient concentrations in the development area. Table 4.3-2 summarizes the published data concerning O₃, PM₁₀, and PM_{2.5} since 2018 from the Sherman Elementary School and Chula Vista monitoring stations for each year that the monitoring data is provided.

Table 4.3-2. Summary of Ambient Air Quality Data			
Pollutant Scenario	2020	2021	2022
O₃ – Sherman Elementary School			
Max 1-hour concentration (ppm)	0.115	0.076	0.087
Max 8-hour concentration (ppm) (state/federal)	0.088 / 0.087	0.064 / 0.063	0.063 / 0.063
Number of days above 1-hour standard (state)	2	0	0
Number of days above 8-hour standard (state/federal)	3 / 3	0 / 0	0 / 0
PM₁₀ – San Diego Air Basin			
Max 24-hour concentration (µg/m ³) (state/federal)	* / 178.5	* / 122.8	* / 150.9
Annual Average (federal)	50.8	43.0	42.1

Table 4.3-2. Summary of Ambient Air Quality Data

Pollutant Scenario	2020	2021	2022
Number of days above 24-hour standard (state/federal)	* / 15.0	* / 0.0	* / 0.0
PM_{2.5} – Sherman Elementary School			
Max 24-hour concentration (µg/m ³) (state/federal)	54.4 / 51.9	26.3 / 25.6	20.8 / 20.8
Number of days above federal 24-hour standard	6.1	0.0	0.0

Sources: CARB 2023a

Notes: *Insufficient data available

µg/m³ = micrograms per cubic meter; ppm = parts per million

4.3.4 Regulatory Setting

4.3.4.1 San Diego Air Pollution Control District

The SDAPCD has the primary responsibility for controlling emissions from construction activity throughout the SDAB. In December 2005, the SDAPCD adopted the *Measures to Reduce Particulate Matter* in the SDAB. This document identifies fugitive dust as the major source of directly emitted particulate matter in the SDAB, with mobile sources and residential wood combustion as minor contributors. Data on PM_{2.5} source apportionment indicates that the main contributors to PM_{2.5} in the SDAB are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM₁₀ include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

- No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.
- Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.

There are other SDAPCD rules and regulations, not detailed here, which may apply to the Proposed Project, but are administrative or descriptive in nature. These include rules associated with fees,

enforcement and penalty actions, and variance procedures. The following additional rules and regulations would apply to the construction of the Project:

- Rule 50 *Visible Emissions*: Establishes limits to the opacity of emissions within the SDAPCD.
- Rule 51 *Nuisance*: Prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property.
- Rule 52 *Particulate Matter*: Establishes limits to the discharge of any particulate matter from non-stationary sources.
- Rule 54 *Dust and Fumes*: Establishes limits to the amount of dust or fumes discharged into the atmosphere in any single hour.
- Rule 67.0.1 *Architectural Coatings*: Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 67.7 *Cutback and Emulsified Asphalts*: Prohibits the sale and use of cutback and emulsified asphalt materials for the paving, construction or maintenance of parking lots, driveways, streets, and highways that exceed the County standards for the percent by volume of VOC that evaporate into the atmosphere under temperate conditions.

4.3.4.2 AB 617 Portside Community

AB 617 was established to reduce exposure to pollution in communities with high emission source densities. The Project is located in the Portside Community identified as a community with a high amount of emission sources. The *Maritime Clean Air Strategy* and *Community Emissions Reduction Plan* discussed below were developed through AB 617 programs to assist the community in reducing exposure to harmful emissions.

4.3.4.3 Community Emissions Reduction Plan

The Portside Community Emissions Reduction Plan (CERP) was adopted by both SDAPCD and CARB in 2021. The CERP aims to reduce the Portside community's exposure to emissions and promote health and environmental justice for the Portside community. The CERP is designed to guide the community and businesses to achieve emissions beyond regulatory standards, establishing various strategies to reduce criteria air pollutants emissions from various activities. The goals of the CERP are to be adjusted over time, as technology permits.

4.3.5 Air Quality (III) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

As part of its enforcement responsibilities, the U.S. Environmental Protection Agency (USEPA) requires each state with nonattainment areas to prepare and submit a State Implementation Plan (SIP) that demonstrates the means to attain the federal standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in federal nonattainment areas, using a combination of performance standards and market-based programs. The SDAPCD currently monitors implementation of the SIP in the SDAB through the Regional Air Quality Strategy (RAQS), which as previously described contains strategies and tactics to be applied in order to attain and maintain acceptable air quality in the SDAB. The RAQS is the applicable air quality plan for the Proposed Project. Air quality attainment plans outline emissions limits and control measures to achieve and maintain these standards by the earliest practical date. The SDAPCD has prepared the *2020 Plan for Attaining the National Ozone Standards*.

Project-level analysis is required to determine if the Proposed Project as an individual project would conflict with or obstruct implementation of the applicable air quality plan. The Project EIR will include an analysis of both construction and operational emissions which were modeled the California Emissions Estimator Model (CalEEMod), version 2022.1.1.21. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project-related emissions were compared to quantitative thresholds to determine the level of significance of this impact.

The air quality emission projections and emission reduction strategies in the RAQS are based on information from CARB and San Diego Association of Governments (SANDAG) regarding mobile and area source emissions. CARB mobile source emissions projections and SANDAG growth projections are derived from population and vehicle use trends, and land use plans developed by the cities and the County of San Diego as part of their general plans. A project that proposes development consistent with the growth anticipated in a general plan would be consistent with the RAQS and *2020 Plan for Attaining the National Ozone Standards*. Projects that propose development that is greater than the population growth projections and land use intensity of the adopted local general plan warrants further analysis to determine consistency with the RAQS and the SIP.

This topic will be further evaluated in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

Emissions associated with Project construction would be temporary and short term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as reactive organic gases (ROG) and nitrogen oxides (NO_x).

For the same reason presented above in response 4.3.2(a), potential short-term (i.e., construction) and long-term (i.e., operational) air quality impacts from the implementation of the Proposed Project will be evaluated. As noted above, CalEEMod will be used to estimate and report in the Project EIR the construction and operational emissions that could result from the implementation of the Proposed Project, and the estimated emissions will be compared to applicable significance thresholds.

This topic will be further evaluated in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
c) Expose sensitive receptors to substantial pollutant concentrations?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

The Project Area is surrounded by a Costco Optical Laboratory directly to the west, and industrial and retail on all other sides. The nearest sensitive receptor is McKinley Apartments, approximately 380 feet east of the Project. The nearest school is Kimball Elementary School located approximately 0.3 mile east of the Project Area. The EIR will assess the Project's emission of criterial air pollutants and compare emissions to the SDAPCD's established thresholds of significance for air quality for construction and operational activities. The EIR will identify the results of the health risk assessment (HRA) evaluating the cancer and non-carcinogenic health risk from the Project construction and operations.

This topic will be further evaluated in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant With Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less Than Significant Impact.

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word "strong" to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the Project Area. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

Similarly, during operation the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the Project Area from truck and locomotive activities. However, these emissions currently exist in the Project Area and vicinity and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the activity area. Furthermore, CARB implements rules that

limit diesel truck idling to 5 minutes statewide. Trucks queuing for load up are required to adhere to these anti-idling regulations.

According to the CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), the sources of the most common operational odor complaints received by local air districts include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors. The Project would result in the transloading of biodiesel, SAF, and ethanol utilizing various mechanical equipment to transfer from rail car to truck. Offensive odors associated with fuels and additives mostly come from combustion of these fuels and the Project would not result in combustion of these fuels. Additionally, the Project is subject to SDAPCD Rule 51 (Public Nuisance) which prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.3.6 Mitigation Measures

Potentially significant impacts were identified and will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.4 Biological Resources

4.4.1 Environmental Setting

Although most of the planning area is fully developed with residential, commercial, industrial, and military uses, various natural areas are found scattered throughout the planning area (City of National City 2011b). The Project Area is approximately 6.5 acres and is primarily unimproved and undeveloped. The area was formerly used for railroad and industrial purposes. A portion of the area contains four closed release cases, and one open release case is located on the adjoining/adjacent properties. The open remediation case is the PSI property located adjacent and east of the Project Area.

A literature search, biological reconnaissance survey, focused rare plant survey, and aquatic resources delineation were conducted for the Project to determine its the vegetation communities and wildlife habitats, potential to provide habitat for special-status plant and wildlife species, potential to facilitate wildlife movement, and potentially jurisdictional areas (ECORP 2022a; Appendix B).

A biological reconnaissance survey was conducted on March 17, 2022, to determine the vegetation communities and wildlife habitats in the Biological Study Area (BSA). The BSA includes the client-provided Project boundaries plus a 500-foot buffer. An aquatic resources delineation was conducted on March 17, 2022, to identify potentially jurisdictional areas in the Delineation Area (DA). The DA used includes client-provided Project boundaries (Project Area) plus a 50-foot buffer. A focused rare plant survey was conducted on June 22, 2022, during the appropriate blooming period for special-status plants species

determined to have potential to occur (Appendix B), particularly the target plant species San Diego Ambrosia (*Ambrosia pumila*). San Diego ambrosia was the highest priority target species because it is a federally listed endangered and California Rare Plant Rank (CRPR) 1B.1 species due to the disturbed nature of the Project Area and recent, close-proximity occurrences within the literature review search.

4.4.1.1 Vegetation Communities

Vegetation within the Project Area is composed of disturbed mulefat thickets and ornamental vegetation. Two additional land cover types occur within the Project Area and include developed and disturbed.

Disturbed Mulefat Thickets (Disturbed Baccharis salicifolia Shrubland Alliance)

Mulefat thickets are characterized as having mulefat dominant or co-dominant in the shrub canopy, typically with other native plant species. Within the Project Area, mulefat thickets are disturbed with sparse cover of mulefat and broom baccharis (*Baccharis sarothroides*) intermixed with nonnative and ornamental species such as red brome (*Bromus madritensis* ssp. *rubens*) and golden wattle (*Acacia pycnantha*). This vegetation community was not associated with any drainages and is present within an upland area of disturbed soils within the Remediation Area. Mulefat is known to be a colonizer of disturbed sites and is not considered a sensitive vegetation community.

Ornamental

The ornamental classification consists of vegetation that has been landscaped. The ornamental area of the Project Area is at the southern end of the Remediation Area and is comprised primarily of golden wattle intermixed with nonnative species such as red brome and sweet fennel (*Foeniculum vulgare*).

Other Land Cover Types

Disturbed

Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and dirt roads, but lacks development. Disturbed areas of the Project Area included a large portion of the Remediation Area, a majority of the Project Area situated between the railroad and parking lot. Some of these disturbed areas had remnant native plant species present; however, cover was scattered and intermittent. An active dump site and a homeless encampment were observed within the disturbed areas. In areas classified as disturbed, vegetation was absent or consisted primarily of nonnative species, such as tamarisk (*Tamarix* sp.), foxtail barely (*Hordeum murinum*), Russian thistle (*Salsola tragus*), smilo grass (*Stipa miliacea*), yellow sweet clover (*Melilotus indicus*), and crown daisy (*Glebionis coronaria*).

Developed/Urban Lands

Developed lands are those that are heavily affected by human use, including landscaping, residential homes, commercial or industrial buildings and associated infrastructure, and transportation corridors. Within the Project Area this included the parking lot, materials storage yard, and railroad tracks. Within the larger BSA, this included surrounding commercial buildings and roads. Landscaped areas consisted primarily of ornamental species Mexican fan palm (*Washingtonia robusta*) and sea lavender (*Limonium*

perezii) as well as nonnative species including tree tobacco (*Nicotiana glauca*), rabbitfoot grass (*Polypogon monspeliensis*), and crown daisy.

4.4.1.2 Plants

Plant species observed within the Project Area were generally characteristic of disturbed and ornamental vegetation communities. Special-status plants were not observed during the reconnaissance survey. Nonnative plant species observed on the Proposed Project were dominant within the disturbed areas, intermittently found within the disturbed native vegetation communities and amongst the ornamental vegetation. A full list of plant species observed on the Proposed Project is included in Appendix B.

4.4.1.3 Wildlife

Wildlife species observed within the BSA included those typical of urban environments such as rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), and Anna's hummingbird (*Calypte anna*). Special-status wildlife was not observed. ECORP biologists observed 17 bird species and four insect species during the reconnaissance survey (ECORP 2022a). A full list of wildlife species observed on the Proposed Project is included in Appendix B.

4.4.1.4 Soils

A soils analysis search was conducted using the Web Soil Survey data and two soil types occur in the BSA, Huerhuero-Urban land complex and Md Made land (ECORP 2022a). Soil characteristics observed in the field were generally consistent with what has been identified for these soil units and their official series descriptions.

4.4.1.5 Potential Waters of the U.S.

As a result of the aquatic resources delineation, two brow-ditches and one depressional feature were identified as aquatic resources. Features identified as an aquatic resource have wetland indicators present and/or physical evidence of flow including ordinary high-water mark (OHWM), defined bed and bank, presence of a clear and natural line impressed on the bank, the presence or absence of sediment deposits, litter/debris, and/or exposed roots indicating active hydrology within the channel.

Features 1 and 2 are the two brow-ditches functioning as stormwater conveyance systems. These features displayed ephemeral characteristics. These features daylight within the Project Area but enter and exit culverts underground. The features are dry or mostly dry, with straight, confined channels. There is minimal or no compositional difference between upland and riparian corridors along these channels and the soil particle size inside the channels are the same or roughly the same as the soil particle size outside of the channels. These features contain rooted upland plants within the streambed.

One 0.144-acre depressional feature exists within the southwest portion of the DA. According to aerial imagery, this the location of the current depression used to have partial overlap with Harrison Avenue (compacted road base) and the other half was covered by a concrete lot that was removed in approximately 2018. Ponding is evident on aerial imagery beginning in 2018. Review of aerial imagery for

2018 reveals that after the concrete lot was removed, off-highway vehicle (OHV) use occurred with some regularity and multiple tracks through the depression are evident as well as mud splatter marks in all directions indicating vehicles were repeatedly driving through the depression. During field work deep tire ruts were visible in the depression. The elevation of the depression was likely at or near that of Harrison Avenue in 2018, however OHV activities likely lowered the elevation of the depression. At the time of the survey this depression did not have standing water but there were dried algal mats present.

There are three manufactured drainage culverts and two storm drain inlets that generally serve the purpose of conveying stormwater and urban runoff underneath local roads, the railroad, and surrounding developed areas. These consist mostly of concrete features with metal drainage pipes that range from approximately one to two feet in diameter. They are largely unvegetated and lack a natural bed and bank. These features are likely associated with municipal storm sewer systems (ECORP 2022b; Appendix C).

The features observed and/or mapped within the DA do not appear to be tributary to Traditional Navigable Waters (TNW) or connected to interstate waters based on the field assessment and an assessment of aerial photographs, but rather the various features located in the DA are considered isolated. If the drainages recorded within the DA do not connect downstream to TNW or to Interstate Waters, as determined by the U.S. Army Corps of Engineers (USACE), then these aquatic resources may not be subject to regulation under the Clean Water Act (CWA). However, the depressional feature located within the DA is considered to be potentially jurisdictional under the California Coastal Act (CCA). Under the CCA, the presence of a single criteria/parameter (i.e., wetland vegetation or hydric soils or wetland hydrology) is sufficient to make a presumptive finding for the presence of wetlands. As such, wetlands defined under the CCA are more extensive in the DA as compared to USACE wetlands.

According to Regulatory Guidance Letter (08-02), an Applicant “may elect to use a preliminary Jurisdictional Determination (JD) to voluntarily waive or set aside questions regarding CWA/Rivers and Harbors Act of 1899 (RHA) jurisdiction over a particular site, usually in the interest of allowing the landowner or other ‘affected party’ to move ahead expeditiously to obtain a Corps permit authorization where the party determines that it is in his or her best interest to do so”. A significant nexus evaluation is not necessary to obtain a preliminary JD. An approved JD by the USACE would be necessary to determine if jurisdictional Waters of the U.S. are absent (ECORP 2022b).

4.4.1.6 Special-Status Plants

Numerous special-status plant species have been recorded within five miles of the Project Area, according to the California Natural Diversity Database (CNDDDB; California Department of Fish and Wildlife [CDFW] 2022), Information for Planning and Consultation (IPaC) (U.S. Fish and Wildlife Service [USFWS] 2022), and California Native Plant Society’s Electronic Inventory (CNPSEI; California Native Plant Society [CNPS] 2022). Of all available records, 72 special-status plant species were identified as those with the potential for occurrence within the vicinity of the Project Area. One species was present within the Project Area and the remaining 71 species were presumed absent based on their known habitat not occurring within the Project Area (Appendix B).

Special-Status Plant Species Present

Nuttall's acmispon (*Acmispon prostratus*) is designated as a CRPR 1B.1 plant species. This plant is known to occur at elevations between 0 and 10 meters (0 and 33 feet) and blooms between March and July. Nuttall's acmispon is known to inhabit coastal dunes and sandy soils of coastal scrub. Eight CNDDDB observations of this species occur within a 5-mile radius of the Project Area, five of which are within the last 20 years. The nearest record is 0.45 miles south of the Project Area from 2011 where it was observed growing in disturbed vegetation adjacent to the railroad tracks within the San Diego Bay National Wildlife Refuge. Potential habitat occurs within the Project Area for this species in the sandy soils of the disturbed habitats. This species was not observed during the biological reconnaissance survey but was identified during the focused rare plant survey effort growing in the area with loose sandy soils.

4.4.1.7 Special-Status Wildlife

The literature search documented 31 special-status wildlife species in the vicinity of the Proposed Project, 10 of which are federally and/or state-listed under the federal or California ESAs, respectively. Of the 31 special-status wildlife species identified in the literature review, two were found to have a moderate potential to occur and nine were found to have a low potential to occur; the remaining 20 species are presumed absent from the Project Area. None of the wildlife species were determined to have a high potential to occur (Appendix B).

4.4.1.8 Wildlife Movement Corridors

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas.

In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor uses and wildlife movement patterns varies greatly among species.

ECORP assessed the Proposed Project for its ability to function as a wildlife corridor. The Project Area is surrounded by urban development with major roads that block wildlife movement through the area. Furthermore, the Proposed Project does not connect valuable blocks of habitat and lacks valuable habitat itself.

4.4.2 **Biological Resources (IV) Environmental Checklist and Discussion**

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

The literature review resulted in 72 special-status plant species with potential to occur on the Proposed Project. Of these 72 special-status plants, one special-status plant species, Nuttall's acmispou, was observed within the Project Area. The results of the literature review and reconnaissance-level survey identified no special-status wildlife species present and 31 special-status wildlife species with potential to occur within the BSA. Of these 31 special-status wildlife species, two special-status wildlife species (osprey and western yellow bat), have a moderate potential to occur within the BSA due to the presence of highly suitable habitat and recent occurrences within 5 miles. Nine special-status wildlife species have a low potential to occur and 20 special-status wildlife species are presumed absent. Special-status wildlife species were not encountered within the proposed Project Area during the biological resources survey, and focused surveys were not conducted.

The vegetation within the Proposed Project and infrastructure adjacent to the site (e.g., utility poles, existing buildings) could provide nesting habitat for nesting birds and raptors protected by the Migratory Bird Treaty Act and California Fish and Game Code, and also provides foraging habitat for songbird and raptor species. Direct impacts to rare or special-status plant and wildlife species may occur as a result of the Proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities within the Project Area. Indirect impacts to rare or special-status plant species may occur due to habitat degradation and increased dust if present in the areas adjacent to the Project Area. Indirect impacts to rare or special-status wildlife species may occur due to habitat degradation, edge effects, construction noise, and other associated construction activities if present in the areas adjacent to the Project Area.

This topic will be further evaluated in the EIR and any appropriate Project-level mitigation will be identified in the EIR, if necessary.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project consists of disturbed vegetation communities and disturbed and developed land. These vegetation communities and land covers are not considered sensitive to local, state, or federal agencies; therefore, there is no impact and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Under the California Coastal Act (CCA), the presence of a single criteria/parameter is sufficient to make a presumptive finding for the presence of wetlands. As such, wetlands defined under the CCA are more extensive in the DA as compared to United States Army Corps of Engineers (USACE) wetlands. Under the CCA, potential wetlands defined by the California Coastal Commission total 0.144 acre. One depressional feature exists within the southwest portion of the DA. The location of the current depression used to have partial overlap with Harrison Avenue (compacted road base) and the other half was covered by a concrete lot that was removed in approximately 2018. Review of aerial imagery for 2018 reveals that after the concrete lot was removed, off-highway vehicle (OHV) use occurred with some regularity and multiple tracks through the depression are evident as well as mud splatter marks in all directions indicating vehicles were repeatedly driving through the depression. During field work deep tire ruts were visible in the depression. The elevation of the depression was likely at or near that of Harrison Avenue in 2018, however OHV activities likely lowered the elevation of the depression. At the time of the survey this depression did not have standing water but there were dried algal mats present (ECORP 2022b).

The features observed and/or mapped within the DA do not appear to be tributary to traditional navigable waters (TNW) or connected to interstate waters based on the field assessment and an assessment of aerial photographs, but rather than various features located in the DA are considered

isolated. If the drainages recorded within the DA do not connect downstream to TNW or to Interstate Waters, as determined by the USACE, then these aquatic resources may not be subject to regulation under the Clean Water Act (CWA). However, the depressional feature located within the DA is considered to be potentially jurisdictional under the CCA.

According to Regulatory Guidance Letter (08-02), an Applicant "may elect to use a preliminary jurisdictional delineation (JD) to voluntarily waive or set aside questions regarding CWA/Rivers and Harbors Act of 1899 (RHA) jurisdiction over a particular site, usually in the interest of allowing the landowner or other 'affected party' to move ahead expeditiously to obtain a Corps permit authorization where the party determines that it is in his or her best interest to do so. "A significant nexus evaluation is not necessary to obtain a preliminary JD. An approved JD by the USACE would be necessary to determine if jurisdictional Waters of the U.S. are absent.

For impacts to CCA areas, the Project would require consistency with the Local Coastal Program (LCP) and concurrence with the City, who presides over the LCP.

No resources waters of the U.S./State have been mapped within the DA. However, a single depressional feature that is likely jurisdictional under the CCA has been mapped. This acreage and extent represent a calculated estimation of the jurisdictional area within the proposed Project and is subject to modification during the agency verification process. Fill within jurisdictional features to the CCA would require City concurrence pursuant to the LCP (ECORP 2024). Impacts would be less than significant and no mitigation is required.

Although this impact has been determined to be less than significant, given the Project Area contains potential wetlands as defined by the California Coastal Commission, this topic will be further analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project was assessed for its ability to function as a wildlife corridor. The Project Area is surrounded by urban development with major roads that block wildlife movement through the area. Furthermore, the Proposed Project does not connect valuable blocks of habitat and lacks valuable habitat itself. The disturbed habitats within the Project Area provides an island of foraging and nesting habitat for wildlife species but they are not considered sensitive ecological areas. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The City's Municipal Code, Chapter 13.18 – Street Trees and Parkway Landscaping, specifically pertains to City trees. Every effort should be made to protect city trees during construction. If construction activity, or the movement of equipment will take place within the dripline area of any City tree, a fenced tree protection zone shall be established by the city engineer, or designee, except that the fenced area shall not include private property (City of National City 2019b). The Proposed Project consists of disturbed vegetation communities and disturbed and developed land. No City trees will be affected by the Proposed Project. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is not located within a Habitat Conservation Plan or Natural Community Conservation Plan area; therefore, the Proposed Project does not need to be consistent with any plans. No impact would occur and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.4.3 Mitigation Measures

A potentially significant impact was identified and will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.5 Cultural Resources

4.5.1 Environmental Setting

4.5.1.1 Ethnohistory

During the Lake Prehistoric Period, National City was part of the territory of the Kumeyaay. The Kumeyaay (also known as Ipai and Tipai) are the Yuman-speaking native people of central and southern San Diego County and the northern Baja Peninsula in Mexico. The ancestral lands of the Kumeyaay extend north from Todos Santos Bay near Ensenada, Mexico to Agua Hedionda Lagoon in north San Diego County, and east to the west side of the Imperial Valley. The Kumeyaay were geographically and linguistically divided into western and eastern Kumeyaay. The western Kumeyaay lived along the coast and in the valleys along the drainages west of the mountains. The eastern Kumeyaay lived in the canyons and desert east of the mountains. The Kumeyaay population was estimated to be between 10,000 and 20,000 at the time of European contact, based on Spanish accounts and ethnographies (ECORP 2022c).

4.5.1.2 Property Specific History

The Project Area is located in an area that consisted of portions of blocks 274 and 275 in National City and, west of Harrison (formerly 9th) Avenue, the Atchison, Topeka, & Santa Fe (AT&SF) railroad grounds. The western boundary of the Project Area are the tracks of the Coronado Railroad, also called the "Belt Line," built in 1888 by John D. Spreckels, a San Diego civic leader and builder of Hotel Coronado. The Coronado Railroad delivered building materials, and then passengers, south from San Diego through the AT&SF grounds at National City and then north up the Silver Strand to Coronado Island and the hotel site. In 1908, Spreckels merged the Coronado Railroad with its competitor, the National City & Otay Railway. Spreckels then integrated both into the new San Diego & Arizona Railway system, a Southern Pacific-affiliated transcontinental main line from San Diego to Yuma. In 1951, the Samuel Vener Company of Los Angeles built a celery packing shed at 1840 Harrison Avenue, on the AT&SF grounds immediately north of West 18th Street, between the Coronado Railroad tracks to the west and Harrison Avenue to the east. Immediately north of the Vener packing shed, at 1802 Harrison Avenue, Martin Ito, a longtime San Diego County produce grower, established a similar packing shed which handled many varieties of produce (ECORP 2022c).

4.5.2 Cultural Resources Inventory and Evaluation

A Cultural Resources Inventory and Evaluation Report was prepared by ECORP Consulting, Inc. (ECORP 2022c) for the Proposed Project to determine if cultural resources were present in or adjacent to the Area of Potential Effects (APE) and assess the sensitivity of the APE for undiscovered or buried cultural resources. The terms Project Area and APE are interchangeable for the purpose of this document. The inventory included a records search, literature review, and field survey.

A records search for the property was requested from the South Coastal Information Center (SCIC) of the California Historical Resources Information System (CHRIS) at San Diego State University on January 28, 2022. The purpose of the records search was to determine the extent of previous surveys within a one-mile radius of the Proposed Project location, and whether previously documented precontact or historic-

period archaeological sites, architectural resources, or traditional cultural properties exist within this area. The records search results indicate that 65 cultural resources investigations had previously been conducted in or within one mile of the Project Area. Five of these previously conducted investigations overlap a portion of the Project Area. Seventy-five cultural resources were previously recorded within one mile of the Project Area as a result of these investigations. Two cultural resources have been previously identified within the Project Area: P-37-013073, the Coronado Railroad; and P-37-024739, the Burlington Northern Santa Fe (formerly Atchison, Topeka and Santa Fe) Railway. P-37-013073 was previously evaluated and found not eligible for inclusion on the National Register of Historic Places (NRHP) or California Register of Historical Resources (CRHR). P-37-024739 was previously evaluated and found eligible for the NRHP and CRHR.

Additional sources were reviewed for the cultural resources inventory and evaluation. The National Register Information System did not list any eligible or listed properties within the Project Area. No California Historical Landmarks were identified within the Project Area. A search of historic General Land Office land patent records from the Bureau of Land Management's patent information database revealed no Public Land Survey System survey records. The Project Area overlaps a portion of the El Rancho de la Nación land grant awarded by the Mexican Governor of California, Pio Pico, to his brother-in-law, John Forester, in 1845. An 1840s map of the rancho produced by Forester shows no evidence of buildings or structures on the property. The Caltrans Bridge Local and State Inventories does not list any historic bridges in the Project Area.

The Native American Heritage Commission (NAHC) was contacted on January 28, 2022 to request a search of the Sacred Lands File for the Project Area. In requesting a search of the Sacred Lands File, information from the Native American community regarding tribal cultural resources (TCRs) was solicited, but the responsibility to formally consult with the Native American community lies exclusively with the federal and local agencies under applicable state and federal law. ECORP was not delegated authority by the lead agencies to conduct tribal consultation. The search of the Sacred Lands File was negative and failed to indicate the presence of Native American cultural resources in the Project Area.

On May 3, 2022, a pedestrian survey was conducted for the approximate 10.9-acre Project Area. The Project boundary at the time of survey was approximately 10.9 acres but has been refined to 6.5 acres over the course of Project planning. At that time, developed and exposed ground surfaces were examined for indications of surface or subsurface cultural resources. No subsurface investigations or artifact collections were undertaken during the pedestrian survey. Of special note is that a large portion of the Project Area extending along the eastern edge of the Project Area was not accessible during the survey. This portion of the Project Area is contaminated with heavy metals, volatile organic compounds, total petroleum hydrocarbons, and polychlorinated biphenyl and is undergoing remediation under the direction of DTSC as lead agency. ECORP relocated and recorded portions of historic-period sites P-37-013073 and P-37-024739 during the field survey and found that P-37-013073 remains not eligible for inclusion on the NRHP or CRHR, while P-37-024739 remains eligible for inclusion on the NRHP and CRHP. ECORP also identified and recorded six historic-period sites, NCD-001, NCD-002, NCD-003, NCD-004, NCD-005, and NCD-006. ECORP found that none of these previously unrecorded resources are eligible for inclusion on the NRHP or CRHP under any criteria (ECORP 2022c).

4.5.3 Cultural Resources (V) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

City's General Plan Open Space and Agriculture Element identifies cultural and paleontological resources located within the City. Thirty cultural resources were identified within National City, 9 of which are prehistoric and 21 of which are historical resources. The historic properties list included 99 historic structures including those already on the National Register, however, most of the buildings on the list have not been evaluated for their potential ability to be listed on the NRHP. There are four structures in the City that have been placed on the NRHP and are also considered significant by the state: Granger Music Hall, Brick Row, the Santa Fe Rail Depot, and St. Matthew's Episcopal Church; none of these structures are within or near the Project Area (City of National City 2011b).

ECORP evaluated cultural resources NCD-001, NCD-002, NCD-003, NCD-004, NCD-005, and NCD-006. ECORP found that none of these resources are eligible for inclusion on the NRHP or CRHP under any criteria. Additionally, ECORP revisited sites P-37-013073 and P-37-024739 and found that P-37-013073 remains not eligible for inclusion on the NRHP or CRHP, while P-37-024739 remains eligible for inclusion on the NRHP and CRHP. Therefore, resources NCD-001, NCD-002, NCD-003, NCD-004, NCD-005, NCD-006, and P-37-013073 are not Historical Resources under NHPA and CEQA, while P-37-024739 is a Historic Resource under NHPA and CEQA.

The Proposed Project includes the construction and placement of a mechanical railroad switch (i.e., turnout) to bring rail cars from the railroad mainline to the Project Site along the segment of rail that is associated with the P-37-024739 feature. The installation of the railroad switch mechanism would be added on to the existing railroad and would not result in a significant impact to the segment of railroad associated with the P-37-024739 feature as it would not result in the diminishment in the integrity of the resource.

Ground disturbance associated with this Project has the potential to impact surface and previously unknown subsurface historic resources should any be present. Impacts would be less than significant with incorporation of Mitigation Measure CUL-1.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

The majority of the Project Area has been geologically mapped as artificial fill that was deposited from historic-period and modern activities. A small area located in the very southeastern portion of the Project Area is mapped as young alluvial flood-plain deposits dating from the Late Pleistocene to the Holocene (0.126 – 0 Ma). These Holocene surface sediments in the southeastern portion of the Project Area are consistent with strata that precontact archaeological deposits have been previously identified and documented in the region. Due to the presence of sediments contemporaneous with human occupation of the region and the presence of previously recorded precontact resources in the surrounding area and within the Project Area, the potential for subsurface resources in previously undisturbed soils is considered moderate. CEQA requires the Lead Agency to address any unanticipated cultural resource discoveries during Project construction. Impacts would be less than significant with incorporation of Mitigation Measures CUL-1, CUL-2, and CUL-3.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

No formal cemeteries are located in or near the Project Area. Most Native American human remains are found in prehistoric archaeological sites. No impacts to human remains are anticipated; however, if any are encountered during Project-related ground-disturbing construction activities, existing regulations (§7050.5 of the California Health and Safety Code, §5097.98 of the California PRC, and Assembly Bill [AB] 2641) are in place that detail the actions that must be taken if such discoveries are made. Implementation of Mitigation Measure CUL-3 would reduce impacts to a less than significant level.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.5.4 Mitigation Measures

- CUL-1: Archaeological Monitoring.** A qualified professional archaeologist, meeting or working under the direction of someone meeting the Secretary of the Interior's Professional Qualifications Standards for prehistoric and historic archaeology should be retained to monitor all ground-disturbing activities associated with Project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that will disturb original (pre-project) ground. The monitor must have the authority to temporarily pause activity at the location in the event of an unanticipated discovery, so that he or she can direct the procedures in section 6.3.3.
- CUL-2: Native American Monitoring.** A Native American monitor from a tribe that is traditionally and culturally affiliated with the Project Area should be retained to monitor all ground-disturbing activities associated with Project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that will disturb original (pre-project) ground. The Native American monitor should have the authority to temporarily pause activity at the location in the event of an unanticipated discovery, so that he or she can coordinate with the Project archaeologist on the identification of a potential cultural resource and the Project archaeologist can direct the procedures in the following section.
- CUL-3: Post-Review Discovery Procedures.** If subsurface deposits believed to be cultural or human in origin are discovered during construction, all work must halt within a 100-foot radius of the discovery. A qualified professional archaeologist, meeting the Secretary of the Interior's Professional Qualification Standards for pre-contact and historic archaeology, shall be retained to evaluate the significance of the find, and shall have the authority to modify the no-work radius as appropriate, using professional judgment. The following notifications shall apply, depending on the nature of the find:
- If the professional archaeologist determines that the find does not represent a cultural resource, work may resume immediately, and no agency notifications are required.
 - If the professional archaeologist determines that the find does represent a cultural resource from any time period or cultural affiliation, he or she shall immediately notify the City, and applicable landowner. The agencies shall consult on a finding of eligibility and implement appropriate treatment measures if the find is determined to be a Historical Resource under CEQA, as defined in Section 15064.5(a) of the CEQA Guidelines, or a Historic Property, as defined in 36 CFR 60.4. Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the site either: 1) is not a Historical Resource under CEQA or Section 106; or 2) that the treatment measures have been completed to their satisfaction.
 - If the find includes human remains, or remains that are potentially human, he or she shall ensure reasonable protection measures are taken to protect the discovery from

disturbance (AB 2641). The archaeologist shall notify the San Diego County Medical Examiner (per § 7050.5 of the Health and Safety Code). The provisions of § 7050.5 of the California Health and Safety Code, § 5097.98 of the California PRC, and AB 2641 will be implemented. If the Medical Examiner determines the remains are Native American and not the result of a crime scene, the Medical Examiner will notify the NAHC, which then will designate a Native American Most Likely Descendent (MLD) for the Project (§ 5097.98 of the PRC). The designated MLD will have 48 hours from the time access to the property is granted to make recommendations concerning treatment of the remains. If the landowner does not agree with the recommendations of the MLD, the NAHC may mediate (§ 5097.94 of the PRC). If no agreement is reached, the landowner must rebury the remains where they will not be further disturbed (§ 5097.98 of the PRC). This will also include either recording the site with the NAHC or the appropriate Information Center; using an open space or conservation zoning designation or easement; or recording a reinternment document with the county in which the property is located (AB 2641). Work may not resume within the no-work radius until the lead agencies, through consultation as appropriate, determine that the treatment measures have been completed to their satisfaction.

4.6 Energy

4.6.1 Environmental Setting

California relies on a regional power system comprised of a diverse mix of natural gas, renewable, hydroelectric, and nuclear generation resources. Natural gas provides California with a majority of its electricity followed by renewables, large hydroelectric and nuclear (California Energy Commission [CEC] 2021). San Diego Gas & Electric (SDG&E) currently provides natural gas and electricity transmission and distribution infrastructure in San Diego County. SDG&E has undertaken several efforts to promote energy efficiency and reduce the climate impacts of energy usage. For instance, SDG&E has committed to achieving net zero emissions by 2045, in alignment with state goals. Additionally, approximately 55 percent of the power provided by SDG&E comes from renewable sources. SDG&E is regulated by the California Public Utilities Commission (CPUC), which is responsible for making sure that California utilities' customers have safe and reliable utility service. The program's energy needs would be supplied through the various combinations of energy resources available within the program areas, and the analysis in this section takes into account the anticipated future SDG&E energy resource use patterns.

The CPUC regulates SDG&E. The CPUC has developed energy efficiency programs such as smart meters, low-income programs, distribution generation programs, self-generation incentive programs, and a California solar initiative. Additionally, the CEC maintains a power plant database that describes all of the operating power plants in the state by County. San Diego County contains approximately 22 solar-powered plants, 3 wind-powered, 30 natural gas-fired, 4 hydrogen fuel cells, and 8 powered by the incineration of biomass (CEC 2021).

4.6.1.1 Existing Transmission and Distribution Facilities

The components of transmission and distribution systems include the generating facility, switching yards and stations, primary substation, distribution substations, distribution transformers, various sized transmission lines, and the customers. The U.S. contains over a quarter million miles of transmission lines, most of them capable of handling voltages between 115 kilovolts (kv) and 345 kv, and a handful of systems of up to 500 kv and 765 kv capacity. Transmission lines are rated according to the amount of power they can carry, the product of the current (rate of flow), and the voltage (electrical pressure). Generally, transmission is more efficient at higher voltages. Generating facilities, hydro-electric dams, and power plants usually produce electrical energy at fairly low voltages, which is increased by transformers in substations. From there, the energy proceeds through switching facilities to the transmission lines. At various points in the system, the energy is “stepped down” to lower voltages for distribution to customers. Power lines are either high voltage (115, 230, 500, and 765 kv) transmission lines or low voltage (12, 24, and 60 kv) distribution lines. Overhead transmission lines consist of the wires carrying the electrical energy (conductors), insulators, support towers, and grounded wires to protect the lines from lightning (called shield wires). Towers must meet the structural requirements of the system in several ways. They must be able to support both the electrical wires, the conductors, and the shield wires under varying weather conditions, including wind and ice loading, as well as a possible unbalanced pull caused by one or two wires breaking on one side of a tower. Every mile or so, a “dead-end” tower must be able to take the strain resulting if all the wires on one side of a tower break. Every change in direction requires a special tower design. In addition, the number of towers required per mile varies depending on the electrical standards, weather conditions, and the terrain. All towers must have appropriate foundations and be available at a fairly regular spacing along a continuous route accessible for both construction and maintenance. A ROW is a fundamental requirement for all transmission lines. A ROW must be kept clear of vegetation that could obstruct the lines or towers by falling limbs or interfering with the sag or wind sway of the overhead lines. If necessary, land acquisition and maintenance requirements can be substantial. The dimensions of a ROW depends on the voltage and number of circuits carried and the tower design. Typically, transmission line rights-of-way range from 100 to 300 feet in width.

The California Independent System Operator (CAISO) manages the flow of electricity across the high-voltage, long-distance power lines (high-voltage transmissions system) that make up 80 percent of California’s and a small part of Nevada’s grid. This nonprofit public benefit corporation keeps power moving to and throughout California by operating a competitive wholesale electricity market, designed to promote a broad range of resources at lower prices, and managing the reliability of the electrical transmission grid. In managing the grid, CAISO centrally dispatches generation and coordinates the movement of wholesale electricity in California. As the only independent grid operator in the western U.S., CAISO grants equal access to 26,000 circuit miles of transmission lines and coordinates competing and diverse energy resources into the grid where it is distributed to consumers. Every 5 minutes, CAISO forecasts electrical demand and dispatches the lowest cost generator to meet demand while ensuring enough transmission capacity for delivery of power.

4.6.1.2 Energy Consumption

Electricity use is measured in kilowatt-hours (kWh), and natural gas use is measured in therms. Vehicle fuel use is typically measured in gallons (e.g., of gasoline or diesel fuel), although energy use for electric vehicles is measured in kWh.

The electricity consumption associated with all non-residential uses in San Diego County from 2018 to 2022 is shown in Table 4.6-1. As indicated, the demand has increased since 2018.

Table 4.6-1. Non-Residential Electricity Consumption in San Diego County 2018-2022	
Year	Electricity Consumption (kilowatt hours)
2022	12,802,545,160
2021	12,353,416,157
2020	11,722,882,508
2019	12,453,450,012
2018	12,793,962,295

Source: CEC 2023

The natural gas consumption associated with all non-residential uses in San Diego County from 2018 to 2022 is shown in Table 4.6-2. As indicated, the demand has increased since 2018.

Table 4.6-2. Non-Residential Natural Gas Consumption in San Diego County 2018-2022	
Year	Natural Gas Consumption (therms)
2022	241,451,144
2021	227,554,905
2020	202,366,603
2019	230,140,620
2018	217,997,747

Source: CEC 2023

Automotive fuel consumption in San Diego County from 2019 to 2023 is shown in Table 4.6-3. Fuel consumption has decreased between 2019 and 2023.

Table 4.6-3. Automotive Fuel Consumption in San Diego County 2019-2023	
Year	Total On-road Fuel Consumption
2023	1,548,885,694
2022	1,563,236,305
2021	1,569,307,501
2020	1,398,441,429
2019	1,592,511,108

Table 4.6-3. Automotive Fuel Consumption in San Diego County 2019-2023

Year	Total On-road Fuel Consumption
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Source: CARB 2023a

4.6.2 Energy (VI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The impact analysis focuses on the four sources of energy that are relevant to the Proposed Project: electricity, the equipment-fuel necessary for Project construction, and the automotive fuel necessary for Project operations. Addressing energy impacts requires an agency to make a determination as to what constitutes a significant impact. There are no established thresholds of significance, statewide or locally, for what constitutes a wasteful, inefficient, and unnecessary consumption of energy for a proposed land use project. For the purpose of this analysis, the amount of electricity estimated to be consumed by the Project is quantified and compared to that consumed by all non-residential land uses in San Diego County. The amount of fuel necessary for Project construction is calculated and compared to that consumed in San Diego County. Similarly, the amount of fuel necessary for Project operations is calculated and compared to that consumed in San Diego County.

The levels of construction and operational related energy consumption estimated to be consumed by the Project include the number of kWh of electricity, and gallons of gasoline. The amount of total construction-related fuel used was estimated using ratios provided in the Climate Registry's General Reporting Protocol for the Voluntary Reporting Program, Version 2.1. Electricity consumption estimates were calculated using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use computer model designed to quantify resources associated with both construction and operations from a variety of land use projects. Operational automotive fuel consumption has been calculated with Emission Factor (EMFAC) 2021. EMFAC 2021 is a mathematical model that was developed to calculate emission rates and rates of gasoline consumption from motor vehicles that operate on highways, freeways, and local roads in California. Energy consumption associated with the Proposed Project is summarized in Table 4.6-4.

Table 4.6-4. Proposed Project Energy and Fuel Consumption		
Energy Type	Annual Energy Consumption	Percentage Increase Countywide
Building Energy Consumption		
Electricity Consumption ¹	2,180 kilowatt-hours	0.00002 percent
Automotive Fuel Consumption		
Project Construction ²	27,783 gallons	0.00179 percent
Project Operations ³	119,306 gallons	0.00770 percent

Source: ¹CalEEMod; ²Climate Registry 2016; ³EMFAC2021 (CARB 2023a). See Appendix D.

Notes: The Project increases in electricity consumption are compared with all of the non-residential buildings in San Diego County in 2022, the latest data available. The Project increases in construction and operations automotive fuel consumption are compared with the countywide fuel consumption in 2023, the most recent full year of data.

Operations of the Proposed Project would include electricity for lighting, space and water heating for the small building on-site. As shown in Table 4.6-4, the annual electricity consumption due to operations would be 2,180 kWh resulting in a negligible increase (0.00002 percent) in the typical annual electricity consumption attributable to all non-residential uses in San Diego County. However, this is potentially a conservative estimate. In September 2018 Governor Jerry Brown Signed EO B-55-18, which established a new statewide goal “to achieve carbon neutrality as soon as possible, and no later than 2045, and achieve and maintain net negative emissions thereafter.” Carbon neutrality refers to achieving net zero carbon dioxide (CO₂) emissions. This can be achieved by reducing or eliminating carbon emissions, balancing carbon emissions with carbon removal, or a combination of the two. This goal is in addition to existing statewide targets for GHG emission reduction. Governor’s Executive Order B-55-18 requires CARB to “work with relevant state agencies to ensure future Scoping Plans identify and recommend measures to achieve the carbon neutrality goal.” For these reasons, the Project would not result in the inefficient, wasteful, or unnecessary consumption of building energy.

Fuel necessary for Project construction would be required for the operation and maintenance of construction equipment and the transportation of materials to the Project Area. The fuel expenditure necessary to construct the physical building and infrastructure would be temporary, lasting only as long as Project construction. As indicated in Table 4.6-4, the Project’s gasoline fuel consumption during the one-time construction period is estimated to be 27,783 gallons. This would increase the annual construction-related fuel use in the county by 0.00179 percent. As such, Project construction would have a nominal effect on local and regional energy supplies. No unusual Project characteristics would necessitate the use of construction equipment that would be less energy efficient than at comparable construction sites in the region or the state. Construction contractors would purchase their own gasoline and diesel fuel from local suppliers and would judiciously use fuel supplies to minimize costs due to waste and subsequently maximize profits. Additionally, construction equipment fleet turnover and increasingly stringent state and federal regulations on engine efficiency combined with state regulations limiting engine idling times and requiring recycling of construction debris, would further reduce the amount of transportation fuel demand during Project construction. For these reasons, it is expected that construction fuel consumption

associated with the Project would not be any more inefficient, wasteful, or unnecessary than other similar development projects of this nature.

The Project is estimated to generate a total of 138 daily heavy-duty truck trips and 42 passenger automobile trips associated with the onsite workers. As a conservative measure, the energy modeling accounts for all vehicle trips as heavy-heavy duty trucks. As indicated in Table 4.6-4, this would result in the consumption of approximately 119,306 gallons of automotive fuel per year, which would increase the annual countywide automotive fuel consumption by 0.0077 percent. This analysis conservatively assumes that all of the automobile trips projected to arrive at the Project during operations would be new to San Diego County. Fuel consumption associated with vehicle trips generated by the Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region. For these reasons, this impact would be less than significant.

Energy consumption associated with the Project would not be considered inefficient, wasteful, or unnecessary in comparison to other similar developments in the region.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

California State Senate Bill (SB) 1389 (Bowen, Chapter 568, Statutes of 2002) requires the CEC to prepare a biennial integrated energy policy report (IEPR) that assesses major energy trends and issues facing California's electricity, natural gas, and transportation fuel sectors and provides policy recommendations to conserve resources; protect the environment; ensure reliable, secure, and diverse energy supplies; enhance the State's economy; and protect public health and safety (Public Resources Code Section 25301a). The IEPR provides policy recommendations to be implemented by energy providers in California. Electricity would be provided to the Project by SDG&E. Approximately 55 percent of SDG&E customers' electricity comes from renewable resources, such as solar and wind. Furthermore, in 2022, SDG&E published an economy-wide greenhouse gas study that informs the options to achieve net zero emissions by 2045. SDG&E has also committed to converting the entire fleet of service vehicles to zero-emissions by 2035. Therefore, SDG&E is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2023 IEPR. Since SDG&E is employing the use of renewable and GHG-free energy sources consistent with the IEPR, the Proposed Project's electricity energy consumption would be consistent with the 2023 IEPR since the Project would purchase electricity from SDG&E. As such, the Proposed Project is consistent with, and would not otherwise interfere with, nor obstruct implementation of the goals presented in the 2023 IEPR.

Furthermore, the Project would be designed in a manner that is consistent with relevant energy conservation plans designed to encourage development that results in the efficient use of energy

resources. The Project will be built to the Energy Efficiency Standards for Residential and Nonresidential Buildings, as specified in Title 24, Part 6, of the California Code of Regulations (CCR) (Title 24). Title 24 was established in 1978 in response to a legislative mandate to reduce California's energy consumption. Title 24 is updated approximately every three years; the 2019 Title 24 updates went into effect on January 1, 2020. The 2022 standards went into effect January 1, 2023. The 2022 Energy Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The 2022 update to the Energy Standards focuses on several key areas to improve the energy efficiency of newly constructed buildings and additions and alterations to existing buildings, encouraging better energy efficiency, strengthening ventilation standards, and more. The 2022 Energy Standards are a major step toward meeting Zero Net Energy. Buildings permitted on or after January 1, 2023, must comply with the 2022 Standards. Compliance with Title 24 is mandatory at the time new building permits are issued by city and county governments. Additionally, in January 2010, the State of California adopted the California Green Building Standards Code (CalGreen) that establishes mandatory green building standards for all buildings in California. The code was subsequently updated in 2013. The code covers five categories: planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and indoor environmental quality.

Additionally, the Project would comply with the City's General Plan Conservation Element Goal CS-7 which aims to lower per capita energy demands due to conservation and reduced dependence on fossil fuels through an increase in the use of alternative and renewable energy sources. Goal CS-7 has numerous policies that directly apply to the Proposed Project. With these building standards and policies in place, the Project would not obstruct any state or local plan for renewable energy or energy efficiency. For these reasons, this impact would be less than significant.

The Project proposes to transload renewable fuels directly from rail cars into trucks for local deliveries. Trucks would be loaded with nonpetroleum-based fuels (*biofuels*) including renewable diesel, ethanol or SAF. The fuel would then be delivered via truck to local retailers. Renewable Diesel and SAF can be produced with new or recycled vegetable oils, animal fats, greases, algae, crop residues or woody biomass. Renewable Diesel and SAF are also designated as "drop-in" biofuels, allowing them to fully replace petroleum-based fuels with zero modification to storage facilities or combustion engine systems. When used in diesel engines, renewable diesel can reduce greenhouse gas emissions by up to 80 percent. Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. Biodiesel is often used as a blend with renewable diesel. Renewable diesel and a blend of renewable diesel and up to 20 percent biodiesel can also be used to replace petroleum diesel with no changes or adverse effects to the engine, also with a reduction in greenhouse gas emissions. Furthermore, with the ability to utilize a wide variety of resources to produce renewable diesel, biodiesel and SAF, these biofuels are considered 100 percent sustainable.

Due to these reasons, the Project would not obstruct any state or local plan for renewable energy or energy efficiency.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.6.3 Mitigation Measures

No significant impacts were identified, however the Project's energy consumption will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.7 Geology and Soils

4.7.1 Environmental Setting

4.7.1.1 Geomorphic Setting

The Coastal Plain region of San Diego County includes most of the western portion of the County, including National City, and consists of primarily of Mesozoic crystalline rocks underlain by marine and non-marine sedimentary rocks. The local geology of the City consists primarily of Holocene and Pleistocene formations, including artificial fill, old paralic deposits, very old paralic deposits, and young alluvial deposits.

The Project Area is located within the coastal plain section of the Peninsular Ranges geomorphic province of southern California and is underlain at depth by Pleistocene-age Old Paralic Deposits (Qop₆). The surface of the Project Area is covered with Young Alluvium (Qya) associated with the Sweetwater River which flows into the bay north of the Project Area. Roughly 9 to 11 feet of undocumented fill was observed directly overlying the young alluvium.

4.7.1.2 Regional Seismicity and Fault Zones

An "active fault," according to California DOC, Division of Mines and Geology, is a fault that has indicated surface displacement within the last 11,000 years. A fault that has not shown geologic evidence of surface displacement in the last 11,000 years is considered "inactive." The California Geological Survey (CGS) does not include the City on its list of cities affected by Alquist-Priolo Earthquake Fault Zones (City of National City 2011c).

There are no active faults that run directly through National City. Sweetwater Fault runs through the far eastern edge of the City and is considered inactive. The faults located near National City include Rose Canyon Fault, La Nación Fault, Coronado Bank, San Diego Trough, and San Clemente Fault. The La Nación Fault Zone is located near National City and Chula Vista and therefore poses the greatest potential earthquake to the City, while Rose Canyon Fault poses the greatest potential threat to San Diego as a region due to its proximity to areas of high population (City of National City 2011c).

4.7.1.3 Soils

According to the U.S. Department of Agriculture Soil Conservation Service's *Soil Survey of San Diego County*, the Project Area is composed of the soil type HuC Huerhuero-Urban land complex (two to nine percent slopes), which has a slight soil erosion rating (City of National City 2011c). A soils analysis search was conducted using the Web Soil Survey data and two soil types occur in the biological survey area, Huerhuero-Urban land complex and Md Made land.

A geotechnical investigation was conducted for the Project to characterize the geotechnical conditions in the Project Area based on the findings of the subsurface explorations, laboratory tests, and engineering analyses (Group Delta 2022). According to the findings, the entire Project Area is underlain at depth by Pleistocene-age Old Paralic Deposits and primarily consist of silty sandstone (SM). The Old Paralic Deposits have a relatively high shear strength and low compressibility. Alluvium was encountered in most of the explorations at depths ranging from about 10 to 20 feet below existing surface grades. The alluvial soils we observed in the borings primarily consisted of clean sands such as poorly-graded sand and well-graded sand (SP, SP-SM, and SW). Lesser amounts of silty sand and sandy silt were also observed. Roughly 9 to 11 feet of undocumented fill was observed directly overlying the young alluvium and consisted of a clayey sand with gravel and sandy lean clay (SC and CL). The deeper fill soils included sandy silt (ML). The fill contained little subangular gravel, as well as some trash and demolition debris including wood, plastic, glass, and metal fragments. Lab tests on samples of the clayey fill indicated low plasticity and a very low to low expansion potential.

4.7.1.4 Paleontological Resources

A paleontological records search was conducted for the Proposed Project to determine if paleontological resources were present in or adjacent to the Project Area and assess the sensitivity of the Project Area for undiscovered paleontological resources. The San Diego Natural History Museum (SDNHM) database results, summary, and recommendations can be found in the assessment in Appendix E. The records search results indicate that the Proposed Project has the potential to impact artificial fill and Quaternary young alluvial flood plain deposits. Artificial fill is mapped as underlying the majority of the Project Area. Because artificial fill has been previously disturbed and may have been imported to a project area, any contained fossil remains have lost their original stratigraphic contextual data and are thus of little scientific value. For these reasons, artificial fill is assigned no paleontological sensitivity. The eastern margin of the Project Area is underlain at the surface by late Pleistocene- to Holocene-age young alluvial flood plain deposits. These deposits are assigned a low paleontological sensitivity based on their relatively young geologic age and lack of recorded fossil collection localities. Additionally, SDNHM does not have any recorded fossil localities that lie within 1 mile of the Project Area.

4.7.2 Geology and Soils (VII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving:				

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

- i) The California Geological Survey does not include the City on its list of cities affected by Alquist Priolo Earthquake Fault Zones, and no indication of Holocene active or potentially active faulting was found during the geotechnical investigation and literature review (Group Delta 2022). No known active faults run through the City or the Project limits. CGS has determined that the active faults around the City do not present a risk of ground rupture in the event of an earthquake. In the absence of any onsite active faults, no impact related to fault-rupture would occur in the Project Area and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Less than Significant Impact.

- ii) The City is located within a seismically active region and earthquakes have the potential to cause ground shaking of significant magnitude (City of National City 2011c). There is potential for strong ground motion due to a seismic event on the nearby Rose Canyon fault zone. All known active faults located within 60 miles of the Project Area are shown in Figure 5A of Report of Geotechnical Investigation (Group Delta 2022; Appendix F). The strong ground shaking hazard may be managed by structural design per the governing edition of the California Building Code (CBC) Structures should be designed in general accordance with the seismic provisions of the CBC Seismic Design Category D to reduce the risk of loss, injury, or death resulting from strong ground-shaking to less than significant.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Less than Significant Impact.

- iii) Liquefaction is a phenomenon where water-saturated granular soil loses shear strength during strong ground shaking produced by earthquakes. The loss of soil strength occurs when cyclic pore water pressure increases below the groundwater surface. Potential hazards due to liquefaction include the loss of bearing strength beneath structures, possibly causing foundation failure and/or significant settlements.

Historically, seismic shaking levels in the San Diego region, including National City, have not been sufficient enough to trigger liquefaction. National City has a low liquefaction risk; however, there are areas in the western and southern portions of the City that have a slight risk of liquefaction due to the presence of hydric soils or soils that are often saturated or characteristic of wetlands. The hydric soils found in National City include CkA Chino silt loam saline, Rm Riverwash, Tf Tidal flats, and TuB Tujunga sand. The Project Area is located at the City's western border and is within the area with the potential for soft soil types that may amplify effects of earthquakes to liquefaction. The soil types in the Project Area are Huerhuero-Urban land complex and Made land.

The granular loose to medium dense alluvial deposits in the Project Area are susceptible to liquefaction due to a strong earthquake on a nearby active fault zone. Liquefaction analyses were conducted and indicated that the total dynamic settlement will typically range from about 0.5 to 1 inch. It is estimated that the post-liquefaction differential settlement of the proposed improvements would be on the order of 0.5 inch in 40 feet (Group Delta 2022).

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

No Impact.

- iv) According to the City's General Plan, the risk of landslides National City is relatively low, since the City is generally level with few areas of steep slopes (City of National City 2011c). The southern portion of the Project Area is relatively flat lying with gentle sheet grades that typically slope down to the northwest. Existing grades in the Project Area are highly irregular and vary from 18 feet above mean sea level (MSL) to about 5 feet MSL (Group Delta 2022). The Project Area is not located adjacent to a hillside area with unstable slopes. Accordingly, there is no potential for landslides and no impact would occur. No mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:		Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b)	Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The soils in National City are at a limited risk of erosion (City of National City 2011c). Implementation of the Proposed Project would require ground-disturbing activities, such as trenching, that could potentially result in soil erosion or loss of topsoil. Construction of the Proposed Project would be required to comply with the Construction General Permit, either through a waiver or through preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP).

Best Management Practices (BMPs) are included as part of the SWPPP prepared for the Proposed Project and would be implemented to manage erosion and the loss of topsoil during construction-related activities (see Hydrology and Water Quality [IX.] Environmental Checklist and Discussion). Soil erosion impacts would be reduced to a less than significant impact, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Strong ground shaking can cause settlement, lateral spreading, or subsidence by allowing sediment particles to become more tightly packed, thereby reducing pore space. Evidence of land subsidence in National City suggests that soils in the City are unlikely to subside in the future since soils in San Diego County are generally granitic and there have been no documented incidents of subsidence in the County or near National City (City of National City 2011c). The potential for a landslide, lateral spreading, liquefaction, or collapse in the Project Area is very low. The Project Area is relatively flat and does not have landslide potential. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Expansive soils generally result from specific clay minerals that have the capacity to shrink or swell in response to changes in moisture content. Soils in the National City area are susceptible to expansion and compaction; however, most soils have low shrink-swell potential (City of National City 2011c). The near surface fill soils observed during the geotechnical investigation primarily consisted of clayey sand and lean clay. These materials typically have a low expansion potential. Some moderately expansive clay may also exist in the Project Area in areas that were not explored (Group Delta 2022). Impacts would be less than significant and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

No septic tanks or alternative wastewater disposals systems are proposed. Additionally, Municipal Code Section 14.06.020 prohibits the installation of septic tanks or other devices for disposal of sewage in the City where there is an available sewer system within 200 feet. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant.

According to the paleontological records search results, the Project Area is underlain by artificial fill and young alluvial flood plain deposits. The majority of the Project Area is artificial fill, which has been previously disturbed. Artificial fill is assigned no paleontological sensitivity. The eastern margin of the Project Area is underlain at the surface by late Pleistocene to Holocene-age young alluvial flood plain deposits. These deposits are assigned a low paleontological sensitivity based on their relatively young age and lack of recorded fossil collection localities.

Given the low or zero paleontological sensitivity of the geologic units underlying the Project Area and the lack of nearby recorded fossil collection localities, construction of the Project is unlikely to result in impacts to paleontological resources. Therefore, impacts would be less than significant and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.7.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.8 Greenhouse Gas Emissions

4.8.1 Environmental Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. More specifically, experts agree that human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. (Intergovernmental Panel on Climate Change [IPCC] 2023).

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Table 4.8-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Table 4.8-1. Summary of Greenhouse Gases	
Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: (1) USEPA 2023a; (2) USEPA 2023b; (3) USEPA 2023c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

In 2023, CARB released the 2023 edition of the California GHG inventory covering calendar year 2021 emissions. In 2021, California emitted 381.3 million gross metric tons of CO₂e including from imported electricity. This inventory is 3.4 percent higher than the State's 2020 inventory, but 5.7 percent lower than 2019 level, which aligns with the global changes, shutdowns, and economic recoveries affected by the COVID-19 pandemic. Additionally, between 2020 and 2021, California's Gross Domestic Product (GDP) increased 7.8 percent while the GHG intensity of California's economy (GHG emissions per unit GDP) decreased 4.1 percent. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for approximately 38.2 percent of total GHG emissions in the state. Transportation emissions have increased 7.4 percent compared to 2020, which is most likely from light duty vehicle emissions that rebounded when COVID-19 shelter-in-place orders were lifted. Emissions from the electricity sector account for 16.4 percent of the inventory, which is an increase of 4.8 percent since 2020, despite the growth of in-state solar and imported renewable energy. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2021, accounting for 19.4 percent, which saw an increase of nearly 1 percent since 2020 (CARB 2023b).

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to GHG emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies "shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project's GHG emissions or rely on a "qualitative analysis or other performance-based standards." (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a "model or methodology" to estimate GHG emissions and has the discretion to select the model or methodology it considers "most appropriate to enable decision makers to intelligently consider the project's incremental contribution to climate change." (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

1. The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
2. Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
3. The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA's requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project's incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a "water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions." Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines § 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The SDAPCD does not identify any numeric GHG significance thresholds. While SDAPCD currently does not have specific screening thresholds for GHG emissions, it does recognize screening thresholds published by the California Air Pollution Control Officers Association (CAPCOA) for determining the need for additional analysis and mitigation for impacts under CEQA. The CAPCOA white paper (CAPCOA 2008) recommends a 900 metric tons of CO₂e per year screening threshold to determine the size of projects that would be likely to have a less than significant cumulative contribution to climate change. The CAPCOA white paper is intended as a resource, not a guidance document and it is not intended to shape the way an air district or lead agency chooses to address GHG emissions in their CEQA review. The CAPCOA threshold is conservative when compared to similar mass emissions thresholds that have been identified in other air districts for CEQA impact determinations. As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Thus, in the absence of any numeric GHG emissions significance thresholds, the Project is also evaluated for consistency with the City's Climate Action (CAP).

In addition to a comparison of Project consistency with the City CAP, Project GHG emissions are compared to the GHG thresholds recommended by the South Coast Air Quality Management District (SCAQMD), the air pollution control officer for the South Coast Air Basin. The SCAQMD threshold of 3,000 metric tons of CO₂e annually is considered appropriate for the purposes of this analysis due to the proximities of the South Coast Air Basin and the SDAB. The 3,000 metric tons of CO₂e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 metric tons of CO₂e per year value is typically used in defining small projects that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. Land use

projects above the 3,000 metric tons of CO₂e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical, and social resources. In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 214, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, *Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World* (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

4.8.2 Greenhouse Gas Emissions (VIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Construction-Related Emissions

Construction-related activities that would generate GHG emissions include on- and off-road equipment traffic. Table 4.8-2 shows the specific construction-generated GHG emissions that would result from Project construction.

Table 4.8-2. Construction Related Greenhouse Gas Emissions	
Description	CO ₂ e Emissions (Metric Tons/Year)
Construction – Year 1	282
Total Construction Emissions	282
<i>Significance Threshold</i>	<i>3,000</i>

Exceed Threshold?	No
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Sources: CalEEMod version 2022.1.1.21. Refer to Appendix A for Model Data Outputs

As shown in Table 4.8-2, Project construction would result in the generation of approximately 282 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease.

Operational Emissions

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 4.8-3 below and include mainline train locomotive emissions.

Table 4.8-3. Operational-Related Greenhouse Gas Emissions	
Description	CO₂e Emissions (Metric Tons/Year)
Mobile	1,038
Area	<1
Energy	1
Water	<1
Waste	<1
Mainline Rail	486
Project Operations Total	1,525
<i>Significance Threshold</i>	<i>3,000</i>
Exceed Threshold?	No

Sources: CalEEMod version 2022.1. Refer to appendix A for Model Data Outputs

Notes: Trip counts and distances were calculated based on the Project's daily throughput, truck tanker capacity, and trip distances provided by US Compliance. In addition, mainline rail emissions were calculated using the BNSF ton-mile per gallon, Project throughput, BNSF engine inventory and CARB Vision Access Database emission factors in grams per gallon diesel.

As shown in Table 4.8-3, operational emissions would total approximately 1,525 metric tons of CO₂e, which would not exceed the numeric bright-line threshold of 3,000 metric tons of CO₂e annually. This significance threshold was developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. The 3,000 metric tons of CO₂e per year value represents less than one percent of future 2050 statewide GHG emissions target. Impacts would be less than significant and no mitigation is required.

Although this impact has been determined to be less than significant, given the Project's construction-generated and operational GHG emissions, addition of a second rail line, and the relation to the previously discussed potentially significant air quality emissions, this topic will be analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less Than Significant With Mitigation Incorporated.

The City of National City prepared a Climate Action Plan (CAP) Update in 2023 to establish new GHG reduction goals and to align with new California regulations and targets to address climate change. The CAP is a strategic planning document that identifies sources of GHG emissions within the City, presents current and future emission estimates, identifies a GHG reduction target for future years, and presents policy provisions to reduce emissions. As part of the CAP Update, the City implemented an emissions target of reducing 2018 baseline conditions 40 percent by 2030 and 80 percent by 2050.

The CAP Update has several required policies and actions that would apply to the Proposed Project's construction and operations. The Proposed Project would need to incorporate all applicable actions to demonstrate consistency with this climate planning document. Several measures have been incorporated into the Project as design features for ensuring that compliance is achieved before the Project is approved. These measures include the provision of two electric vehicle (EV) ready parking spaces on site, signage prohibiting idling in excess of five minutes; all electric building and site facilities, and United States Department of Agriculture Higher Blends Infrastructure Incentive Program (HBIIIP) grant funding approval. Therefore, the following actions have been identified that apply to the Proposed Project:

- TLU-2.1 Encourage all new residential, governmental, and commercial buildings to be electric vehicle ready (i.e. charging stations, preferred parking, etc.).
- TLU-2.6 Encourage the reduction of idling times for commercial vehicles and construction equipment.
- RCB-2.1 Encourage private development projects to exceed the energy efficiency requirements of CalGreen by providing technical assistance, financial assistance and other incentives.
- RCB-2.2 Encourage LEED certification for all new commercial and industrial buildings.
- RE-1.2 Encourage restricting new natural gas lines in buildings.

As noted above, the Proposed Project would need to incorporate all applicable CAP Update actions to demonstrate consistency with the City's climate action planning efforts. The Project proponent has noted that there will be no natural gas used as a part of the Project's operations, consistent with Action RE-1.2. Additionally, the Project is not proposing a new permanent commercial or industrial building. Mitigation Measure GHG-1 ensures compatibility and consistency with the rest of the applicable GHG reduction plans, policies, and regulations.

Furthermore, the GHG reduction strategies in the CAP Update build upon the City's previous CAP and updated emission inventory. Both the existing and the projected GHG inventories in the CAP were derived based on the land use designations defined in the City General Plan. The Proposed Project is consistent with the land use designation and development density presented in the General Plan. The Project is not proposing to amend the City General Plan and is consistent with all land use designations applied to the Site. Since the Project is consistent with the General Plan's land use designation map, it is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the General Plan, and therefore aligns with the land use assumptions used in the CAP Update.

It is further noted that the Project proposes to transload renewable fuels and SAF (non-petroleum-based) directly from rail cars into trucks for local deliveries. Renewable Diesel and SAF can be produced with new or recycled vegetable oils, animal fats, greases, algae, crop residues or woody biomass. Renewable Diesel and SAF are also designated as a *drop-in* biofuel allowing them to fully replace petroleum-based fuels with zero modification to storage facilities or combustion engine systems. When used in diesel engines, renewable diesel can reduce GHG emissions by up to 70 percent compared to traditional diesel fuels when accounting for the complete life cycle of renewable diesel. Biodiesel is a renewable, biodegradable fuel manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. Biodiesel is often used as a blend with renewable diesel. Renewable diesel and a blend of biodiesel reduce GHG emissions compared with traditional diesel fuel and can be used to replace petroleum diesel with no changes or adverse effects to the engine. Project delivery trucks would be loaded with either renewable diesel fuel, ethanol or SAF. The fuel would then be distributed to the greater San Diego area via these truck to local retailers, promoting the goals set out by SB 32 and the latest CARB Scoping Plan (2022), which addresses ways for California to reach carbon neutrality by 2045 and reducing GHG emissions to 40 percent below 1990 levels by 2030. Effort to develop Projects like this one reduce reliance on fossil fuels, reduce and reuse waste streams, and reduces GHG emissions. Additionally, the production and use of biofuels advances the goal of California's Low-Carbon Fuels Standard, another component of the AB 32 Scoping Plan. Furthermore, with the ability to utilize a wide variety of resources to produce renewable diesel, biodiesel and SAS, these biofuels are considered 100 percent sustainable. These characteristics make these fuels environmentally, socially, and in long-term respects, economically preferable to petroleum-based fuels. Given these facts, once the proposed facility is completed, the National City would be considered a *Clean Fuels* hub for the greater San Diego Area.

With implementation of Mitigation Measure GHG-1, Project-related impacts would be reduced to a less than significant level. This topic will be further evaluated in the EIR and any appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.8.3 Mitigation Measures

GHG-1: Adhere to National City's Climate Action Planning Reduction Measures

The Project shall implement the following applicable greenhouse gas-reducing measure, consistent with National City Climate Action Plan Update:

- Ensure the requirements The California Green Building Standards Code—Part 11, Title 24, California Code of Regulations (CalGreen) are met.

Timing/Implementation: *Prior to the issuance of occupancy permits*

Monitoring/Enforcement: *The National City Planning Division*

4.9 Hazards and Hazardous Materials

4.9.1 Environmental Setting

The manufacture, storage, transport, and use of hazardous materials can result in accidents or intentional acts that release toxic chemicals into the environment. Hazardous materials release can cause injuries and death, and can contaminate air, water, and soils (City of National City 2011d).

Facilities that use, manufacture, or store hazardous materials in California must comply with several state and federal regulations. The Superfund Amendments and Reauthorization Act directs businesses that handle, store, or manufacture hazardous materials in specified amounts to develop emergency repose plans and report release of toxic chemicals. It is also illegal for private individuals to dispose of hazardous materials improperly. There are facilities located around San Diego County that provide for the disposal of household hazardous waste materials. The closest residential hazardous material drop-off site for National City is the South Bay Regional Household Hazardous Waste center located at 1800 Maxwell Road in Chula Vista (City of National City 2011d).

As previously identified, DTSC filed a NOE on May 31, 2022 to comply with the CEQA as part of the approval process for the IMW. DTSC determined that the IMW is exempt from CEQA under CCR Title 14, Section 15330 *Minor Actions Taken to Prevent, Minimize, Stabilize, Mitigate, or Eliminate the Release or Threat of Release of Hazardous Waste or Hazardous Substance*. Remediation of the BNSF property under the IMW consists of the removal of metals- and PCB-impacted soils resulting from past metals recycling operations by PSI at the northwestern portion of the site, which is leased from BNSF. Approximately 8,000 cubic yards of contaminated soil will be excavated and disposed of offsite at a permitted landfill (i.e., Copper Mountain Landfill, Arizona). Clean fill will be imported to return the site to level grade. After completion of soil excavation and disposal activities, a land use covenant restricting future land uses to commercial/industrial uses will be recorded with the County Recorder's Office. Site development proposed by this Project will not occur until remediation activities are completed and approved by DTSC.

4.9.2 Hazards and Hazardous Materials (IX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.*Construction Impacts*

Some hazardous materials, such as diesel fuel, would be used in the Project Area during construction. The use of such materials for the construction of the Proposed Project would not create a significant hazard to the public as the release of any construction-related spills would be prevented through the implementation of BMPs listed in the SWPPP.

Operational Impacts

The Proposed Project involves the construction of a transloading facility that will transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks via short above ground manifold. Trucks will be loaded with either renewable diesel fuel or a combination of renewable diesel fuel and up to 20 percent bio-diesel fuel, ethanol, or SAF. The fuel will then be delivered via truck to local retailers within a 35-mile radius. Each truck loading spot will consist of a pump skid, controls, and above ground piping between the belly of the rail cars and the bottom loading port of the truck. Each spot also provides a concrete pad and drain for the containment of potential spills which will be piped to a containment basin onsite. The rail car and truck unloading area will be equipped with a containment system capable of containing the contents of 110 percent of an entire rail car volume. In addition, a Facility Response Plan (FRP) has been developed and will be implemented, to address and/or manage potential spills or emergency events onsite.

The transportation of hazardous materials by rail is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation's Federal Railroad Administration. A second rail line will be added at the existing grade crossing on Civic Center Drive to facilitate rail car movements.

The transport of hazardous materials by truck is regulated by federal safety standards under the jurisdiction of the U.S. Department of Transportation. The facility is expected to receive approximately 69 trucks per day coming in on West 18th Street and exiting the facility on West 19th Street and then on to their retail client deliveries.

The Project's FRP includes the following key components: Protective Actions for Life Safety, Incident Stabilization, Administrative Duties, Other Systems and Components, and Site Plan Countermeasures and Control Plan Components. Protective actions for life safety include, but are not limited to, evacuation, sheltering, and shelter-in-place in the event of life-threatening incidents such as a fire or spill, and facility lockdown in the event of an act of violence.

Stabilizing an emergency may involve many different actions including firefighting, administering medical treatment, rescue, containing a spill of hazardous chemicals or handling a threat or act of violence. Specific preparation activities include but are not limited to staffing trained 40-hour HAZWOPER employees onsite, maintaining sufficient supplies of spill remediation materials onsite, and providing fire extinguishers and other required firefighting apparatus by the terminal permit onsite.

The San Diego Clean Fuels Terminal Manager (or designee) would be the FRP administrator, who will have overall responsibility for adherence to the plan. This responsibility includes the following:

- Maintaining the written Emergency Response Plan for regular and after hours work conditions.
- Notifying the proper rescue and law enforcement authorities, and the building owner/superintendent in the event of an emergency affecting the facility.
- Taking security measures to protect employees.
- Integrating the Emergency Response Plan with any existing plans or requirements.
- Distributing procedures for reporting emergencies, the location of safe exits, and evacuation routes to each employee.
- Conducting drills to acquaint employees with emergency procedures and to judge the effectiveness of the plan.
- Training designated employees in emergency response such as the use of fire extinguishers and the application of first aid.
- Deciding which emergency response to initiate (evacuate or not); Ensuring that equipment is placed and locked in storage rooms or desks for protection.

Additional other systems and procedures and plans included as part of the FRP include an onsite alarm system; Communication Plan; Emergency Shutdown Procedures; First Aid and Rescue Procedures; Training Requirements; Discharge Prevention Procedures; facility site plan; containment systems; security; and regular inspections.

Impacts would be less than significant and no mitigation is required.

Although this impact has been determined to be less than significant, given the Project's transport of hazardous materials and modification of a rail line, this issue will be further analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Project proposes to construct a transloading facility to transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks. Each truck loading spot will consist of a pump skid, controls and above ground piping between the belly of the rail cars and the bottom loading port of the truck. Each spot also provides a concrete pad and drain for the containment of potential spills that will be piped to a containment basin onsite. In addition, an FRP, as described above, will be developed and implemented, to address and/or manage potential spills or emergency events onsite.

Additionally, some hazardous materials, such as diesel fuel, would be used during construction. A SWPPP listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. The release of any construction-related spills would be prevented through the implementation of BMPs listed in the SWPPP. Impacts would be less than significant and no mitigation is required.

Although this impact has been determined to be less than significant, given the Project's transport of hazardous materials and modification of a rail line, this issue will be further analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is located approximately 0.3 mile west of Kimball Elementary. The school is located more than 0.25 mile from an existing or proposed school. No impact would occur and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

A search of the DTSC Hazardous Waste and Substances Site List (Cortese List) and EnviroStor online database, USEPA EnviroMapper, and the State Water Resources Control Board (SWRCB) GeoTracker online database was conducted for the Proposed Project Area (DTSC 2022a and 2022b; USEPA 2022; SWRCB 2022). The searches of USEPA EnviroMapper revealed five clean-up sites located in the vicinity of the Project Area, including:

- Lemon Grove Plating, Inc.
 - Location: 1400 Cleveland Avenue, National City, CA 91950
 - Site Type: Tiered Permit

- Status: Inactive – Needs Evaluation
- Concrete Ship Yards
 - Location: National City, CA
 - Site Type: Military Evaluation
 - Status: Inactive – Needs Evaluation as of 7/20/2017
- Pacific Steel, Inc.
 - Location: 1700 Cleveland Avenue, National City, CA 91950
 - Site Type: Tiered Permit
 - Status: Active
- 1839 Cleveland Avenue
 - Location: 1839 Cleveland Avenue, National City, CA 91950
 - Site Type: Evaluation
 - Status: Refer: 1248 Local Agency as of 5/15/2000
- PCI Photo Lab
 - Location: 1001 West 19th Street, National City, CA 91950
 - Site Type: Tiered Permit
 - Status: Inactive – Needs Evaluation

Additionally, searches of SWRCB GeoTracker revealed three leaking underground storage tank (LUST) Cleanup Sites, two Military Cleanup Sites, and six Cleanup Program Sites, including:

- Naval Base San Diego – IR Site 9 (aka SWMU 2) – PCB Storage
 - Location: 3455 Senn Road, Room 108, San Diego, CA 92136-5084
 - Local Agency Case No.: H01447-015
 - Regional Board Case No: 16599-9
 - Site Type: Military Cleanup Site
 - Status: Completed – Case Closed as of 12/1/1997
- Naval Base San Diego – SWMU 10 – PWC – Machine Storage Area
 - Location: 3455 Senn Road, Room 108, San Diego, CA 92136-5084
 - Local Agency Case No.: 400125--22
 - Regional Board Case No: 16599-SWMU 10
 - Site Type: Military Cleanup Site
 - Status: Completed – Case Closed as of 3/9/1995
- G & S Engineering
 - Location: 1200 Harbor Drive, National City, CA 91950
 - Local Agency Case No.: H39643-001
 - Site Type: LUST Cleanup Site
 - Status: Completed – Case Closed as of 3/15/2012
- Lemon Grove Plating
 - Location: 1400 Cleveland Avenue, National City, CA 91950
 - Local Agency Case No.: H02387-001
 - Site Type: Cleanup Program Site
 - Status: Completed – Case Closed as of 8/1/2013
- HMM Ventures

- Location: 900 Civic Center Drive, National City, CA 91950
 - Local Agency Case No.: DEH2020-LSAM-000639
 - Site Type: Cleanup Program Site
 - Status: Completed – Case Closed as of 9/17/2021
- Tidelands Industrial Park
 - Location: 0 Tidelands Avenue, National City, CA 91950
 - Local Agency Case No.: H39776-001
 - Site Type: Cleanup Program Site
 - Status: Completed – Case Closed as of 8/15/2012
- Tidelands Industrial Park
 - Location: 0 Tidelands Avenue, National City, CA 91950
 - Local Agency Case No.: H39776-002
 - Site Type: LUST Cleanup Site
 - Status: Completed – Case Closed as of 7/16/2012
- Pacific Steel Inc
 - Location: 1700 Cleveland Avenue, National City, CA 91950
 - DTSC Case No.: 71003729
 - Local Agency Case No.: H10744-001
 - Regional Board Case No: 2093200
 - Site Type: Cleanup Program Site
 - Status: Open – Site Assessment as of 3/15/1998
- Pacific Steel Inc
 - Location: 1700 Cleveland Avenue, National City, CA 91950-4215
 - Local Agency Case No.: H10744-003
 - Site Type: Cleanup Program Site
 - Status: Open – Site Assessment as of 2/16/2000
- Cal-Doran Metallurgical SVCS
 - Location: 1804 Cleveland Avenue, National City, CA 91950-5413
 - Local Agency Case No.: H08329-001
 - Regional Board Case No: 9UT3947
 - Site Type: LUST Cleanup Site
 - Status: Completed – Case Closed as of 12/10/2010
- Costco Wholesale Packaging
 - Location: 1001 West 19th Street, National City, CA 91950-5409
 - Local Agency Case No.: H20605-001
 - Site Type: Cleanup Program Site
 - Status: Completed – Case Closed as of 4/7/1987

A majority of the previously described clean-up sites are located in areas adjacent to the Project Area and are not within the Project Area and have been remediated and closed under the direction and oversight of the San Diego RWQCB (Region 9). The only clean-up site located in the Project Area, is the Pacific Steel, Inc. site, located at 1700 Cleveland Avenue. The site status is still open as of the year 2000 and the company still has an active tiered permit, as described above. As part of a separate project, DTSC will

complete the remediation of the area behind 1700 Cleveland Avenue before construction of the transloading facility for this Project begins; therefore, impacts would be less than significant. No mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Although no airports are located within the City's planning area, there are three airports located near National City: San Diego International Airport at Lindbergh Field, Naval Air Station (NAS) North Island located in Coronado, and Brown Field Municipal Airport located south of the planning area in the Otay Mesa community. The Project Area is located approximately 5.2 miles southeast of NAS North Island and is located outside of the designated safety zones and referral zones for the airport (Ricondo & Associates, Inc. 2020). The Proposed Project is not located within an airport land use plan and would not include the construction of habitable structures. As such, the Proposed Project would not result in a safety hazard for people residing or working in the Project area. No impact would occur and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Safety Element of the City of National City notes under Policy S-5.2 to consult with San Diego County, the U.S. Navy, and other appropriate agencies regarding disaster preparedness planning, to establish evacuation routes for all types of emergencies, and to ensure the health and safety of residents during an emergency (City of National City 2011d). Primary evacuation routes for the County of San Diego include major interstates, highways, and prime arterials, such as I-5, which is located to the east of the Project Area (San Diego County 2018). The I-5 N ramp on Civic Center Drive, located approximately 0.4 miles

away from the Project Area can be accessed via Cleveland Avenue. The I-5 S ramp on Bay Marina Drive, located approximately 0.36 miles from the Project Area can be accessed via Cleveland Avenue. Implementation of the Proposed Project would require construction to occur between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks and between Civic Center Drive and West 19th Street. According to Project Area plans, the facility is expected to receive approximately 69 trucks per day coming in on West 18th Street and exiting the facility on West 19th Street and then on to their retail client deliveries. Construction staging will be contained to the Project Area and passage along roadways will be maintained during construction. Impacts to emergency access would be less than significant.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is located in a developed, industrial area of the City of National City; there are no wildlands in the vicinity. Additionally, the Proposed Project is not located on land designated as a state or local fire hazard severity zone (California Department of Forestry and Fire Protection [CAL FIRE] 2022). No impact would occur and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.9.3 Mitigation Measures

No significant impacts were identified, however the Project's transport of hazardous material and FRP will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.10 Hydrology and Water Quality

4.10.1 Environmental Setting

4.10.1.1 Regional Hydrology

The Project Area appears in the San Diego Bay watershed which is a part of the larger San Diego watershed. Groundwater within the City's planning area occurs primarily in two aquifers composed of alluvial deposits, the Lower and Middle Sweetwater Basins, and in the San Diego Formation, an aquifer comprised of consolidated sediment (City of National City 2011e).

4.10.1.2 Site Hydrology and Onsite Drainage

Topography for this site is generally flat, and it has been developed since at least 1904. The southern portion of the Project Area is relatively flat lying with gentle sheet grades that typically slope down to the northwest. The Project Area appears in the San Diego Bay watershed (HUC 12 # 180703041202), which is a part of the larger San Diego watershed (HUC 8 # 18070304). Although the site does not contain any streams or lead directly to any TNW, the site is approximately 550 meters from the Pacific Ocean.

Two brow-ditches functioning as stormwater conveyance systems were identified in the Project Area during the aquatic resources delineation. The features daylight within the Project Area but enter and exit culverts underground.

There are three manufactured drainage culverts that generally serve the purpose of conveying stormwater and urban runoff underneath local roads, the railroad, and surrounding developed areas. These consist mostly of concrete features with metal drainage pipes that range from one to two feet in diameter. They are largely unvegetated and lack a natural bed and bank. These features are likely associated with municipal storm sewer systems.

4.10.2 Hydrology and Water Quality (X) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The City of National City is a co-permittee for San Diego County under San Diego RWQCB Order Number R9-2015-0100, an order amending Order Number R9-2013-0001, NPDES Permit No. CAS010266, as amended by Order Number R9-2015-0001 also known as the Municipal Separate Storm Sewer System or MS4 permit. Water Quality Control Plan for the San Diego Basin (Basin Plan) was developed for water quality management and control for the San Diego Region. Pursuant to the requirements of the NPDES permit, all development projects are required to implement source control BMPs that will minimize the generation of pollutants. Provision E.3.c.(2)(a) of the Basin Plan requires that post-project runoff conditions mimic the predevelopment runoff conditions, and not the pre-project runoff conditions.

The focus of a construction SWPPP is to manage soil disturbance, non-storm water discharges, construction materials, and construction wastes during the construction phase of a Project. Potential water quality impacts associated with the Proposed Project include short-term, construction-related erosion/sedimentation from ground-disturbing activities and construction-related hazardous material discharge. Since the SWPPP is specifically prepared to manage storm water quality and quantity, and prevent discharge of polluted runoff from the site, adherence to mandated SWPPP requirements would ensure potential impacts that could cause a violation of any water quality standards or waste discharge requirements is less than significant. No mitigation would be required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Sweetwater Authority pumps groundwater from the San Diego Formation and the Sweetwater Alluvium, which lie within the Sweetwater Valley groundwater basin. Through its wells in National City, the Authority obtains fresh water from the San Diego Formation. The Authority extracts brackish water from both the alluvium of the Sweetwater River and from the San Diego Formation and treats it at the Reynolds Groundwater Desalination Facility in Chula Vista (City of National City 2011f).

Generally, in the San Diego Region, alluvial aquifers, which can be quickly recharged by stormwater or urban runoff, provide much of the current groundwater production capacity (City of National City 2011e). Due to the highly developed nature of the City, groundwater recharge areas are limited. The largest areas for groundwater recharge in the City are the Sweetwater River, Paradise Creek, Las Palmas Creek, Paradise Marsh, Bannister Marsh, National City Golf Course, Las Palmas Park, Kimball Park, El Toyon Park, Paradise Creek Park, Pepper Park, Sweetwater Heights Park, school playgrounds, recreational fields, and utility easements (City of National City 2011f).

The Proposed Project does not include withdrawal of groundwater and the Project Area is not identified as a groundwater recharge area. No impacts to groundwater supplies or recharge are anticipated and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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 that would:				
i) result in substantial erosion or siltation on- or off-site;	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Less than Significant Impact.

- i) Construction of the Proposed Project would require ground disturbing activities, including excavation, trenching, and paving. These activities have the potential to result in erosion or siltation on- or off-site. Construction impacts would be less than significant with the implementation of standard construction BMPs.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

No Impact.

- ii) The southern portion of the Project Area is relatively flat, with gentle sheet grades that typically slope down to the northwest. Existing surface elevations range from about 18 feet above MSL to about 5 feet MSL. According to the geotechnical investigation, the ground surface should be graded so that water flows rapidly away from the structure and top of slope without ponding. Planters should be built so that water will not seep into the foundation, slab, or pavement areas and if roof drains are used, the drainage should be channeled by pipe to storm drains or discharge at least 10 feet from buildings (Group Delta 2022). There are two brow-ditches and three culverts in the Project Area that function as stormwater conveyance systems. The culverts convey stormwater and urban runoff underneath local roads, the railroad, and surrounding developed areas and are likely associated with municipal storm sewer systems. A SWPPP listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. As such, no changes to the volume of runoff from the Project Area are anticipated as a result of the Proposed Project. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

No Impact.

- iii) The City has implemented the Jurisdictional Runoff Management Plan to improve water quality in the City's creeks, rivers, and oceans through reducing discharges of pollutants to the municipal storm sewer system. The City is subject to a NPDES MS4 Permit by the RWQCB, San Diego Region, which requires the City to reduce pollutants in discharges from its storm drain system to water bodies (City of National City 2020). There are two brow-ditches and three culverts in the Project Area that function as stormwater conveyance systems. The culverts convey stormwater and urban runoff underneath local roads, the railroad, and surrounding developed areas and are likely associated with municipal storm sewer systems. A SWPPP listing BMPs to prevent construction pollutants and products from violating any water quality standard or waste discharge requirements would be prepared for the Proposed Project. The Proposed Project is not anticipated to change the quality and quantity of runoff water in the Project Area. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

No Impact.

- iv) As previously mentioned, drainage will be to the brow-ditches and culverts in the Project Area. Surface grades of the Project Area vary from about 5 to 18 feet above MSL and it is not located within a flood hazard area (Federal Emergency Management Agency [FEMA] 2022). Construction of the transloading facility and associated improvements would not increase the rate or amount of surface runoff in a manner that would substantially increase the risk of flooding, locally impede flow, or transfer flood risk to downstream areas. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is located in close proximity to the San Diego Bay, with surface grades that vary from about 5 to 18 feet above MSL. The relatively close proximity to the bay suggests that the potential may exist for flooding in the event that an earthquake induced tsunami or seiche were to impact the San Diego Bay, however, the existence of the offshore barrier islands and the configuration of the continental shelf in the San Diego vicinity have historically provided relief from tsunamis (Group Delta 2022). The Project Area is not located below any confined bodies of water and is not within a flood hazard area (FEMA 2022). No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

A Water Quality Control Plan for the San Diego Basin (Basin Plan) was developed by the California Regional Water Quality Control Board for water quality management and control for the San Diego Region. The Basin Plan establishes numeric and narrative water quality objectives to protect designated beneficial uses of inland surface waters and coastal waters (National City 2011e). Pursuant to the requirements of the NPDES permit, all development projects are required to implement source control BMPs that will minimize the generation of pollutants.

Potential water quality impacts associated with the Proposed Project include short-term construction-related erosion/sedimentation from ground-disturbing activities and construction-related hazardous material discharge. Impacts associated with construction-related water quality impacts would be avoided or reduced to a level below significance through implementation of standard construction BMPs. No conflict with a water quality control plan or sustainable groundwater management plan would occur. No mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.10.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.11 Land Use and Planning

4.11.1 Environmental Setting

The City is comprised of three main communities, identified by major parks: El Toyon, Kimball, and Las Palmas. These communities are further divided into residential neighborhoods and business districts with distinct identities. Residential areas are organized with elementary schools as the focal point of each neighborhood. Industrial uses in the City (10.2 percent, or 637.2 acres) includes a combination of light and heavy industrial uses, which are concentrated within the western portion of the National City by the harbor front (City of National City 2023). The Proposed Project is located in an urban developed area characterized by industrial land uses. The Project Area includes vacant land and land used for a commercial business.

4.11.2 Land Use and Planning (XI) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project consists of construction of a transloading facility within adjacent property in the BNSF Railway ROW. Due to the nature of the Proposed Project, it would not physically divide an established community and no impact would occur. No mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

The Proposed Project is located within the Medium Manufacturing (MM) and Heavy Manufacturing Zone and has a land use designation of Industrial/Salt Production within the Coastal Zone overlay. Additionally, the Project consists of construction within the BNSF Railway ROW on adjacent private property. The Proposed Project is a conditional use under the Medium/Heavy Manufacturing Zone; therefore, a CUP is required for the Project. Issuance of the CUP would align the Proposed Project with the City's land use regulations and would not constitute a significant environmental impact.

The Project Area is also located in the Coastal Zone of National City and under the Coastal Act of 1976 is subject to the City's LCP. An LCP includes a local government's land use plans, zoning ordinances, zoning district maps, and actions to implement the policies of the Coastal Act. The City's Coastal Zone includes approximately 575 acres and is divided into four districts. Subarea I covers the industrial area west of I-5, Subarea II covers the Paradise Marsh wetlands area, Subarea III covers the Sweetwater industrial area east of I-5 and south of 30th Street, and Subarea IV covers I-5 and the San Diego Trolley ROW. The Project Area is located in Subarea I, which encompasses approximately 210 acres and contains light and medium industrial uses. The Proposed Project would get a CUP to align with the City's land use regulations and the LCP. Additionally, the Project would apply for a Coastal Development Permit.

The City has an adopted Health and Environmental Justice Element which acknowledges the relationship between pollution and negative health effects and identifies policies aimed at reducing adverse health

effects within the community. This element provides guidance to improve living conditions in order to foster the physical health and well-being of City residents.

The Project has the potential to conflict with plans and policies adopted for the purpose of avoiding or mitigating an environmental effect. A consistency analysis with the applicable policies of the City's General Plan and other applicable land use plans and policies will be further analyzed in the EIR.

4.11.3 Mitigation Measures

A potentially significant impact was identified and will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.12 Mineral Resources

4.12.1 Environmental Setting

The State Mining and Geology Board establishes Mineral Resource Zone (MRZ) designations that quantify the mineral resource potential for specific locations across California. According to these designations, the City is located in MRZ-3 zones. The MRZ-3 Mineral Resource Zone is defined as an area where the significance of mineral deposits cannot be determined from the available data (City of National City 2011c).

4.12.2 Mineral Resources (XII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is located in MRZ-3, which is defined as an area where the significance of mineral deposits cannot be determined from the available data. The Proposed Project is located in an urban developed area characterized by industrial land uses. The Project Area includes vacant land and land used for a commercial business. The Project Area is not located on a known important mineral resource recovery site. No impacts are anticipated, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

According to the Comprehensive Land Use Update Draft EIR, the City contains a limited amount of land suitable for the extraction of mineral resources. A southern, noncontiguous area of National City located within the South San Diego Bay Unit of the San Diego National Wildlife Refuge contains salt ponds. The operation, which occurs at the southernmost end of San Diego Bay, has produced salt at this site for more than 130 years. No mining activities currently exist in the Project Area and it is not zoned or available for mining. The Proposed Project is located in an urban developed area characterized by industrial land uses. Therefore, no impact to locally important mineral resources would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.12.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.13 Noise**4.13.1 Environmental Setting****4.13.1.1 Noise Fundamentals**

Noise is generally defined as sound that is loud, disagreeable, or unexpected. The selection of a proper noise descriptor for a specific source is dependent on the spatial and temporal distribution, duration, and fluctuation of the noise. The noise descriptors most often encountered when dealing with traffic, community, and environmental noise include the average hourly noise level (in L_{eq}) and the average daily noise levels/community noise equivalent level (in $L_{dn}/CNEL$). The L_{eq} is a measure of ambient noise, while the L_{dn} and CNEL are measures of community noise. Each is applicable to this analysis and defined as follows:

- **Equivalent Noise Level (L_{eq})** is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.
- **Day-Night Average (L_{dn})** is a 24-hour average L_{eq} with a 10-dBA "weighting" added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the nighttime. The

logarithmic effect of these additions is that a 60 dBA 24-hour L_{eq} would result in a measurement of 66.4 dBA L_{dn} .

- **Community Noise Equivalent Level (CNEL)** is a 24-hour average L_{eq} with a 5-dBA weighting during the hours of 7:00 p.m. to 10:00 p.m. and a 10-dBA weighting added to noise during the hours of 10:00 p.m. to 7:00 a.m. to account for noise sensitivity in the evening and nighttime, respectively.

Noise can be generated by a number of sources, including mobile sources, such as automobiles, trucks and airplanes, and stationary sources, such as construction sites, machinery, and industrial operations.

Sound spreads (propagates) uniformly outward in a spherical pattern, and the sound level decreases (attenuates) at a rate of approximately 6 decibels (dB) for each doubling of distance from a stationary or point source. Sound from a line source, such as a highway, propagates outward in a cylindrical pattern, often referred to as cylindrical spreading. Sound levels attenuate at a rate of approximately 3 dB for each doubling of distance from a line source, such as a roadway, depending on ground surface characteristics (Federal Highway Administration [FHWA] 2011). Soft surfaces, such as soft dirt or grass, can absorb sound, so an excess ground-attenuation value of 1.5 dB per doubling of distance is normally assumed (FHWA 2011).

The manner in which older structures in California were constructed generally provides a reduction of exterior-to-interior noise levels of about 20 to 25 dBA with closed windows (Caltrans 2002). The exterior-to-interior reduction of newer structures is generally 30 dBA or more (Harris Miller Miller & Hanson Inc. 2006).

4.13.1.2 Human Response to Noise

The human response to environmental noise is subjective and varies considerably from individual to individual. Noise in the community has often been cited as a health problem, not in terms of actual physiological damage, such as hearing impairment, but in terms of inhibiting general well-being and contributing to undue stress and annoyance. The health effects of noise in the community arise from interference with human activities, including sleep, speech, recreation, and tasks that demand concentration or coordination. Hearing loss can occur at the highest noise intensity levels.

Noise environments and consequences of human activities are usually well represented by median noise levels during the day or night or over a 24-hour period. Environmental noise levels are generally considered low when the CNEL is below 60 dBA, moderate in the 60- to 70-dBA range, and high, above 70 dBA. Examples of low daytime levels are isolated, natural settings with noise levels as low as 20 dBA and quiet, suburban, residential streets with noise levels around 40 dBA. Noise levels above 45 dBA at night can disrupt sleep. Examples of moderate-level noise environments are urban residential or semi-commercial areas (typically 55 to 60 dBA) and commercial locations (typically 60 dBA). People may consider louder environments adverse, but most will accept the higher levels associated with noisier urban residential or residential-commercial areas (60 to 75 dBA) or dense urban or industrial areas (65 to 80 dBA). Regarding increases in dBA, the following relationships should be noted in understanding this analysis:

- Except in carefully controlled laboratory experiments, a change of 1.0 dBA cannot be perceived by humans.
- Outside of the laboratory, a 3.0-dBA change is considered a just-perceivable difference.
- A change in level of at least 5.0 dBA is required before any noticeable change in community response would be expected. An increase of 5.0 dBA is typically considered substantial.
- A 10.0-dBA change is subjectively heard as an approximate doubling in loudness and would almost certainly cause an adverse change in community response.

4.13.1.3 Noise Sensitive Land Uses

Noise-sensitive land uses are generally considered to include those uses where noise exposure could result in health-related risks to individuals, as well as places where quiet is an essential element of their intended purpose. Residential dwellings are of primary concern because of the potential for increased and prolonged exposure of individuals to both interior and exterior noise levels. Additional land uses such as hospitals, historic sites, cemeteries, and certain recreation areas are considered sensitive to increases in exterior noise levels. Schools, churches, hotels, libraries, and other places where low interior noise levels are essential are also considered noise-sensitive land uses.

The nearest existing noise-sensitive land use to the Project Area are residents located in McKinley Apartments located approximately 380 feet east of the Project Area boundary.

4.13.1.4 Vibration Fundamentals

Ground vibration can be measured several ways to quantify the amplitude of vibration produced, including through peak particle velocity (PPV) or root mean square velocity. These velocity measurements measure maximum particle at one point or the average of the squared amplitude of the signal, respectively.

Vibration impacts on people can be described as the level of annoyance and can vary depending on an individual's sensitivity. Generally, low-level vibrations may cause window rattling but do not pose any threats to the integrity of buildings or structures.

4.13.1.5 Existing Ambient Noise Environment

The most common and significant source of noise in the National City is mobile noise generated by transportation-related sources. Other sources of noise are the various land uses (i.e., residential, industrial, and commercial) that generate stationary-source noise. The Project Area is bound by a remediation area to the north, industrial uses to the east, West 19th Street and industrial uses to the south and the BNSF Railway railroad to the west. The most significant noise in the Project Area is generated by the BNSF railroad.

The American National Standards Institute (ANSI) Standard 12.9-2013/Part 3 "Quantities and Procedures for Description and Measurement of Environmental Sound – Part 3: Short-Term Measurements with an Observer Present" provides a table of approximate background sound levels in CNEL, daytime L_{eq} , and nighttime L_{eq} , based on land use and population density. The ANSI standard estimation divides land uses into six distinct categories. Descriptions of these land use categories, along with the typical daytime and

nighttime levels, are provided in Table 4.13-1. At times, one could reasonably expect the occurrence of periods that are both louder and quieter than the levels listed in the table. ANSI notes, *95 percent prediction interval [confidence interval] is on the order of +/- 10 dB*. The majority of the area surrounding the Project Area consists of industrial land uses and the BNSF Railway railroad. Thus, the Project vicinity would be considered ambient noise Category 1 and generally experiences noise levels of 67 dBA CNEL.

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-Weighted Sound Levels Corresponding to Land Use and Population Density						
Category	Land Use	Description	People per Square Mile	Typical CNEL	Daytime L_{eq}	Nighttime L_{eq}
1	Noisy Commercial & Industrial Areas and Very Noisy Residential Areas	Very heavy traffic conditions, such as in busy, downtown commercial areas; at intersections for mass transportation or for other vehicles, including elevated trains, heavy motor trucks, and other heavy traffic; and at street corners where many motor buses and heavy trucks accelerate.	63,840	67 dBA	66 dBA	58 dBA
2	Moderate Commercial & Industrial Areas and Noisy Residential Areas	Heavy traffic areas with conditions similar to Category 1, but with somewhat less traffic; routes of relatively heavy or fast automobile traffic, but where heavy truck traffic is not extremely dense.	20,000	62 dBA	61 dBA	54 dBA
3	Quiet Commercial, Industrial Areas and Normal Urban & Noisy Suburban Residential Areas	Light traffic conditions where no mass transportation vehicles and relatively few automobiles and trucks pass, and where these vehicles generally travel at moderate speeds; residential areas and commercial streets, and intersections, with little traffic compose this category.	6,384	57 dBA	55 dBA	49 dBA
4	Quiet Urban & Normal Suburban Residential Areas	These areas are similar to Category 3, but for this group, the background is either distant traffic or is unidentifiable; typically, the population density is one-third the density of Category 3.	2,000	52 dBA	50 dBA	44 dBA

Table 4.13-1. ANSI Standard 12.9-2013/Part 3 A-Weighted Sound Levels Corresponding to Land Use and Population Density

5	Quiet Residential Areas	These areas are isolated, far from significant sources of sound, and may be situated in shielded areas, such as a small, wooded valley.	638	47 dBA	45 dBA	39 dBA
6	Very Quiet Sparse Suburban or rural Residential Areas	These areas are similar to Category 4 but are usually in sparse suburban or rural areas; and, for this group, there are few if any nearby sources of sound.	200	42 dBA	40 dBA	34 dBA

Source: ANSI 2013

4.13.2 Noise (XIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Result in generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less Than Significant Impact*Project Onsite Construction Noise*

Construction noise associated with the Proposed Project would be temporary and would vary depending on the nature of the activities being performed. Noise generated would primarily be associated with the operation of off-road equipment for onsite construction activities as well as construction vehicle traffic on area roadways. Construction noise typically occurs intermittently and varies depending on the nature or phase of construction (e.g., land clearing, grading, excavation, building construction, paving). Noise generated by construction equipment, including earth movers, material handlers, and portable generators, can reach high levels. Typical operating cycles for these types of construction equipment may involve one or two minutes of full power operation followed by three to four minutes at lower power settings. Other primary sources of acoustical disturbance would be random incidents, which would last less than one minute (such as dropping large pieces of equipment or the hydraulic movement of machinery lifts). During construction, exterior noise levels could negatively affect sensitive land uses in the vicinity of the construction site.

The City's regulations with respect to construction noise are included in Title 12 of the City's Municipal Code. More specifically, Section 12.10.160 states that construction is prohibited on weekdays between the hours of 7:00 p.m. and 7:00 a.m., or at any time on weekends or holidays. Additionally, mobile construction equipment in Type 1, residential areas, shall not exceed 75 dBA and stationary equipment shall not exceed 60 dBA. As previously described, the Project Area is located in an area surrounded mainly by industrial land uses. The nearest noise-sensitive land use to the Project Area are residents located in McKinley Apartments located approximately 380 feet east of the Project Area boundary. The anticipated short-term construction noise levels generated for the necessary equipment during each phase are summarized in Table 4.13-2.

Table 4.13-2. Construction Average (dBA) Noise Levels at Nearest Receptor – Project Area			
Equipment	Estimated Exterior Construction Noise Level at Nearest Residences	Construction Noise Standards (dBA L_{eq})	Exceeds Standards?
Site Preparation	70.0	75	No
Grading	70.1	75	No
Paving and Painting	69.1	75	No

Source: Construction noise levels were calculated by ECORP using the FHWA Roadway Noise Construction Model (FHWA 2006). Refer to Appendix G for Model Data Outputs.

Notes: It is noted that the building on-site would be a mobile office, and therefore, there would be no building construction.

L_{eq} = The equivalent energy noise level, is the average acoustic energy content of noise for a stated period of time. Thus, the L_{eq} of a time-varying noise and that of a steady noise are the same if they deliver the same acoustic energy to the ear during exposure. For evaluating community impacts, this rating scale does not vary, regardless of whether the noise occurs during the day or the night.

As shown in Table 4.13-2, during construction activities no individual or cumulative pieces of mobile construction equipment would exceed the City's threshold of 75 dBA at the nearest noise-sensitive land use. It is noted that construction noise was modeled on a worst-case basis. It is very unlikely that all pieces of construction equipment would be operating at the same time for the various phases of Project construction as well as at the point closest to the nearest noise-sensitive receptor.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Offsite Construction Worker Traffic Noise

Project construction would result in additional traffic on adjacent roadways over the period that construction occurs. According to the CalEEMod model, which is used to predict the number of worker commute trips, the maximum number of construction workers traveling to and from the Project Area during a single construction phase would not be expected to exceed 18 trips in total.

According to Caltrans' *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, doubling of traffic on a roadway is required to result in an increase of 3 dB (outside of the laboratory, a 3-dBA change is considered a just-perceivable difference) (Caltrans 2013). The Project Area is accessible from West 18th

Street via Cleveland Avenue. According to the City's General Plan Update Background Report, the roadway segment on Cleveland Avenue from Civic Center Drive to West 19th Street, which traverses the Project Area, has an average daily traffic count of 3,600 vehicles. Thus, Project construction would not result in a doubling of traffic, and therefore its contribution to existing traffic noise would not be perceptible. Additionally, it is noted that construction is temporary, and these trips would cease upon completion of the Project.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Operational Onsite Stationary Noise

The Project Area is located in a heavily developed industrial area and is located adjacent to the BNSF Railway railroad which is one of the largest freight railroads in North America. Noise from rail activity along the BNSF mainline currently exists and is part of the existing condition. The Project is proposing to construct a transloading facility within the railroad ROW located between the existing buildings along Cleveland Avenue and the existing railway tracks. Potential stationary noise sources related to long-term operation on the Project Area would include railway activity, internal circulation of heavy-duty trucks and the unloading of the rail cars. The most basic planning strategy to minimize adverse impacts on new land uses due to noise is to avoid designating certain land uses at locations within the community that would negatively affect noise sensitive land uses. As previously described, the Project is proposing a transloading facility on an active rail network within a heavily developed industrial area. The Project is consistent with the types, intensity, and patterns of land use envisioned for the Project Area. The Project proposes replacing one existing rail turnout and installing new receiving and departure track for the facility; however, two or more trains would not be running simultaneously and therefore would not increase the amount of noise at the Project Site when compared to existing conditions. Operation of the Project would not contribute any noise sources beyond what is currently experienced in the Project Area and would not result in a significant noise-related impact associated with onsite sources.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Operational Offsite Traffic Noise

Project operations would also result in additional traffic on adjacent roadways, thereby increasing vehicular noise in the Project vicinity. The Project Area would be accessible from West 18th Street via Cleveland Avenue. According to the City's General Plan Update Background Report, the roadway segment on Cleveland Avenue from Civic Center Drive to West 19th Street, which traverses the Project Area, has an average daily traffic count of 3,600 vehicles. Operational trucking trips were calculated based on the Project's daily throughput and truck tanker capacity. Therefore, the Project would result in a total of 138 daily heavy-duty truck trips and 42 passenger automobile trips associated with the onsite workers. According to the Caltrans *Technical Noise Supplement to the Traffic Noise Analysis Protocol*, doubling of traffic on a roadway would result in an increase of 3 dB (a barely perceptible increase) (Caltrans 2013). The

Project would not result in a doubling of traffic, thus its contribution to existing traffic noise would not be perceptible.

Impacts would be less than significant and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Result in generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less Than Significant Impact

Project Construction

Excessive groundborne vibration impacts result from continuously occurring vibration levels. Increases in groundborne vibration levels attributable to the Project would be primarily associated with short-term, construction-related activities. Construction on the Project Area would have the potential to result in varying degrees of temporary groundborne vibration, depending on the specific construction equipment used and the operations involved. Ground vibration generated by construction equipment spreads through the ground and diminishes in magnitude with increases in distance.

Construction-related ground vibration is normally associated with impact equipment such as pile drivers, jackhammers, and the operation of some heavy-duty construction equipment, such as dozers and trucks. It is noted that pile drivers would not be necessary during Project construction. Vibration decreases rapidly with distance and it is acknowledged that construction activities would occur throughout the Project Area and would not be concentrated at the point closest to sensitive receptors. Groundborne vibration levels associated with construction equipment at 25 feet distant are summarized in Table 4.13-3.

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment	
Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
Large Bulldozer	0.089
Caisson Drilling	0.089
Loaded Trucks	0.076
Hoe Ram	0.089
Jackhammer	0.035
Small Bulldozer/Tractor	0.003
Vibratory Roller	0.210

Table 4.13-3. Representative Vibration Source Levels for Construction Equipment

Equipment Type	Peak Particle Velocity at 25 Feet (inches per second)
-----------------------	--

Source: FTA 2018; Caltrans 2020

The City does not regulate vibrations associated with construction. However, a discussion of construction vibration is included for full disclosure purposes. For comparison purposes, the Caltrans recommended standard of 0.2 inches per second PPV with respect to the prevention of structural damage for older residential buildings is used as a threshold (Caltrans 2020). This is also the level at which vibrations may begin to annoy people in buildings. Consistent with FTA recommendations for calculating vibration generated from construction equipment, construction vibration was measured from the center of the Project Area (FTA 2018). The nearest structure of concern to the construction site is Honor Marine Electronics located approximately 175 feet east of the Project Area center.

Based on the representative vibration levels presented for various construction equipment types in Table 4.13-3 and the construction vibration assessment methodology published by the FTA (2018), it is possible to estimate the potential Project construction vibration levels. The FTA provides the following equation:

$$[PPV_{\text{equip}} = PPV_{\text{ref}} \times (25/D)^{1.5}].$$

Table 4.13-4 presents the expected Project related vibration levels at a distance of 175 feet.

Table 4.13-4. Onsite Construction Vibration Levels at 175 Feet

Receiver PPV Levels (in/sec)¹					Peak Vibration	Threshold	Exceed Threshold
Large Bulldozer, Caisson Drilling & Hoe Ram	Loaded Trucks	Jackhammer	Small Bulldozer	Vibratory Roller			
0.0048	0.0041	0.0018	0.0001	0.0113	0.0113	0.2	No

Notes: ¹Based on the Vibration Source Levels of Construction Equipment included on Table 4.13-3 (FTA 2018).
Distance to the nearest structure of concern is approximately 175 feet measured from Project Area center.

As shown in Table 4.13-4, vibration as a result of onsite construction activities on the Project Area would not exceed 0.2 PPV at the nearest structure. Thus, onsite Project construction would not exceed the recommended threshold.

Project Operations

Project operations would not include the use of any stationary equipment that would result in excessive vibration levels. While the Project would accommodate heavy-duty trucks, these vehicles can only generate groundborne vibration velocity levels of 0.006 PPV at 50 feet under typical circumstances. The

additional rail line would not increase the vibration levels from the existing rail line as no simultaneous train trips would occur. As described above, existing rail noise and associated vibration with rail activity is an existing condition. Two or more trains would not be running simultaneously and therefore would not increase the amount of vibration at the Project Site when compared to existing conditions. Therefore, the Project would result in negligible groundborne vibration impacts during operations.

Impacts would be less than significant and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is located approximately 5.8 miles northwest of the San Diego International Airport. According to the National City General Plan Noise Element the Project Area is located outside of the Airport Noise Impact Area per Figure NN-2. Thus, the Proposed Project would not expose people working in the Project Area to excess airport noise levels. No impact would occur.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.13.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.14 Population and Housing

4.14.1 Environmental Setting

The City of National City is a centrally located community in the San Diego South Bay that is home to an estimated 61,121 residents as of 2019. In a span of five years from 2015 to 2019, National City's population increased by approximately 1.8 percent. The growth in population will drive job growth and housing demand within the San Diego region, adding nearly 500,000 jobs and more than 330,000 housing units by 2050. National City faces the challenges of high regional housing costs, relatively low household incomes, and accommodating its share of the regional housing need given the limited availability of undeveloped, vacant land in a highly developed urban setting (City of National City 2021a).

4.14.2 Population and Housing (XIV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Induce substantial unplanned population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The City's General Plan estimates a growth in the City's population and job growth by 2050. The Proposed Project will employ a total of 21 full-time employees at the facility, with up to 5 employees onsite at any given time. The Project will not induce substantial unplanned growth in the area. No impact would occur and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Displace substantial numbers of people or existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project will construct a transloading facility on the BNSF Railway railroad ROW. The Project is located in a primarily industrial area and will not displace substantial numbers of people or existing housing. Therefore, there is no impact and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.14.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.15 Public Services

4.15.1 Environmental Setting

4.15.1.1 Police Services

The National City Police Department employs 92 police officer and 43 professional staff members. The police station is located at 1200 National City Boulevard, approximately 0.52 mile east of the Project Area (City of National City 2022a).

4.15.1.2 Fire Services

The National City Fire Department serves an area of approximately 9 square miles and 63,000 residents, while also protecting the Lower Sweetwater Fire Protection District, the Port of San Diego, and Navy Base San Diego. The Fire Department is made up of three divisions: Fire Administration, Fire Prevention, and Fire Operations (City of National City 2022b).

The Fire Operations Division oversees 39 full-time sworn personnel who respond to fires, emergency medical calls, rescues, hazardous incidents, and all other emergency and non-emergency calls for service from three fire stations that are staffed 24-hours a day, 7 days a week. The nearest fire station is Fire Operations Station #34, which is located at 343 East 16th Street, approximately 0.75 acre east of the Project Area (City of National City 2022b).

4.15.1.3 Schools

The National School District is comprised of 10 public schools offering grades K through 6 as well as extended programming and summer camps. Sweetwater Union High School District has four campuses in National City, offering instruction primarily in grades 7 through 12. In addition, National City Middle and Granger Junior High offer secondary instruction and National City Adult offers high school equivalency and continuing education (City of National City 2022c).

4.15.1.4 Parks

National City has five public parks under its jurisdiction (City of National City 2022d). There are approximately 119 acres of parkland (excluding the golf course) located within the City limits. There are currently no joint-use agreements in effect between National City and National School District to share school facilities, playfields, or parking spaces (City of National City 2011b). The nearest park, Kimball Park, is located approximately 0.57 acre east of the Project Area.

4.15.1.5 Other Public Facilities

Other public facilities and services provided within the City include library services. Library services are provided by the National City Public Library, located at 1401 National City Boulevard, approximately 0.55 mile east of the Project Area.

4.15.2 Public Services (XV) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:				
Fire Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Police Protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other Public Facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Fire Protection

Less than Significant Impact.

The City of National City may charge an Emergency Response Cost Recovery Fee to recover the reasonable costs of services necessary to protect the public health and safety associated with motor vehicle incidents, hazardous materials spills or discharges, motor vehicle fires, motor vehicle extractions, pipeline or power line incidents, and fire cause and origin investigations. The City shall charge fees for the cost of services that the National City Fire Department provides related to emergency responses, such as hazardous materials spills or discharges. Fees for HAZMAT services range from \$700 for basic response to \$5,900 for advance responses (National City, California, Municipal Code § 4.70). The Project components include truck loading spots that provide a concrete pad and drain for the containment of potential spills which would be piped to a containment basin onsite. The rail car and truck unloading area will be equipped with a containment system capable of containing the contents of 110 percent of an entire rail car volume. In addition, an FRP will be developed and implemented, to address and/or manage potential spills or emergency events onsite. Impacts would be less than significant and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Police Services

Less than Significant Impact.

The Proposed Project would employ a total of 21 employees will work onsite, with a schedule of five people per shift on three 8-hour shifts. The nature of the Proposed Project would not substantially increase permanent population growth nor create substantial additional demand for police services.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Schools

Less than Significant Impact.

The nature of the Proposed Project would not substantially increase permanent population growth or create substantial additional demand for school services. School fees are not applicable to this Project, as they are only required prior to the issuance of building permits for any new dwelling unit in the City (National City, California, Municipal Code § 4.34.140). Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Parks

Less than Significant Impact.

The Proposed Project would employ a total of 12 employees will work onsite, with a schedule of three people per shift on three 8-hour shifts. The Project would not create a substantial increase in employees or new residents that would increase park use to the extent that modifications to existing parks or construction of new park facilities are required. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Other Public Facilities

Less than Significant Impact.

Implementation of the Proposed Project does not include residential development and will not substantially increase the local population. A total of 21 employees will work onsite, with a schedule of five people per shift on three 8-hour shifts. Project implementation would not require construction of new or expansion of existing public facilities, such as the local library. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.15.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.16 Recreation

4.16.1 Environmental Setting

National City has five public parks under its jurisdiction (City of National City 2022d). There are approximately 119 acres of parkland (excluding the golf course) located within the City limits. There are currently no joint-use agreements in effect between National City and National School District to share school facilities, playfields, or parking spaces (City of National City 2011b). The nearest park, Kimball Park, is located approximately 0.57 acre east of the Project Area.

The City also operates and maintains several non-park recreational facilities. Indoor recreational opportunities include after school youth programs, senior activities, and a community center with events for all ages (City of National City 2011b).

4.16.2 Recreation (XVI) Materials Checklist

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Project would employ a total of 21 employees onsite with five people scheduled per shift on three 8-hour shifts. The Proposed Project would not create a substantial increase in new residents that would increase park use to the extent that substantial physical deterioration of the facility would occur. The closest park to the Proposed Project is Paradise Creek Park, located approximately 0.32 mile east. Impacts would be less than significant.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project would construct a transloading facility and would not affect recreational facilities. As such, the Proposed Project would not require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.16.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.17 Transportation

4.17.1 Environmental Setting

The City of National City's dense and compact urban form lends itself well to mixed-use and pedestrian friendly-environment, and the urban core is well-served by multi-modal transportation options including public transit services. The multi-modal circulation network accommodates both local and regional trips and supports public transit, walking, bicycling, and vehicular traffic and parking.

The main regional freeway facilities through the planning area are I-5, I-805, and State Route (SR-54). Both I-5 and I-805 provide north-south movement while SR-54 is an east-west corridor. The City has 15 major arterial roadways providing circulation across the City and to major destination points throughout the region. Additionally, the City is served by 30 collector roadways that operate as local conduits to take users in and out of neighborhoods and business districts onto the arterial routes. These are generally two-lane roads with signalized intersections (City of National City 2021b).

The City of National City is served by a regional transit system operated by the San Diego Metropolitan Transit System (MTS). There are nine bus routes running through the City with a total of over 200 bus stops. Rail lines within the planning area are primarily used to transport lumber, cars, and containers that have entered the country via the Port of San Diego at the National City Marine Terminal. The BNSF Railway and the San Diego and Imperial Valley Railway are the two companies currently operating on the rail lines within the planning area. Two MTS Trolley stations are located within the City, which are located on the Blue Line Trolley running from Old Town and Downtown San Diego to the US-Mexico border. The 8th Street Trolley Station is located near the intersection of 8th Street and Harbor Drive and the 24th Street Trolley Station is located near the intersection of 22nd Street and Wilson Avenue. Transit facilities and routes are not located in close proximity to the Project Area. The trolley line does have an at-grade gate crossing of Civic Center Drive under I-5 between Wilson Avenue and McKinley Avenue.

The City's circulation system supports increased densities and a mix of uses that reduce reliance on personal vehicles by making walking and bicycling more comfortable and convenient. The City has complete "10-minute" neighborhoods, where the time it takes residents to travel for their daily needs through a short walk, bike ride, transit trip, or vehicle drive would generally be 10 minutes or less. By enabling more people to walk, bike, and take transit, the City can make progress towards its climate

action goals and reduce GHG emissions. From 2013 to 2019, the City constructed approximately 12 miles of new bicycle facilities (City of National City 2021b).

4.17.2 *Transportation (XVII) Environmental Checklist and Discussion*

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Construction Impacts

The Proposed Project would generate short-term construction-related vehicle trips. However, traffic generated during construction of the Proposed Project would be temporary and would not conflict with the City's Transportation Element or Circulation Element. The Project would not impede the implementation of City programs supporting walking, bicycling, and use of public transportation. Impacts would be less than significant.

Operational Impacts

Roadway Facilities

The proposed transloading facility will transload bio-diesel fuel, renewable diesel fuel, ethanol, and SAF directly from rail cars into trucks. The trucks will deliver fuel to local retailers within a 35-mile radius. Project access will follow a circulation route involving trucks entering the Project Area on West 18th Street and exiting the Project Area on West 19th Street and on to their retail client deliveries.

KOA's Traffic Impact Study analyzed West 18th Street (Cleveland Avenue west into Project Area), West 19th Street (From Cleveland Avenue to Tidelands Avenue), Cleveland Avenue (from Civic Center Drive to Bay Marina Drive), Tidelands Avenue (from West 19th Street to Civic Center Drive), and Civic Center Drive (from Tidelands Avenue to I-5) (Appendix H). The Project's a.m. and p.m. peak hour trips for each of the eight study intersections do not reach the 50-trip threshold during any hour of operation including the a.m. and p.m. peak period. The traffic impact to intersection operation can be considered to be minimal (KOA 2024).

Transit Facilities

Two MTS Trolley stations are located within the City, which are located on the Blue Line Trolley running from Old Town and Downtown San Diego to the US-Mexico border. The 8th Street Trolley Station is located near the intersection of 8th Street and Harbor Drive and the 24th Street Trolley Station is located near the intersection of 22nd Street and Wilson Avenue. Transit facilities and routes are not located in

close proximity to the Project Area. The trolley line does have an at-grade gate crossing of Civic Center Drive under 1-5 between Wilson Avenue and McKinley Avenue (KOA 2024).

Bicycle Facilities

The Bayshore Bikeway is a 26-mile regional bicycle route that encircles San Diego Bay and passes through the City's planning area along Harbor Drive and Tidelands Avenue. It provides a link to the nearby cities of San Diego, Coronado, Imperial Beach, and Chula Vista. In the vicinity of the Project, the Bikeway is a separated bicycle facility that is located to the outside of the southbound lanes. For the Project, outbound truck traffic will use the northbound lanes on Tidelands Avenue, therefore there will be no conflicting traffic movements between Project-generated truck traffic and bicycles on the Bikeway (KOA 2024).

Pedestrian Facilities

Walkability within the Project Area is provided by sidewalks located along West 18th Street, Cleveland Avenue and Civic Center Drive east of Cleveland Avenue. The Project will not impact the use of sidewalks by pedestrians (KOA 2024).

Although this impact has been determined to be less than significant, given the Project's construction-related and operational vehicle trips and the EIR's further analysis of air quality impacts, transportation impacts will also be further analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

CEQA Guidelines section 15064.3, subdivision (b) details the use of vehicle miles traveled (VMT) to assess the significance of transportation impacts. As detailed in CEQA Guidelines section 15064.3, subdivision (c), a lead agency may elect to be governed by the provisions of this section immediately. As of July 1, 2020, the provisions of this section apply statewide.

A VMT review was conducted for the Project and the Project is presumed to have a less than significant impact on VMT as it meets the small project exemption (KOA 2024).

Although this impact has been determined to be less than significant, given the Project's further discussion of daily trips in the EIR, transportation impacts will also be further analyzed in the EIR.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project would reconfigure one existing rail spur, install new receiving and departure track for the facility, and add truck loading spots to transload clean renewable and bio-fuels (renewable diesel, ethanol, and potentially sustainable aviation fuels at a later date) directly from rail cars into trucks for more efficient delivery to local retailers than the current supply chain. Truck traffic will enter the site from 18th Street and exit on W 19th Street and on to their retail client deliveries. A second rail line will be added at the existing grade crossing on Civic Center Drive to facilitate rail car movements.

The Project does not include any component that would introduce new hazards since the Project does not propose any new roadways. Furthermore, the Project is not proposing a use that could introduce incompatible elements to area roadways. The second rail line would be added to an existing crossing and would not introduce a new rail crossing at Civic Center Drive. No impact would occur.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.*Construction Impacts*

Construction of the Proposed Project would result in temporary construction truck traffic; however, this would not interfere with current emergency access.

Operational Impacts

Truck access will follow a circulation route involving trucks entering the Project Area on West 18th Street from Cleveland Avenue and exiting on West 19th Street and Harrison Avenue. This route would not impede access for emergency services to the Project Area. Impacts would be less than significant.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.17.3 Mitigation Measures

No significant impacts were identified, however potential transportation impacts will be further evaluated in the EIR. Appropriate Project-level mitigation will be identified in the EIR, if necessary.

4.18 Tribal Cultural Resources

4.18.1 Environmental Setting

4.18.2 Ethnography

The Kumeyaay (also known as Ipai and Tipai) are the Yuman-speaking native people of central and southern San Diego County and the northern Baja Peninsula in Mexico. Spanish missionaries and settlers used the collective term *Diegueño* for these people, which referred to people living near the presidio and mission of San Diego de Alcalá. Today, these people refer to themselves as Kumeyaay or as Ipai and Tipai, which are northern and southern subgroups of Kumeyaay language speakers, respectively (Luomala 1978). The ancestral lands of the Kumeyaay extend north from Todos Santos Bay near Ensenada, Mexico to Agua Hedionda Lagoon in north San Diego County, and east to the west side of the Imperial Valley.

The primary source of Kumeyaay subsistence was vegetal food. Seasonal travel followed the ripening of plants from the lowlands to higher elevations of the mountain slopes. Acorns, grass and sage seeds, cactus fruits, wild plums, pinyon nuts, and agave stalks were the principal plant foods. Women sometimes transplanted wild onion and tobacco plants to convenient locations and sowed wild tobacco seeds. Deer, rabbits, small rodents, and birds provided meat. Village locations were selected for seasonal use and were occupied by exogamous, patrilineal clans or bands. Three or four clans might winter together, then disperse into smaller bands during the spring and summer (Luomala 1978).

The Kumeyaay were loosely organized into exogamous patrilineal groups termed sibs, clans, gens, and tribelets by ethnographers. The Kumeyaay term was *cimul*. The *cimul* used certain areas for hunting and gathering, but apparently did not control a bounded and defended territory, as did the *Luiseño* and *Cahuilla*. In addition, members of several different *cimul* usually lived in the same residential base, unlike the *Luiseño*, where a single party or clan controlled a village and its territory. Kumeyaay lived in residential bases during the winter and subsisted on stored resources. No permanent houses were built. Brush shelters were temporary and were not reused the next year. Ceremonies, including rites of passage and ceremonies to ensure an abundance of food, were held in the winter residential bases. The *cimul* leader directed the ceremonies and settled disputes (Christenson 1990). One of the most important ceremonies was the mourning ceremony. Upon death, the Kumeyaay cremated the body of the deceased. Ashes were placed in a ceramic urn and buried or hidden in a cluster of rocks. The family customarily held a mourning ceremony one year after the death of a family member. During this ceremony, the clothes of the deceased individual were burned to ensure that the spirit would not return for his or her possessions (Gifford 1931; Luomala 1978).

The Kumeyaay were geographically and linguistically divided into western and eastern Kumeyaay. The western and eastern Kumeyaay spoke two different dialects (Christenson 1990). The western Kumeyaay

lived along the coast and in the valleys along the drainages west of the mountains. The eastern Kumeyaay lived in the canyons and desert east of the mountains. The western Kumeyaay spent the winter in residential bases in the lowland valleys and then broke into smaller cimul groups that moved gradually eastward toward the mountains, following ripening plants and occupying temporary residential bases along the way. Thus, each group occupied several different residential bases during the course of a year (Christenson 1990). The eastern Kumeyaay spent the winter in villages on the desert margin where water was available from springs at canyon mouths. They moved up the canyons toward the mountains during spring and summer. The eastern and western Kumeyaay met in the mountains in the fall where they gathered black oak acorns, traded, and held ceremonies (Christenson 1990). The large residential bases in the mountains appear archaeologically to be village sites (Gross and Sampson 1990).

The Kumeyaay population was estimated to be between 10,000 and 20,000 at the time of European contact, based on Spanish accounts and ethnographies (Gallegos 2002). Beginning in 1775, the semi-nomadic life of the Kumeyaay began to change as a result of contact with Euro-Americans, particularly from the influence of the Spanish missions. Through successive Spanish, Mexican, and Anglo-American control, the Kumeyaay were forced to adopt a sedentary lifestyle and accept Christianity (Luomala 1978).

4.18.3 Regulatory Setting

4.18.3.1 Assembly Bill 52

Effective July 1, 2015, AB 52 amended CEQA to require that: 1) a lead agency provide notice to those California Native American tribes that requested notice of projects proposed by the lead agency; and 2) for any tribe that responded to the notice within 30 days of receipt with a request for consultation, the lead agency must consult with the tribe. Topics that may be addressed during consultation include tribal TCRs, the potential significance of project impacts, type of environmental document that should be prepared, and possible mitigation measures and project alternatives.

Pursuant to AB 52, Section 21073 of the Public Resources Code defines California Native American tribes as “a Native American tribe located in California that is on the contact list maintained by the NAHC for the purposes of Chapter 905 of the Statutes of 2004.” This includes both federally and non-federally recognized tribes.

Section 21074(a) of the PRC defines TCRs for the purpose of CEQA as:

1. Sites, features, places, cultural landscapes (geographically defined in terms of the size and scope), sacred places, and objects with cultural value to a California Native American tribe that are either of the following:
 - a. included or determined to be eligible for inclusion in the California Register of Historical Resources; and/or
 - b. included in a local register of historical resources as defined in subdivision (k) of Section 5020.1; and/or
 - c. 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 I of Section 5024.1.

In applying the criteria set forth in subdivision(c) of Section 5024.1 for the purposes of this paragraph, the lead agency shall consider the significance of the resource to a California Native American tribe.

Because criteria a and b also meet the definition of a historical resource under CEQA, a TCR may also require additional consideration as a historical resource. TCRs may or may not exhibit archaeological, cultural, or physical indicators.

Recognizing that California tribes are experts in their tribal cultural resources and heritage, AB 52 requires that CEQA lead agencies provide tribes that requested notification an opportunity to consult at the commencement of the CEQA process to identify TCRs. Furthermore, because a significant effect on a TCR is considered a significant impact on the environment under CEQA, consultation is used to develop appropriate avoidance, impact minimization, and mitigation measures.

4.18.3.2 Summary of AB 52 Consultation

The City will send Project notification letters to the following California Native American tribes during the EIR process, which had previously submitted general consultation request letters pursuant to 21080.3.1(d) of the Public Resources Code:

- Barona Group of Capitan Grande
- Sycuan Band of the Kumeyaay Nation
- La Posta Band of Diegueno Mission Indians
- Viejas Band of Kumeyaay Indians
- Manzanita Band of Kumeyaay Nation
- Campo Band of Mission Indians
- San Pasqual Band of Mission Indians
- Jamul Indian Village
- Mesa Grande Band of Mission Indians
- Ewiiapaayp Band of Kumeyaay Indians
- Kwaaymii Laguna Band of Mission Indians
- Lipay Nation of Santa Ysabel

In accordance with CEQA, the AB-52 consultation process was conducted by DTSC for the remediation area at 1700 Cleveland Avenue. DTSC proceeded with the tribal outreach and consultation process, consistent with the Tribal Consultation Policy of 2020. Based on inquiries sent to NAHC, the site is recognized as TRCs. The implementation of the IMW required the presence of a Native American Monitor and/or professional archaeologist, as selected by the tribe, to observe ground disturbing activities. This

assured the identification and protection of any TRCs encountered at the site for the separate remediation project.

4.18.4 Tribal Cultural Resources (XVIII) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:				
i) Listed 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	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ii) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American Tribe.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Less than Significant with Mitigation Incorporated.

i-ii) As previously noted, two cultural resources have been previously identified within the Project Area: P-37-013073, the Coronado Railroad; and P-37-024739, the BNSF (formerly AT&SF) Railway. P-37-013073 was previously evaluated and found not eligible for inclusion on the NRHP or CRHR. P-37-024739 was previously evaluated and found eligible for the NRHP and CRHR. The Proposed Project includes the construction and placement of a mechanical railroad switch (i.e., turnout) to bring rail cars from the railroad mainline to the Project Site along the segment of rail that is associated with the P-37-024739 feature. The installation of the railroad switch mechanism would be added on to the existing railroad and would not result in a significant impact to the segment of railroad associated with the P-37-024739 feature as it would not result in the diminishment in the integrity of the resource.

A search of the Sacred Lands File by the California NAHC was requested on January 28, 2022. The search will determine whether or not the California Native American tribes within the Project Area have recorded

Sacred Lands, because the Sacred Lands File is populated by members of the Native American community with knowledge about the locations of tribal resources. The search of the Sacred Lands File as conducted by the NAHC was negative, indicating the absence of previously recorded Native American resources in the Project Area (ECORP 2022c).

Ground-disturbing activities have the potential to result in the discovery of, or inadvertent damage to, archaeological contexts, and this possibility cannot be eliminated. Consequently, there is a potential for significant impacts to TCRs. The implementation of Mitigation Measure CUL-2 would reduce the potential impacts to less than significant.

Although this impact has been determined to be less than significant, given the Project's change in scope, tribal cultural resources impacts will be further analyzed in the EIR.

4.18.5 Mitigation Measures

CUL-2: Native American Monitoring. A Native American monitor from a tribe that is traditionally and culturally affiliated with the Project Area should be retained to monitor all ground-disturbing activities associated with Project construction, including vegetation removal, clearing, grading, trenching, excavation, or other activities that will disturb original (pre-project) ground. The Native American monitor should have the authority to temporarily pause activity at the location in the event of an unanticipated discovery, so that he or she can coordinate with the Project archaeologist on the identification of a potential cultural resource and the Project archaeologist can direct the procedures in Mitigation Measure CUL-3.

4.19 Utilities and Service Systems

4.19.1 Environmental Setting

4.19.1.1 Water Service

Water service for the City of National City is provided by Sweetwater Authority, which also provides for the City of Chula Vista and portions of the County of San Diego. The Project Area is located in the City of National City division of Sweetwater Authority (Sweetwater Authority 2022). About 70 percent of the water distributed by Sweetwater Authority comes from local supplies, including Sweetwater River Watershed, Sweetwater River, the Sweetwater Alluvium, and San Diego Groundwater Formation. The remainder of the water supply is obtained from imported water sources, purchased from the San Diego County Water Authority (SDCWA). It is transported from the Colorado River or the State Water Project (City of National City 2011f).

4.19.1.2 Wastewater

The City's wastewater division of the City maintains approximately 97 miles of sanitary sewer main, 45 miles of closed storm collection systems, and 4 pump stations to provide sewer service to the area generally within its corporate limits, and receives inflows from the City of San Diego and the U.S. Navy in route to the regional South Metro Interceptor (SMI) (City of National City 2011f; Infrastructure Engineering Corporation [IEC] 2011).

4.19.1.3 Solid Waste

Residential and commercial solid waste collection and recycling services for the City are performed under the contract to residents and businesses by EDCO Disposal (City of National City 2011f).

4.19.2 Utilities and Service Systems (XIX) Environmental Checklist and Discussion

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

The Proposed Project is the construction of a transloading facility to transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks. No new or expanded water or wastewater treatment facilities would be required. Further, the Proposed Project would not impact natural gas, electric power, or telecommunications facilities. The environmental effects from constructing the proposed transloading facility are described in this Initial Study. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

Sweetwater Authority has estimated water supply and demand within its service area, including the City of National City, in its 2020 Draft Urban Water Management Plan (UWMP) and addresses water demand and supply throughout the service area. Local sources have met approximately 45 percent of the water needs within Sweetwater Authority's service area, while 55 percent balance has been met with imported water purchased from the SDCWA. Water supplies available are sufficient to meet all existing customer demands and anticipated future customer demands, including the Project's demands under normal and single-dry years through 2045. However, supply limitations that arise in multiple dry year scenarios must be

addressed through implementation of extraordinary water conservation measures because supplies and demands would be equal and there would be no surplus or deficit. The UWMP also discloses that, in a declared water emergency, the Water Shortage Contingency Plan, will address drought planning, water shortage response levels and actions, and management of water allocations (Sweetwater Authority 2021).

The Proposed Project would construct a transloading facility to transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks and does not include withdrawal of groundwater. The Proposed Project would only require minimal water during construction for compaction and dust control purposes. During operation the Proposed Project would not require water. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

According to the City's 2011 Sewer System Master Plan, the City has average daily capacity rights of at least 7.10 million gallons per day (mgd) in the SMI and the City is currently utilizing 4.25 mgd of their average daily flow capacity in the SMI. The projected average daily wastewater flows with treatment costs allocated to the City are expected to increase 56 percent to 6.57 mgd by 2027. Based on these projections, there is no additional SMI capacity required to accommodate the projected daily wastewater flows. Additionally, the City maintains a System Evaluation and Capacity Assurance Plan to provide estimates of peak flows associated with conditions similar to those causing overflow events, estimates of the capacity of key system components, hydraulic deficiencies, and the major sources that contribute to the peak flows associated with overflow events (City of National City 2009). The Proposed Project will provide a 40-foot mobile office building with restroom facilities for driver use. Project components do not include any connection to the sewer system and no septic tank will be required. A vendor will be utilized to dispose of waste from the restroom facilities. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Less than Significant Impact.

All solid waste in the City is collected by EDCO Waste and Recycling Services. Non-recyclable solid waste is sent to the Otay Landfill, located at 1700 Maxwell Road in Chula Vista, approximately ten miles south of National City and operated by Allied Waste Industries. Recyclable materials are processed by EDCO at one of its three Material Recovery Facilities in Southern California (City of National City 2011f). Otay Landfill has a maximum permit capacity of 61,154,000 tons and a remaining capacity of 21,194,008 tons (CalRecycle 2022a). Minimal waste would be generated by the Proposed Project during construction. Solid waste during operation would come from garbage receptacles in the mobile office building. According to the City of Los Angeles CEQA Thresholds Guide, the typical waste generation rate for a commercial project is 10.53 lb/employee/day. The estimate is prior to recycling, composting, or other waste diversion programs (CalRecycle 2022b). A total of 12 employees will work on the site per day, therefore, total commercial waste generation would be 126.36 lbs/day total. The Proposed Project is not anticipated to generate solid waste in excess of state or local standards. Impacts would be less than significant, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

Would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Waste generated by the Proposed Project would comply with all applicable federal, state, and local statutes and regulations related to solid waste. No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.19.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.20 Wildfire

4.20.1 Environmental Setting

Government Code 51175-89 directs CAL FIRE to identify areas of very high fire hazard severity zones within Local Responsibility Areas. Mapping of the areas, referred to as Very High Fire Hazard Severity Zones (VHFHSZ), is based on data and models of potential fuels over a 30- to 50-year time horizon and their associated expected fire behavior, and expected burn probabilities to quantify the likelihood and nature of vegetation fire exposure to buildings. According to the CAL FIRE Very High Fire Hazard Severity Zone Map, the Project Area is not located within a VHFHSZ (CAL FIRE 2022).

4.20.2 Wildfire (XX) Environmental Checklist and Discussion

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

According to the 2018 San Diego County Emergency Operations Plan, primary evacuation routes consist of the major interstates, highways, and prime arterials within San Diego County. Local jurisdictions will work with the San Diego County Operational Area Emergency Operations Center, San Diego Sheriff's Department, Caltrans, and other applicable agencies/departments to identify evacuation points and transportation routes. I-5, I-805, and SR-54 are primary evacuation routes within National City that identified in the Plan. Arterial roads near the Project Area include Harbor Drive^e, West 8th Street, National City Boulevard, and Bay Marina Drive (San Diego County 2018).

Construction Impacts

Construction of the Proposed Project would result in temporary construction truck traffic; however, this would not interfere with current evacuation routes.

Operational Impacts

Truck access will follow a circulation route involving trucks entering the Project Area on West 18th Street from Cleveland Avenue and exiting on West 19th Street and Harrison Avenue. These streets are not prime arterials identified in the City's General Plan and would not be used as primary evacuation routes.

Because the Project Area is not located in or near a VHFHSZ, no impact would occur (CAL FIRE 2022). No mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to, pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

Topography for the Project Area is generally flat, and it has been developed since at least 1904. The southern portion of the Project Area is relatively flat lying with gentle sheet grades that typically slope down to the northwest. The Proposed Project would not substantially alter the slope, wind patterns, or other factors that could exacerbate wildfire risks. Thus, the Proposed Project would not expose Project occupants to pollutant concentrations from a wildfire or uncontrolled spread of a wildfire. Furthermore, the Project Area is not located in a VHFHSZ (CAL FIRE 2022). No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Proposed Project is located within an urbanized area and would not exacerbate fire risk or impacts to the environment. Furthermore, the Project Area is not located in a VHFHSZ (CAL FIRE 2022). As such, no impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

No Impact.

The Project Area is relatively flat and is not likely to cause downstream flooding or landslides. The Proposed Project would not substantially alter the drainage patterns of the Project Area, and thus would not expose people or structures to significant risks from runoff or post-fire instability. Furthermore, the Project Area is not located in a VHFHSZ (CAL FIRE 2022). No impact would occur, and no mitigation is required.

This topic will not be analyzed further in the EIR unless new information is presented during the scoping process that indicates a potentially significant impact could occur.

4.20.3 Mitigation Measures

No significant impacts were identified, and no mitigation measures are required.

4.21 Mandatory Findings of Significance**4.21.1 Mandatory Findings of Significance (XXI) Environmental Checklist and Discussion**

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
a) 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?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

As discussed throughout this Initial Study, potentially significant impacts were identified for biological resources and cultural resources. The Proposed Project's impacts would be addressed through incorporation of Mitigation Measures **BIO-1** through **BIO-3** and **CUL-1** through **CUL-3**. Impacts related to

cultural resources would be less than significant with implementation of mitigation. Biological Resources will be further evaluated in the EIR. Additionally, given the Project's change in scope, tribal cultural resources impacts will be further analyzed in the EIR.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
b) 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)?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

Cumulative impacts are defined as two or more individual (and potentially less than significant) project effects that, when considered together or in concert with other projects combine to result in a significant impact within an identified geographic area. In order for a project to contribute to cumulative impacts, it must result in some level of impact on a project specific level. The aforementioned potentially significant impacts will be further evaluated in the EIR.

Does the Project:	Potentially Significant Impact	Less than Significant with Mitigation Incorporated	Less than Significant Impact	No Impact
c) Have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Potentially Significant Impact.

The checklist categories of: Air Quality, Greenhouse Gas Emissions, Hazards and Hazardous Materials, Cultural Resources, Geology and Soils, Hydrology and Water Quality, Population and Housing, Tribal Cultural Resources, Noise, Transportation, and Wildfire evaluate Project impacts that may have adverse effects on human beings, either directly or indirectly. Potentially significant impacts were identified for Air Quality, Biological Resources, Greenhouse Gas Emissions, Transportation, and Tribal Cultural Resources. These topics will be further evaluated in the EIR.

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Appendix F – Geotechnical Investigation

Appendix G – Noise Model

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APPENDIX A

Air Quality & Greenhouse Gas Emissions Assessment

Air Quality & Greenhouse Gas Emissions Assessment for the San Diego Clean Fuels Facility, LLC Project

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
AB	Assembly Bill
ASF	Age Sensitivity Factor
ATC	Authority to Construct
BNSF	Burlington Northern and Santa Fe
BR	Breathing Rate
BW	Body Weight
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
CalEEMod	California Emissions Estimator Model
CAP	Climate Action Plan
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Board
CCR	California Code of Regulations
CEQA	California Environmental Quality Act
CERP	Community Emissions Reduction Plan
City	National City
County	San Diego County
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
CO ₂ e	Carbon Dioxide Equivalent
DPM	Diesel Particulate Matter
ED	Exposure Duration

Term	Description
EF	Exposure Frequency
EO	Executive Order
FAH	Fraction of time at home
GDP	Gross Domestic Product
GHG	Greenhouse Gas
GLC	Ground Level Concentration
HARP	Hot Spots Analysis & Reporting Program
HRA	Health Risk Assessment
HVAC	heating, ventilation, and air conditioning system
ICCT	International Council on Clean Transportation
IPCC	Intergovernmental Panel on Climate Change
I-5	Interstate 5
Kg	kilogram
L	Liter
MCAS	Maritime Clean Air Strategy
MEIR	Maximumly Exposed Individual Resident
MEIW	Maximumly Exposed Individual Worker
mg	milligram
NAAQS	National Ambient Air Quality Standards
NO ₂	Nitrogen Dioxide
NO _x	Nitric Oxides
O ₃	Ozone
OEHHA	Office of Environment Health Hazard Assessment
PM	Particulate Matter
PM ₁₀	Coarse Particulate Matter
PM _{2.5}	Fine Particulate Matter
ppm	Parts per Million
RAQS	Regional Air Quality Strategy
REL	Reference Exposure Level
ROG	reactive organic gases
SAF	Sustainable Aviation Fuel
SANDAG	San Diego Association of Governments
SB	Senate Bill
SCAQMD	South Coast Air Quality Management District
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
SoCAB	South Coast Air Basin
TAC	Toxic Air Contaminants
T-BACT	Toxics Best Available Control Technology
USEPA	U.S. Environmental Protection Agency
USGS	U.S. Geological Survey
VOC	Volatile Organic Compounds

1.0 INTRODUCTION

This report documents the results of an Air Quality, Health Risk, and Greenhouse Gas (GHG) Emissions Assessment completed for the San Diego Clean Fuels Facility (Project), which includes infrastructure for the transloading of bio-diesel fuel, renewable diesel fuel and either ethanol or sustainable aviation fuel (SAF) directly from rail cars into trucks on a 6.58-acre site in National City (City). This assessment was prepared using methodologies and assumptions recommended in the rules and regulations of the San Diego Air Pollution Control District (SDAPCD). Regional and local existing conditions are presented, along with pertinent emissions standards and regulations. The purpose of this assessment is to estimate Project-generated criteria air pollutants, health risk and GHG emissions attributable to the Project and to determine the level of impact the Project would have on the environment. Significance levels derived from SDAPCD regulations are utilized to compare modeled Project emissions and determine significance.

1.1 Project Location and Description

The Project Area, located in National City, is an industrial property bound by Civic Center Drive to the north, the existing Burlington Northern and Santa Fe (BNSF) Railway tracks to the west, West 19th Street to the south, and the existing buildings along Cleveland Avenue to the east. The new San Diego Clean Fuels Facility will reconfigure one existing rail spur and add truck loading spots to transload clean renewable and bio-fuels (renewable diesel, biodiesel, ethanol, and potentially sustainable aviation fuels at a later date) directly from rail cars into trucks for more efficient delivery to local retailers than the current supply chain. Each truck loading location will consist of a pump skid, controls, and above ground manifold system. Small amounts of lubricity, conductivity, and regulated volatile organic compounds (VOC) red dye will be added in-line to renewable diesel fuels during the transload process depending on the customer specifications. The rail car unloading and truck loading areas will be equipped with a containment system capable of containing the contents of 110 percent of an entire rail car volume.

Rail cars will be delivered to the facility by BNSF Railway and placed directly on designated receiving tracks. After completing the quality and quantity assurance requirements for the product in each rail car, facility operators will unload the fuel commodities directly from the rail cars into trucks via a short manifold system. Emissions from loading will be managed in compliance with the SDAPCD's Air Permit requirements. Once emptied, the railroad will remove cars and replace them with full ones as needed.

Crews of 4 liquid fuel certified operators will work at the facility 24 hours per day, 7 days per week. Up to 10 operators would be onsite at any given time (shift change). A total of 21 full-time operators with one supervisor per shift and one facility manager will be employed at the facility. An office trailer will be provided onsite and will incorporate the control center for the equipment, restrooms, and an area for driver check-in and receipt of Bills of Lading.

Truck traffic will enter the site from 18th Street and exit on West 19th Street and on to their retail client deliveries. A second rail line will be added at the existing grade crossing on Civic Center Drive to facilitate rail car movements. These trucks trips will replace existing trips of conventional fuels, delivering the benefits of the lower carbon, renewable fuels to the area.

Construction of the Project is anticipated to last approximately six to eight months. Construction activities associated with the Proposed Project would include the addition of new receiving and departure rail spurs and four fixed truck loading spots with required secondary containment infrastructure.

2.0 AIR QUALITY

2.1 Environmental Setting

Air quality in a region is determined by its topography, meteorology, and existing air pollutant sources. These factors are discussed below, along with the current regulatory structure that applies to the San Diego Air Basin (SDAB), which encompasses the Project Area, pursuant to the regulatory authority of the SDAPCD.

Ambient air quality is commonly characterized by climate conditions, the meteorological influences on air quality, and the quantity and type of pollutants released. The air basin is subject to a combination of topographical and climatic factors that reduce the potential for high levels of regional and local air pollutants. The following section describes the pertinent characteristics of the air basin and provides an overview of the physical conditions affecting pollutant dispersion in the Project Area.

2.1.1 San Diego Air Basin

The Project Area is located in National City, which is in San Diego County (County). This region is within the SDAB. The topography in the SDAB varies greatly, from beaches on the west to mountains and desert on the east. Much of the topography in between consists of mesa tops intersected by canyon areas. The region's topography influences air flow and the dispersal and movement of pollutants in the basin. The mountains to the east prevent air flow mixing and prohibit dispersal of pollutants in that direction.

Regional climate and local meteorological conditions influence ambient air quality. The climate of the SDAB is dominated by a semi-permanent high-pressure cell located over the Pacific Ocean. This cell, called the Pacific High-Pressure Cell (or Zone) influences the direction of prevailing winds (westerly to northwesterly) and maintains clear skies for much of the year. The high-pressure cell also creates two types of temperature inversions that may act to degrade local air quality. Subsidence inversions occur during the warmer months as descending air associated with the Zone meets cool marine air. The boundary between the two layers of air creates a temperature inversion that traps pollutants. The other type of inversion, a radiation inversion, develops on winter nights, when air near the ground cools through radiation and the air aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. During mild Santa Ana wind conditions, ambient air quality in the SDAB is affected by air quality in the South Coast Air Basin (the metropolitan areas of Los Angeles, Orange, San Bernardino, and Riverside counties). Air pollutants, specifically the components of smog, are transported to the County during relatively mild Santa Ana weather conditions. Winds blowing toward the southwest transport the polluted air from the South Coast Air Basin over the ocean. The sea breeze brings this air onshore into the County. When the transported smog is at ground level, the highest ozone (O_3) concentrations are measured at coastal and near-coastal monitoring sites. However, when the blown-in smog cloud is elevated, coastal sites may be passed over, and the transported O_3 is measured farther inland.

2.1.2 Criteria Air Pollutants

Criteria air pollutants are defined as those pollutants for which the federal and state governments have established air quality standards for outdoor or ambient concentrations to protect public health with a determined margin of safety. O_3 , coarse particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$) are

generally considered to be regional pollutants because they or their precursors affect air quality on a regional scale. Pollutants such as carbon monoxide (CO), nitrogen oxides (NO_x), and sulfur dioxide (SO₂) are local pollutants because they tend to accumulate in the air locally. PM is also considered a local pollutant in certain scenarios. The health effects commonly associated with criteria air pollutants are summarized below in Table 2-1.

Table 2-1. Summary of Criteria Air Pollutants Sources and Effects		
Pollutant	Major Manufactured Sources	Human Health and Welfare Effects
CO	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.
NO _x	A reddish-brown gas formed during fuel combustion for motor vehicles, energy utilities and industrial sources.	Respiratory irritant; aggravates lung and heart problems. Precursor to ozone and acid rain. Causes brown discoloration of the atmosphere.
O ₃	Formed by a chemical reaction between reactive organic gases (ROG) and nitrous oxides in the presence of sunlight. Common sources of these precursor pollutants include motor vehicle exhaust, industrial emissions, solvents, paints, and landfills.	Irritates and causes inflammation of the mucous membranes and lung airways; causes wheezing, coughing and pain when inhaling deeply; decreases lung capacity; aggravates lung and heart problems. Damages plants; reduces crop yield.
PM _{2.5} & PM ₁₀	Power plants, steel mills, chemical plants, unpaved roads and parking lots, wood-burning stoves and fireplaces, automobiles, and others.	Increased respiratory symptoms, such as irritation of the airways, coughing, or difficulty breathing; aggravated asthma; development of chronic bronchitis; irregular heartbeat; nonfatal heart attacks; and premature death in people with heart or lung disease. Impairs visibility (haze).
SO ₂	An odorless, colorless gas formed when carbon in fuel is not burned completely; a component of motor vehicle exhaust.	Reduces the ability of blood to deliver oxygen to vital tissues, effecting the cardiovascular and nervous system. Impairs vision, causes dizziness, and can lead to unconsciousness or death.

Source: California Air Pollution Control Offices Association (CAPCOA) 2013

2.1.2.1 Carbon Monoxide

CO, in the urban environment, is associated primarily with the incomplete combustion of fossil fuels in motor vehicles. CO combines with hemoglobin in the bloodstream and reduces the amount of oxygen that can be circulated through the body. High CO concentrations can cause headaches, aggravate cardiovascular disease, and impair central nervous system functions. CO concentrations can vary greatly over comparatively short distances. Relatively high concentrations of CO are typically found near crowded intersections and along heavy roadways with slow-moving traffic. Even under the most severe meteorological and traffic conditions, high concentrations of CO are limited to locations within relatively short distances (i.e., up to 600 feet or 185 meters) of the source. Overall CO emissions are decreasing because of the Federal Motor

Vehicle Control Program, which has mandated increasingly lower emission levels for vehicles manufactured since 1973.

2.1.2.2 Nitrogen Oxides

Nitrogen gas comprises about 80 percent of the air and is naturally occurring. At high temperatures and under certain conditions, nitrogen can combine with oxygen to form several different gaseous compounds collectively called nitric oxides (NO_x). Motor vehicle emissions are the main source of NO_x in urban areas. NO_x is very toxic to animals and humans because of its ability to form nitric acid with water in the eyes, lungs, mucus membrane, and skin. In animals, long-term exposure to NO_x increases susceptibility to respiratory infections, and lowering resistance to such diseases as pneumonia and influenza. Laboratory studies show that susceptible humans, such as asthmatics, who are exposed to high concentrations can suffer from lung irritation or possible lung damage. Precursors of NO_x , such as NO and nitrogen dioxide (NO_2), attribute to the formation of O_3 and $\text{PM}_{2.5}$. Epidemiological studies have also shown associations between NO_x concentrations and daily mortality from respiratory and cardiovascular causes and with hospital admissions for respiratory conditions.

2.1.2.3 Ozone

Ozone (O_3) is a secondary pollutant, meaning it is not directly emitted. It is formed when volatile organic compounds (VOC) also known as reactive organic gases (ROG) and NO_x undergo photochemical reactions that occur only in the presence of sunlight. The primary source of ROG emissions is unburned hydrocarbons in motor vehicle and other internal combustion engine exhaust. Sunlight and hot weather cause ground-level O_3 to form. Ground-level O_3 is the primary constituent of smog. Because O_3 formation occurs over extended periods of time, both O_3 and its precursors are transported by wind and high O_3 concentrations can occur in areas away from sources of its constituent pollutants.

People with lung disease, children, older adults, and people who are active can be affected when O_3 levels exceed ambient air quality standards. Numerous scientific studies have linked ground-level O_3 exposure to a variety of problems including lung irritation, difficult breathing, permanent lung damage to those with repeated exposure, and respiratory illnesses.

2.1.2.4 Sulfur Dioxide

SO_2 is a colorless gas with a pungent odor, however sulfur dioxide can react with other particulates in the atmosphere to form particulates that contribute to the haze effect. SO_2 standards have been developed by the U.S. Environmental Protection Agency (USEPA) to regulate all sulfur oxides, however SO_2 is by far the most abundant sulfur oxide in the atmosphere. Currently, SO_2 is primarily a result of the burning of fossil fuels for power generation and other industrial sources. Modern regulations on diesel fuel have greatly reduced the amount of SO_2 in the atmosphere and there are currently no areas in California that have levels of SO_2 that are not acceptable by state or federal standards.

2.1.2.5 Particulate Matter

Particulate matter includes both aerosols and solid particulates of a wide range of sizes and composition. Of concern are those particles smaller than or equal to 10 microns in diameter size (PM_{10}) and smaller than or equal to 2.5 microns in diameter ($PM_{2.5}$). Smaller particulates are of greater concern because they can penetrate deeper into the lungs than larger particles. PM_{10} is generally emitted directly by mechanical processes that crush or grind larger particles or form the resuspension of dust, typically through construction activities and vehicular travel. PM_{10} generally settles out of the atmosphere rapidly and is not readily transported over large distances. $PM_{2.5}$ is directly emitted in combustion exhaust and is formed in atmospheric reactions between various gaseous pollutants, including NO_x , sulfur oxides (SO_x), and VOCs. It can remain suspended in the atmosphere for days and/or weeks and can be transported long distances.

The principal health effects of airborne PM are on the respiratory system. Short-term exposure of high $PM_{2.5}$ and PM_{10} levels are associated with premature mortality and increased hospital admissions and emergency room visits. Long-term exposure is associated with premature mortality and chronic respiratory disease. According to the USEPA, some people are much more sensitive than others to breathing PM_{10} and $PM_{2.5}$. People with influenza, chronic respiratory and cardiovascular diseases, and the elderly may suffer worse illnesses; people with bronchitis can expect aggravated symptoms; and children may experience decline in lung function due to breathing in PM_{10} and $PM_{2.5}$. Other groups considered sensitive include smokers and people who cannot breathe well through their noses. Exercising athletes are also considered sensitive because many breathe through their mouths.

2.1.3 Toxic Air Contaminants

In addition to the criteria pollutants discussed above, toxic air contaminants (TAC) are another group of pollutants of concern. TACs are considered either carcinogenic or noncarcinogenic based on the nature of the health effects associated with exposure to the pollutant. For regulatory purposes, carcinogenic TACs are assumed to have no safe threshold below which health impacts would not occur, and cancer risk is expressed as excess cancer cases per one million exposed individuals. Noncarcinogenic TACs differ in that there is generally assumed to be a safe level of exposure below which no negative health impact is believed to occur. These levels are determined on a pollutant-by-pollutant basis. Carcinogenic TACs can also have noncarcinogenic health hazard levels.

There are many different types of TACs, with varying degrees of toxicity. Sources of TACs include industrial processes such as petroleum refining and chrome plating operations, commercial operations such as gasoline stations and dry cleaners, and motor vehicle exhaust. Additionally, diesel engines emit a complex mixture of air pollutants composed of gaseous and solid material. The solid emissions in diesel exhaust are known as diesel particulate matter (DPM). In 1998, California identified DPM as a TAC based on its potential to cause cancer, premature death, and other health problems (e.g., asthma attacks and other respiratory symptoms). Those most vulnerable are children, whose lungs are still developing, and the elderly, who may have other serious health problems. Overall, diesel engine emissions are responsible for the majority of California's known cancer risk from outdoor air pollutants. Diesel engines also contribute to California's $PM_{2.5}$ air quality problems. Public exposure to TACs can result from emissions from normal operations, as

well as from accidental releases of hazardous materials during upset conditions. The health effects of TACs include cancer, birth defects, neurological damage, and death.

2.1.3.1 Diesel Exhaust

As noted above, the California Air Resources Board (CARB) identified DPM as a TAC. DPM differs from other TACs in that it is not a single substance but rather a complex mixture of hundreds of substances. Diesel exhaust is a complex mixture of particles and gases produced when an engine burns diesel fuel. DPM is a concern because it causes lung cancer; many compounds found in diesel exhaust are carcinogenic. DPM includes the particle-phase constituents in diesel exhaust. The chemical composition and particle sizes of DPM vary between different engine types (i.e., heavy-duty, light-duty), engine operating conditions (i.e., idle, accelerate, decelerate), fuel formulations (i.e., high/low sulfur fuel), and the year of the manufacture of the engine (USEPA 2002). Some short-term (acute) effects of diesel exhaust include eye, nose, throat, and lung irritation, and diesel exhaust can cause coughs, headaches, light-headedness, and nausea. DPM poses the greatest health risk among the TACs; due to their extremely small size, these particles can be inhaled and eventually trapped in the bronchial and alveolar regions of the lung.

2.1.3.2 Ethanol

The storage of ethanol can potentially result in the emission of VOCs, which may pose health risks upon inhalation. The health effects from breathing VOCs emitted during ethanol storage depend on factors such as the concentration of VOCs, duration of exposure, and individual susceptibility. Some possible health effects associated with exposure to VOCs from stored ethanol include respiratory irritation, headaches and dizziness, eye irritation, nausea and vomiting. Chronic exposure to certain VOCs emitted during the storage of ethanol may be associated with long-term health risks, including damage to the liver, kidneys, and the central nervous system. It is important to note that the health risks depend on the specific types and concentrations of VOCs emitted during ethanol storage. Adequate ventilation and proper storage practices can help minimize the release of VOCs.

2.1.4 Ambient Air Quality

Ambient air quality at the Project Area can be inferred from ambient air quality measurements conducted at nearby air quality monitoring stations. CARB maintains more than 60 monitoring stations throughout California. The Sherman Elementary School (450 24th Street, San Diego) air quality monitoring station, located approximately 3.5 miles north of the Project Area, is the closest station to the site and monitors ambient concentrations of O₃ and PM_{2.5}. The Chula Vista (80 East J Street, Chula Vista) monitoring station, located approximately 4 miles southeast of the Project, monitors ambient concentrations of PM₁₀. O₃, PM₁₀ and PM_{2.5} are the pollutant species most potently affecting the Project region. Ambient emission concentrations will vary due to localized variations in emission sources and climate and should be considered *generally* representative of ambient concentrations in the development area. Table 2-2 summarizes the published data concerning O₃, PM₁₀, and PM_{2.5} since 2018 from the Sherman Elementary School and Chula Vista monitoring stations for each year that the monitoring data is provided.

Table 2-2. Summary of Ambient Air Quality Data

Pollutant Scenario	2020	2021	2022
O₃ – Sherman Elementary School			
Max 1-hour concentration (ppm)	0.115	0.076	0.087
Max 8-hour concentration (ppm) (state/federal)	0.088 / 0.087	0.064 / 0.063	0.063 / 0.063
Number of days above 1-hour standard (state)	2	0	0
Number of days above 8-hour standard (state/federal)	3 / 3	0 / 0	0 / 0
PM₁₀ – San Diego Air Basin			
Max 24-hour concentration (µg/m ³) (state/federal)	* / 178.5	* / 122.8	* / 150.9
Annual Average (federal)	50.8	43.0	42.1
Number of days above 24-hour standard (state/federal)	* / 15.0	* / 0.0	* / 0.0
PM_{2.5} – Sherman Elementary School			
Max 24-hour concentration (µg/m ³) (state/federal)	54.4 / 51.9	26.3 / 25.6	20.8 / 20.8
Number of days above federal 24-hour standard	6.1	0.0	0.0

Sources: CARB 2023a

Notes: *Insufficient data available

µg/m³ = micrograms per cubic meter; ppm = parts per million

The USEPA and CARB designate air basins or portions of air basins and counties as being in *attainment* or *nonattainment* for each of the criteria pollutants. Areas that do not meet the standards are classified as nonattainment areas. Acceptable exceedances of the maximum value vary for the National Ambient Air Quality Standards (NAAQS) from fourth highest concentration for the 8-hour O₃ standard to 99th percentile to the SO₂ standard. The NAAQS for O₃, PM₁₀, and PM_{2.5} are based on statistical calculations over one- to three-year periods, depending on the pollutant. The California Ambient Air Quality Standards (CAAQS) are not to be exceeded during a three-year period. The attainment status for the San Diego County portion of the SDAB, which encompasses the Project Area, is included in Table 2-3.

Table 2-3. Attainment Status of Criteria Pollutants in the San Diego Air Basin

Pollutant	State Designation	Federal Designation
O ₃	Nonattainment	Severe Nonattainment
PM ₁₀	Nonattainment	Unclassified/Attainment
PM _{2.5}	Nonattainment	Unclassified/Attainment
CO	Attainment	Unclassified/Attainment
NO ₂	Attainment	Unclassified/Attainment
SO ₂	Attainment	Unclassified/Attainment

Source: CARB 2022a

The determination of whether an area meets the state and federal standards is based on air quality monitoring data. Some areas are unclassified, which means there is insufficient monitoring data for determining attainment or nonattainment. Unclassified areas are typically treated as being in attainment. Because the attainment/nonattainment designation is pollutant-specific, an area may be classified as nonattainment for one pollutant and attainment for another. Similarly, because the state and federal standards differ, an area could be classified as attainment for the federal standards of a pollutant and as nonattainment for the state standards of the same pollutant. The region is designated as a nonattainment area for the federal O₃ standard and is also a nonattainment area for the state standards for O₃, PM₁₀, and PM_{2.5} (CARB 2022a).

2.1.5 Sensitive Receptors

Sensitive receptors are defined as facilities or land uses that include members of the population who are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over 65, children under 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The Project Area is surrounded by a Costco Optical Laboratory directly to the west, and industrial and retail on all other sides. The nearest sensitive receptor is the McKinley Apartments Complex, approximately 380 feet east of the Project. The nearest school is Kimball Elementary School located approximately 0.3 mile (1,580 feet) east of the Project.

2.2 Regulatory Framework

2.2.1 Federal

2.2.1.1 Clean Air Act

The Clean Air Act (CAA) of 1970 and the CAA Amendments of 1971 required the USEPA to establish the NAAQS, with states retaining the option to adopt more stringent standards or to include other specific

pollutants. On April 2, 2007, the Supreme Court found that carbon dioxide (CO₂) is an air pollutant covered by the CAA; however, no NAAQS have been established for CO₂.

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 *sensitive receptors* 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. Healthy adults can tolerate occasional exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed.

The USEPA has classified air basins (or portions thereof) as being in attainment, nonattainment, or unclassified for each criteria air pollutant, based on whether or not the NAAQS have been achieved. If an area is designated unclassified, it is because inadequate air quality data were available as a basis for a nonattainment or attainment designation. Table 2-3 lists the federal attainment status of the San Diego County portion of the SDAB for the criteria pollutants.

2.2.2 State

2.2.2.1 California Clean Air Act

The California Clean Air Act allows the state to adopt ambient air quality standards and other regulations provided that they are at least as stringent as federal standards. CARB, a part of the California Environmental Protection Agency, is responsible for the coordination and administration of both federal and state air pollution control programs within California, including setting the CAAQS. CARB also conducts research, compiles emission inventories, develops suggested control measures, and provides oversight of local programs. CARB establishes emissions standards for motor vehicles sold in California, consumer products (e.g., hairspray, aerosol paints, and barbecue lighter fluid), and various types of commercial equipment. It also sets fuel specifications to further reduce vehicular emissions. CARB also has primary responsibility for the development of California's State Implementation Plan (SIP), for which it works closely with the federal government and the local air districts.

2.2.2.2 California State Implementation Plan

The federal CAA (and its subsequent amendments) requires each state to prepare an air quality control plan referred to as the SIP. The SIP is a living document that is periodically modified to reflect the latest emissions inventories, plans, and rules and regulations of air basins as reported by the agencies with jurisdiction over them. The CAA Amendments dictate that states containing areas violating the NAAQS revise their SIPs to include extra control measures to reduce air pollution. The SIP includes strategies and control measures to attain the NAAQS by deadlines established by the CAA. The USEPA has the responsibility to review all SIPs to determine if they conform to the requirements of the CAA.

State law makes CARB the lead agency for all purposes related to the SIP. Local air districts and other agencies prepare SIP elements and submit them to CARB for review and approval. CARB then forwards SIP revisions to the USEPA for approval and publication in the Federal Register. The SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the clean air plan

for attainment and maintenance of the ambient air quality standards in the SDAB. The County Regional Air Quality Strategy (RAQS) was initially adopted in 1991 and is updated on a triennial basis. The RAQS was updated in 1995, 1998, 2001, 2004, 2009, 2016 and most recently in 2022. The RAQS outlines the SDAPCD's plans and control measures designed to attain the state air quality standards for O₃. The SDAPCD has also developed the SDAB's input to the SIP, which is required under the federal CAA for pollutants that are designated as being in nonattainment of federal air quality standards for the basin.

The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth, to project future emissions and then establish the strategies necessary for the reduction of emissions through regulatory controls. The RAQS and the SIP utilized the *2021 Regional Plan* prepared by the SANDAG to project future growth in the air basin. The SIP relies on the same information from SANDAG to develop emission inventories and emission reduction strategies that are included in the attainment demonstration for the air basin. The plan also includes rules and regulations that have been adopted by the SDAPCD to control emissions from stationary sources. Stationary source control measures are developed by the SDAPCD with the goal of setting limits on the amounts of emissions from various types of sources and/or requiring specific emissions control technologies. In order to implement control measures, a permit system is used to impose controls on new and modified stationary sources and to ensure compliance with regulations by prescribing specific operation conditions or equipment on a source.

The SDAPCD adopted the *2020 Plan for Attaining the National Ozone Standards*, which was voted for approval by the District Board in early October 2020. The plan was submitted to CARB for their approval, and then submittal to the USEPA as a revision to the California SIP for attaining the O₃ standards. The *2020 Plan for Attaining the National Ozone Standards* demonstrates how the region will further reduce air pollutant emissions in order to attain the current NAAQS for O₃ by specified dates. SANDAG was also involved in the preparation of the *2020 Plan for Attaining the National Ozone Standards* through the collection and review of the data necessary to generate comprehensive emission inventories, including socio-economic projections and industrial and travel activities.

2.2.2.3 Tanner Air Toxics Act & Air Toxics "Hot Spot" Information and Assessment Act

CARB's Statewide comprehensive air toxics program was established in 1983 with Assembly Bill (AB) 1807, the Toxic Air Contaminant Identification and Control Act (Tanner Air Toxics Act of 1983). AB 1807 created California's program to reduce exposure to air toxics and sets forth a formal procedure for CARB to designate substances as TACs. Once a TAC is identified, CARB adopts an airborne toxics control measure for sources that emit designated TACs. If there is a safe threshold for a substance at which there is no toxic effect, the control measure must reduce exposure to below that threshold. If there is no safe threshold, the measure must incorporate toxics best available control technology to minimize emissions.

CARB also administers the state's mobile source emissions control program and oversees air quality programs established by state statute, such as AB 2588, the Air Toxics *Hot Spots* Information and Assessment Act of 1987. Under AB 2588, TAC emissions from individual facilities are quantified and prioritized by the air quality management district or air pollution control district. High priority facilities are required to perform a health risk assessment (HRA) and, if specific thresholds are exceeded, required to communicate the results

to the public in the form of notices and public meetings. In September 1992, the *Hot Spots Act* was amended by Senate Bill (SB) 1731, which required facilities that pose a significant health risk to the community to reduce their risk through a risk management plan.

2.2.2.4 In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulations)

In November 2022, CARB approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) aimed at further reducing emissions from the off-road sector. The amendments require fleets to phase-out use of the oldest and highest polluting off-road diesel vehicles in California; prohibit the addition of high-emitting vehicles to a fleet; and require the use of R99 or R100 renewable diesel in off-road diesel vehicles. Off-road vehicles subject to the amended rule are used in construction, mining, industrial operations, and other industries. The amended rule went into effect January 2024.

According to CARB (2022b), the amended rule will reduce harmful air pollutants from over 150,000 in-use off-road diesel vehicles that operate in California and is expected to yield \$5.7 billion in health benefits, prevent more than 570 air-quality related deaths and nearly 200 hospitalizations and emergency room visits from 2023 to 2038. From 2024 through 2038, the current amendments will generate an additional reduction above and beyond the current regulation of approximately 31,087 tons of NO_x and 2,717 tons of PM_{2.5} (CARB 2022b). About half of those additional reductions are expected to be realized within the first five years of implementation (CARB 2022b).

2.2.3 Local

2.2.3.1 San Diego Air Pollution Control District

In addition to the RAQS, the SDAPCD has the primary responsibility for controlling emissions from construction activity throughout the SDAB. In December 2005, the SDAPCD adopted the *Measures to Reduce Particulate Matter* in the SDAB. This document identifies fugitive dust as the major source of directly emitted particulate matter in the SDAB, with mobile sources and residential wood combustion as minor contributors. Data on PM_{2.5} source apportionment indicates that the main contributors to PM_{2.5} in the SDAB are combustion organic carbon, and ammonium sulfate and ammonium nitrate from combustion sources. The main contributors to PM₁₀ include resuspended soil and road dust from unpaved and paved roads, construction and demolition sites, and mineral extraction and processing. Based on the report's evaluation of control measures recommended by CARB to reduce particulate matter emissions, the SDAPCD adopted Rule 55, the Fugitive Dust Rule, in June 2009. The SDAPCD requires that construction activities implement the measures listed in Rule 55 to minimize fugitive dust emissions. Rule 55 requires the following:

1. No person shall engage in construction or demolition activity in a manner that discharges visible dust emissions into the atmosphere beyond the property line for a period or periods aggregating more than 3 minutes in any 60-minute period.
2. Visible roadway dust as a result of active operations, spillage from transport trucks, erosion, or track-out/carry-out shall be minimized by the use of any of the equally effective track-out/carry-out and erosion control measures listed in Rule 55 that apply to the project or operation. These measures include track-out grates or gravel beds at each egress point; wheel-washing at each egress during

muddy conditions; soil binders, chemical soil stabilizers, geotextiles, mulching, or seeding; watering for dust control; and using secured tarps or cargo covering, watering, or treating of transported material for outbound transport trucks. Erosion control measures must be removed at the conclusion of each workday when active operations cease, or every 24 hours for continuous operations.

There are other SDAPCD rules and regulations, not detailed here, which may apply to the Proposed Project, but are administrative or descriptive in nature. These include rules associated with fees, enforcement and penalty actions, and variance procedures. The following additional rules and regulations would apply to the construction of the Project:

- Rule 20 *New Source Review*: SDAPCD Rule 20 requires that any new or modified source of air emissions in the SDAB obtain an Authority to Construct (ATC) from the SDAPCD prior to construction of the project. Specifically Rule 20.2 applies to this project as it will be likely be considered a Non-Major Stationary Source. An Air Quality Impact Analysis must be conducted and excepted by the SDAPCD if the project stationary source emissions are over those presented in Table 20.2 – 1 found in SDAPCD Rule 20.2.
- Rule 50 *Visible Emissions*: Establishes limits to the opacity of emissions within the SDAPCD.
- Rule 51 *Nuisance*: Prohibits emissions that cause injury, detriment, nuisance, or annoyance to any considerable number of persons or to the public; or which endanger the comfort, repose, health, or safety of any such persons or the public; or which cause injury or damage to business or property.
- Rule 52 *Particulate Matter*: Establishes limits to the discharge of any particulate matter from non-stationary sources.
- Rule 54 *Dust and Fumes*: Establishes limits to the amount of dust or fume discharged into the atmosphere in any single hour.
- Rule 67.0.1 *Architectural Coatings*: Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories.
- Rule 67.7 *Cutback and Emulsified Asphalts*: Prohibits the sale and use of cutback and emulsified asphalt materials for the paving, construction or maintenance of parking lots, driveways, streets, and highways which exceed the County standards for the percent by volume of VOC that evaporate into the atmosphere under temperate conditions.

2.2.3.2 AB 617 Portside Community

AB 617 was established to reduce exposure to pollution in communities with high emission source densities. The Project is located in the Portside Community identified as a community with a high amount of emission sources. The *Maritime Clean Air Strategy* and *Community Emissions Reduction Plan* discussed below were developed through AB 617 programs to assist the community in reducing exposure to harmful emissions.

2.2.3.3 Maritime Clean Air Strategy

The Board of Port Commissioners adopted the Maritime Clean Air Strategy (MCAS) as a strategic planning document on October 12, 2021. The goals and objectives of the MCAS are aspirational, non-binding, and will be pursued through a variety of means. The MCAS vision statement is health equity for all. Per the document, the MCAS vision will be attained through strategic partnerships and various strategies determined by available technology. The majority of the strategies in the MCAS are focused on Port activities, however the general goals apply to all facilities in the Port district.

2.2.3.4 Community Emissions Reduction Plan

The Portside Community Emissions Reduction Plan (CERP) was adopted by both SDAPCD and CARB in 2021. The CERP aims to reduce the Portside community's exposure to emissions and promote health and environmental justice for the Portside community. The CERP is designed to guide the community and businesses to achieve emissions beyond regulatory standards, establishing various strategies to reduce criteria air pollutants emissions from various activities. The goals of the CERP are to be adjusted over time, as technology permits.

2.3 Air Quality Emissions Impact Assessment

2.3.1 Threshold of Significance

2.3.1.1 Criteria Air Pollutants

The impact analysis provided below is based on the following California Environmental Quality Act (CEQA) Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to air quality if it would do any of the following:

- 1) Conflict with or obstruct implementation of any applicable air quality plan.
- 2) Result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors).
- 3) Expose sensitive receptors to substantial pollutant concentrations.
- 4) Result in other emissions (such as those leading to odors adversely affecting a substantial number of people).

The significance criteria established by the applicable air quality management or air pollution control district (SDAPCD) may be relied upon to make the above determinations. According to the SDAPCD, an air quality impact is considered significant if the Proposed Project would violate any ambient air quality standard, contribute substantially to an existing or projected air quality violation, or expose sensitive receptors to substantial pollutant concentrations. The SDAPCD recommends the usage of San Diego County thresholds of significance (San Diego County 2007) for air quality for construction and operational activities of land use development projects, such as that proposed, as shown in Table 2-4.

Table 2-4. SDAPCD Significance Thresholds – Pounds per Day		
Air Pollutant	Construction Activities	Operations
Reactive Organic Gas	75	75
Carbon Monoxide	550	550
Nitrogen Oxide	250	250
Sulfur Oxide	250	250
Coarse Particulate Matter	100	100
Fine Particulate Matter	55	55

By its very nature, air pollution is largely a cumulative impact. No single project is sufficient in size, by itself, to result in nonattainment of ambient air quality standards. Instead, a project's individual emissions contribute to existing cumulatively significant adverse air quality impacts. If a project's individual emissions exceed its identified significance thresholds, the project would be cumulatively considerable. Projects that do not exceed significance thresholds would not be considered cumulative considerable.

2.3.1.2 Health Risk Assessment

In addition to the emission of criteria air pollutants, this Projects evaluates the health risk from construction and operations of the Proposed Project. Specifically, the potential exposure of nearby existing residents to DPM primarily from heavy duty trucks. The SDAPCD's states that potential Project health risks should be evaluated according to the *Office of Environment Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments* (2015).

In addition to the OEHHA Guidelines, the SDAPCD has published Supplemental Guidelines (2022) for how dispersion modeling and risk assessments should be conducted for projects within San Diego County. According to the SDAPCD's *Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments* (2022), cancer, non-cancer chronic and acute, and cancer burden isopleths (contours) are required if offsite cancer risks are equal to or exceed 10 in a million, the non-cancer health hazard index are equal to or exceed 1.0, or the cancer burden equals to or exceeds 1.0. In summary, the SDAPCD thresholds for what constitute an exposure of substantial air toxics from mobile source are as follows.

- **Cancer Risk:** Emit carcinogenic or toxic contaminants that exceed the maximum individual cancer risk of 10 in one million.
- **Non-Cancer Risk:** Emit toxic contaminants that exceed the maximum hazard quotient of 1 in one million.

Cancer risk is expressed in terms of expected incremental incidence per million population. The SDAPCD has established an incidence rate of 10 persons per million as the maximum acceptable incremental cancer risk due to TAC exposure from mobile sources. This threshold serves to determine whether a given project has a potentially significant development-specific and cumulative impact. The 10-in-one-million standard

is a very health-protective significance threshold. A risk level of 10 in one million implies a likelihood that up to 10 persons out of one million equally exposed people would contract cancer if exposed continuously (24 hours per day) to the levels of TACs over a specified duration of time. This risk would be an excess cancer that is in addition to any cancer risk borne by a person not exposed to these air toxics.

It is noted that SDAPCD Rule 1200 establishes a cancer risk threshold of 1 person per million incident rate for stationary sources of TACs that do not apply Toxics Best Available Control Technology (T-BACT) and a cancer risk threshold of 10 persons per million incidence rate for stationary sources of TACs that do apply T-BACT. It is noted that the Project TACs are primarily generated by mobile sources of emissions and therefore SDAPCD Rule 1200 does not directly apply to these sources. Furthermore, while fuel transfer activities from trains to trucks would occur in the Project Area, this activity would include T-BACT in the form of couplers that connect tanker trucks, spill containment drain valves, overfill prevention devices, and vent pressure/vacuum valves. Thus, consistent with SDAPCD Rule 1200 and San Diego County thresholds of significance (2007), the cancer risk threshold of 10 persons per million incidence rate is employed.

The SDAPCD has also established non-carcinogenic risk parameters for use in HRAs. Noncarcinogenic risks are quantified by calculating a *hazard index*, expressed as the ratio between the ambient pollutant concentration and its toxicity or Reference Exposure Level (REL). An REL is a concentration at, or below which health effects are not likely to occur. A hazard index less of than one (1.0) means that adverse health effects are not expected. Within this analysis, non-carcinogenic exposures of less than 1.0 are considered less than significant.

2.3.2 Methodology

2.3.2.1 Criteria Air Pollutants

Air quality impacts were assessed in accordance with methodologies recommended by the SDAPCD. Where criteria air pollutant quantification was required, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1. CalEEMod is a statewide land use emissions computer model designed to quantify potential criteria pollutant emissions associated with both construction and operations from a variety of land use projects. Project construction-generated air pollutant emissions were calculated using CalEEMod model defaults for San Diego County and information provided by the Project proponent, such as the site acreage. Operational air pollutant emissions were calculated based on specific Project Area plans, the Project's daily throughput, truck tanker capacity, and trip distances provided by US Compliance, a consultant firms specializing in environment, health, and safety compliance. In addition, the fleet mix was adjusted to reflect 69 heavy-duty trucks making both an inbound trip and outbound trip daily for a total of 138 daily heavy-duty truck trips and 42 passenger automobile trips associated with the onsite workers. In addition, mainline rail emissions were calculated with BNSF references (see Attachment A), and operational emissions were calculated with CARB Vision Access Database emission factors. In addition to operational emissions calculated using CalEEMod, health conservative VOC/ROG emissions were calculated by the US Compliance for the fuel transfer process and included in the summary tables (see Attachment B).

2.3.2.2 Health Risk Assessment

Additionally, offsite DPM concentrations resulting from onsite and offsite Project trucking operations within 1,000 feet of the Project were modeled. DPM Emissions were calculated using the CalEEMod program when possible and supplemental calculations prepared by ECORP Consulting, Inc., as presented in the Health Risk Assessment Output Files (Attachment B). Mainline rail DPM emissions were calculated with BNSF references (see Attachment B). Emissions were also quantified for onsite and offsite heavy duty truck traffic and switching engine operations.

AERMOD version 21112 with a unitized emission rate was used to determine the source receptor relationship for the onsite and offsite sources of DPM associated with both Project construction and operations. AERMOD is a steady-state plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of both surface and elevated sources, and both simple and complex terrain. Hot Spots Analysis & Reporting Program (HARP2, CAPCOA 2022) implements the latest regulatory guidance to develop inputs to the USEPA AERMOD dispersion model for dispersion and as the inputs for calculations for the various health risk levels. The resultant concentration values at vicinity sensitive receptors were then used to calculate chronic and carcinogenic health risk using the standardized equations contained in the *Office of Environment Health Hazard Assessment (OEHHA) Guidance Manual for Preparation of Health Risk Assessments* (2015).

2.3.3 Impact Analysis

2.3.3.1 Project Construction-Generated Criteria Air Quality Emissions

Emissions associated with Project construction would be temporary and short-term but have the potential to represent a significant air quality impact. Three basic sources of short-term emissions will be generated through construction of the Proposed Project: operation of the construction vehicles (i.e., tractors, forklifts, pavers), the creation of fugitive dust during clearing and grading, and the use of asphalt or other oil-based substances during paving activities. Construction activities such as excavation and grading operations, construction vehicle traffic, and wind blowing over exposed soils would generate exhaust emissions and fugitive PM emissions that affect local air quality at various times during construction. Effects would be variable depending on the weather, soil conditions, the amount of activity taking place, and the nature of dust control efforts.

Construction-generated emissions associated with the Proposed Project were calculated using the CARB-approved CalEEMod computer program, which is designed to model emissions for land use development projects, based on typical construction requirements. Attachment A provides more information regarding the construction assumptions, including construction equipment and duration, used in this analysis.

Predicted maximum daily construction-generated emissions for the Proposed Project are summarized in Table 2-5. Construction-generated emissions are short-term and of temporary duration, lasting only if construction activities occur, but would be considered a significant air quality impact if the volume of pollutants generated exceeds the derived thresholds of significance.

Table 2-5. Construction-Related Criteria Air Pollutant Emissions

Construction Year	Pollutant (maximum pounds per day)					
	ROG	NO _x	CO	SO ₂	PM ₁₀	PM _{2.5}
Construction First Year	3.72	36.00	33.80	0.05	21.40	11.60
<i>SDAPCD Potentially Significant Impact Threshold</i>	<i>75</i>	<i>250</i>	<i>550</i>	<i>250</i>	<i>100</i>	<i>55</i>
Exceed SDAPCD Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs.

Notes: Construction emissions taken from the season (summer or winter) with the highest output.

As shown in Table 2-5, emissions generated during Project construction would not exceed the SDAPCD's thresholds of significance. Therefore, criteria pollutant emissions generated during Project construction would not result in a cumulatively considerable net increase of any criteria pollutant for which the Project region is nonattainment under an applicable federal or state ambient air quality standard.

2.3.3.2 Project Operations Criteria Air Quality Emissions

Implementation of the Project would result in long-term operational emissions of criteria air pollutants such as PM₁₀, PM_{2.5}, CO, and SO₂ as well as O₃ precursors such as ROG and NO_x. Predicted maximum daily operational-generated emissions of criteria air pollutants for the Proposed Project are summarized in Table 2-6 and compared to the operational significance thresholds promulgated by the SDAPCD. Operational emissions were estimated using CalEEMod and estimated emissions for fuel transport and fugitive leaks calculated by the applicant. Trip counts and distances were calculated based on the Project's daily throughput, truck tanker capacity, and trip distances provided by US Compliance. In addition, mainline rail emissions were calculated for the portion of the trip in the SDAB using the BNSF ton-mile per gallon, Project throughput, BNSF engine inventory (BNSF 2020) and CARB Vision Access Database emission factors in grams per gallon diesel. EPA AP-42 Section 5.2 was used to estimate the emissions from the transloading process (see Attachment A).

Table 2-6. Operational Criteria Air Pollutant Emissions						
Emission Source	Pollutant					
	ROG	NO_x	CO	SO₂	PM₁₀	PM_{2.5}
Summer Emissions (Pounds per Day)						
CalEEMod Sources	0.30	8.79	4.37	0.06	1.87	0.57
Calculated Fugitive Evaporation	32.27	--	--	--	--	--
Mainline SDAB Rail Emissions	7.67	31.24	5.97	1.96	1.09	1.00
Project Emissions	40.24	40.03	10.34	2.02	2.96	1.57
Winter Emissions (Pounds per Day)						
CalEEMod Sources	0.28	9.12	4.32	0.06	1.87	0.57
Calculated Fugitive Evaporation	32.27	--	--	--	--	--
Mainline SDAB Rail Emissions	7.67	31.24	5.97	1.96	1.09	1.00
Project Emissions	40.22	40.36	10.29	2.02	2.96	1.57
<i>Daily Significance Threshold</i>	75	250	550	250	100	55
Exceed Daily Threshold?	No	No	No	No	No	No

Source: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs.

Notes: Operational emissions for the Proposed Project fugitive VOC/ROG emissions calculated by US Compliance.

Trip counts and distances were calculated based on the Project's daily throughput, truck tanker capacity, and trip distances provided by US Compliance. In addition, mainline rail emissions were calculated using the BNSF ton-mile per gallon, Project throughput, BNSF engine inventory and CARB Vision Access Database emission factors in grams per gallon diesel.

As shown in Table 2-6, the Project's emissions would not exceed any SDAPCD thresholds for any criteria air pollutants during operations.

2.3.3.3 Project Consistency with Air Quality Planning

Consistency with RAQS

As part of its enforcement responsibilities, the USEPA requires each state with federal nonattainment areas to prepare and submit a SIP that demonstrates the means to attain the federal air quality standards. The SIP must integrate federal, state, and local plan components and regulations to identify specific measures to reduce pollution in federal nonattainment areas, using a combination of performance standards and market-based programs. The SDAPCD currently monitors implementation of the SIP in the SDAB through the RAQS, which as previously described contains strategies and tactics to be applied in order to attain and maintain acceptable air quality in the SDAB. The RAQS is the applicable air quality plan for the proposed project. Air quality attainment plans outline emissions limits and control measures to achieve and maintain

these standards by the earliest practical date. As previously described, the SDAPCD has prepared the *2020 Plan for Attaining the National Ozone Standards*.

Consistency with the RAQS is determined by two standards: (1) whether the Project would increase the frequency or severity of violations of existing air quality standards, contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS; and (2) whether the Proposed Project would exceed assumptions contained in the RAQS. The air quality emission projections and emission reduction strategies in the RAQS are based on information from CARB and SANDAG regarding mobile and area source emissions. CARB mobile source emissions projections and SANDAG growth projections are derived from population and vehicle use trends, and land use plans developed by the cities and the County of San Diego as part of their general plans. A project that proposes development consistent with the growth anticipated in a general plan would be consistent with the RAQS and *2020 Plan for Attaining the National Ozone Standards*. Projects that propose development that is greater than the population growth projections and land use intensity of the adopted local general plan warrants further analysis to determine consistency with the RAQS and the SIP.

As evaluated above, the Project would not exceed the short-term construction standards or long-term operational standards (see Tables 2-5 and 2-6) and in so doing would not violate any air quality standards. Therefore, the Project would not contribute to new violations, or delay the timely attainment of air quality standards or interim reductions as contained in the RAQS. Thus, the Project would be consistent with the first criterion. Further, the Project proposal is consistent with the growth anticipated in the National City General Plan and therefore consistent with the second criterion. Therefore, the Project would not conflict with or obstruct implementation of the applicable air quality plan.

Consistency with Portside CERP

The CERP has various strategies to ensure the health, safety, and environmental justice of the Portside community, which surrounds the Project Area. Several of the goals established by the CERP include reducing emissions and the health risks from the operations of commercial and industrial land uses within the community. The majority of the action items associated with the strategies within the CERP direct agencies such as SANDAG, SDAPCD, and local cities to develop and implement the outlined strategies. One of the categories that the CERP addresses is Heavy Duty Truck Strategies, which aims to reduce emissions from diesel trucks in the community. As noted in the Heavy Duty Truck Strategies, the USEPA and CARB have several upcoming actions that would reduce truck emissions statewide. These state and federal agencies will continue to make progress on the goals to reduce truck emissions. Within the CERP's strategies, Action E3 encourages the enforcement of the Truck Route. National City has an established Truck Route Map, indicating the main routes that trucks are permitted on. According to the Traffic Study prepared for the Proposed Project, approximately 97 percent of the truck distribution would head directly towards Interstate 5 (I-5) (KOA 2024). The remaining 3 percent of the truck trip distribution would head east on 18th Street. These trucks would be expected to travel on the nearest primary truck route or alternate truck route in the necessary direction. As previously mentioned, the acceptable routes of which the trucks must travel are established in the National City Truck Route Map. The CERP establishes the City of National City as the enforcement officer of these truck routes within the City's limits. As such, the Proposed Project's trucking

trips will be subject to the enforcement actions that the City may provide, including the requirement that Project trucks travel on the National City Truck Route exclusively.

Furthermore, the Proposed Project proposes to transload renewable fuels and SAF (non-petroleum-based) directly from rail cars into trucks for local deliveries. Renewable Diesel and SAF are able to fully replace petroleum-based fuels with zero modification to storage facilities or combustion engine systems. Biodiesel is a renewable, biodegradable that is often used as a blend with renewable diesel. This blend can be used to replace petroleum diesel with no changes or adverse effects to the engine. Furthermore, according to calculations completed by US Compliance, the Proposed Project's distribution of renewable diesel in the San Diego Area would result in reductions in local air pollutants from the replacement and combustion of regular diesel with renewable diesel. More specifically, the calculations showed meaningful local reductions in NO_x, CO, and PM air pollutants from the introduction of renewable diesel from the Proposed Project, as shown in Table 2-7.

Table 2-7. Potential Emissions Reductions from Replacing Conventional Diesel Fuel with Renewable Diesel Fuel			
Gallons per Day of Fuel Combustion	Criteria Air Pollutants (pounds per day)		
	Nitrogen Oxides	Carbon Monoxide	Particulate Matter
100 Gallons Replaced Daily	-4.3 lbs	-2.9 lbs	-0.1 lbs
200 Gallons Replaced Daily	-8.7 lbs	-5.7 lbs	-0.1 lbs
300 Gallons Replaced Daily	-13.0 lbs	-8.6 lbs	-0.2 lbs
400 Gallons Replaced Daily	-17.4 lbs	-11.4 lbs	-0.3 lbs
500 Gallons Replaced Daily	-21.7 lbs	-14.3 lbs	-0.4 lbs
600 Gallons Replaced Daily	-26.1 lbs	-17.1 lbs	-0.4 lbs
700 Gallons Replaced Daily	-30.4 lbs	-20.0 lbs	-0.5 lbs
800 Gallons Replaced Daily	-34.8 lbs	-22.8 lbs	-0.6 lbs
900 Gallons Replaced Daily	-39.1 lbs	-25.7 lbs	-0.7 lbs
1,000 Gallons Replaced Daily	-43.5 lbs	-28.5 lbs	-0.7 lbs

Source: US Compliance 2023. Calculations details can be provided upon request.

As identified in Table 2-7, for every 1,000 gallons of conventional diesel replaced with renewable diesel, combustion emissions of NO_x, CO, and PM would be reduced by 43.5, 28.5, and 0.7 pounds, respectively. Additionally, a white paper published by the International Council on Clean Transportation (ICCT) on the air quality impacts of biodiesel found that biodiesel combustion results in lower emissions of PM, CO, and hydrocarbons (ICCT 2021). Furthermore, the amended Off-Road Regulation, which as previously described requires the use of R99 or R100 renewable diesel in off-road diesel vehicles, will reduce harmful air pollutants from over 150,000 in-use off-road diesel vehicles that operate in California and is expected to

yield \$5.7 billion in health benefits, prevent more than 570 air-quality related deaths and nearly 200 hospitalizations and emergency room visits from 2023 to 2038 (CARB 2022b). From 2024 through 2038, the current amendments will generate an additional reduction above and beyond the current regulation of approximately 31,087 tons of NO_x and 2,717 tons of PM_{2.5} (CARB 2022b). This confirms that the Proposed Project's distribution of renewable and biodiesel to the surrounding area may have a positive impact on local air quality. As such, the Proposed Project would not conflict with the CERP's goals to reduce diesel PM, would not impede progress towards the goals of establishing zero emission vehicle trucks within the Portside Community, and as described below, would not result in a substantial health risk.

The Project would not conflict with or obstruct implementation of the applicable air quality plan.

2.3.3.4 Exposure of Sensitive Receptors to Toxic Air Contaminants

As previously described, sensitive receptors are defined as facilities or land uses that include members of the population that are particularly sensitive to the effects of air pollutants, such as children, the elderly, and people with illnesses. Examples of these sensitive receptors are residences, schools, hospitals, and daycare centers. CARB has identified the following groups of individuals as the most likely to be affected by air pollution: the elderly over age 65, children under age 14, athletes, and persons with cardiovascular and chronic respiratory diseases such as asthma, emphysema, and bronchitis. The nearest sensitive land use to the Project Area is the McKinley Apartment complex located around 380 feet east of the Project.

Health Risk Assessment

A HRA was performed to determine the health risk associated with operations of the Proposed Project. The HRA analyzed cancer and chronic non-cancer risk calculated for 70-, 30- and 25-year exposure scenarios for operational emissions. Per OEHHA guidance, the 25-year scenario was used to model the health risk for workers at business locations and the 70- and 30-scenarios were used for residents in residential areas.

Operational Toxic Air Contaminant Emission Sources

Operational emissions sources include onsite and offsite trucks and rail traffic. Emissions from mainline and switching locomotives were quantified for a half mile buffer around the Project Area. Thirty minutes per day is used as a "worst case" estimate for local switching activities. The 10 mile an hour speed limitation, latest BNSF locomotive engine distribution and ton mile for a 0.95-mile section of the San Diego track were used to quantify mainline emissions.

In addition, small amounts of TACs emitted from residual fossil fuels in transfer equipment and "worst case" gasoline contents in the ethanol transferred were included. It should be noted that the trucks picking up fuel must either show proof that their last fuel load was the same (bio or renewable diesel) or have had a certified washout since their last fuel load. These emissions include benzene, xylene, and ethylbenzene. However, these emissions are well under their reportable levels. The VOC emissions from additives are less than a pound per year. Therefore, the effects of these TACs are considered negligible and they are not analyzed in this assessment.

Construction Toxic Air Contaminant Emission Sources

All onsite and offsite diesel truck traffic related emissions were generated using EMFAC2021 for construction beginning in the year 2024 and conservatively utilized throughout the proposed period of construction. As previously described, CARB has recently approved amendments to the In-Use Off-Road Diesel-Fueled Fleets Regulation (Off-Road Regulation) aimed at further reducing emissions from the off-road sector. The amendments require the use of R99 or R100 renewable diesel in off-road diesel vehicles. According to CARB (2022b), the amended rule will generate an additional reduction above and beyond the current regulation of approximately 31,087 tons of NO_x and 2,717 tons of PM_{2.5} (CARB 2022b). About half of those additional reductions are expected to be realized within the first five years of implementation (CARB 2022b). Construction emissions modeling for the Proposed Project does not account for the use of renewable diesel. Construction off-road equipment for onsite activities was modeled as 111 line-volume sources placed along the perimeter of the Project Area totaling 0.82 mile. Construction on-road equipment for offsite activities was modeled as 55 line-volume sources traversing the entrance of the Project Area, onto 18th Street, then heading north onto Cleveland Avenue before heading east on Civic Center Drive where access to Interstate 5 is available. Roadway sources all have a width of 3.7 meters using standard line sizing and an estimated one lane. Annual off-road PM₁₀ exhaust emissions generated using the CalEEMod model were used to represent emissions from onsite off-road diesel equipment used throughout construction. The annual emissions for all aspects of construction were used to conservatively estimate annual construction emissions for the estimated Project construction duration of eight months. Detailed calculations for construction emissions can be found in Attachment B of this document.

Dispersion Modeling

The air dispersion modeling for the HRA was performed using the USEPA AERMOD Version 21112 dispersion model. AERMOD is a steady-state, multiple-source, Gaussian dispersion model designed for use with emission sources situated in terrain where ground elevations can exceed the stack heights of the emission sources. The USGS_NED_13_n33w118 file found at U.S. Geological Survey (USGS) was used for elevation data for all sources and receptors in the Project domain. All regulatory defaults were used for dispersion modeling.

AERMOD requires hourly meteorological data consisting of wind vector, wind speed, temperature, stability class, and mixing height. Pre-processed meteorological data files provided by SDAPCD using USEPA's AERMET program, designed to create AERMOD input files for the Perkins Elementary School monitoring station, were selected as being the most representative meteorology based on proximity. The location of the monitoring station in respect to the Project Area is presented in Attachment B to this document. The unit emission rate of one gram per second was utilized in AERMOD to create plot files containing the dispersion factor (X/Q) for each source group. Emissions for each source group as described above were input into HARP2 to calculate the ground level concentrations (GLC) related to Project operations. AERMOD summary files, calculations and figures can be found in Attachment B.

A uniform grid was placed over the Project Area with a spacing of 50 meters encompassing a 2- x 2-kilometer grid and including receptors.

Risk during operations was also modeled utilizing worker factors and residential factors to find the Maximumly Exposed Individual Resident (MEIR) and Maximumly Exposed Individual Worker (MEIW). The

chronic and carcinogenic health risk calculations are based on the standardized equations contained in the *OEHHA Guidance Manual* (2015) as implemented in CARB's HARP2 program (CAPCOA 2022). The risk associated with traffic emissions related to Project operations was assessed as risk associated with future Project operations.

Based on the OEHHA methodology, the residential inhalation cancer risk from the annual average TAC concentrations is calculated by multiplying the daily inhalation or oral dose, by a cancer potency factor, the age sensitivity factor (ASF), the frequency of time spent at home, and the exposure duration divided by averaging time, to yield the excess cancer risk. These factors are discussed in more detail below. Cancer risk must be separately calculated for specified age groups, because of age differences in sensitivity to carcinogens and age differences in intake rates (per kilogram [kg] body weight). Separate risk estimates for these age groups provide a health-protective estimate of cancer risk by accounting for greater susceptibility in early life, including both age-related sensitivity and amount of exposure.

Exposure through inhalation (Dose-air) is a function of the breathing rate, the exposure frequency, and the concentration of a substance in the air. For residential exposure, the breathing rates are determined for specific age groups, so Dose-air is calculated for each of these age groups, 3rd trimester, 0<2, 2<9, 2<16, 16<30 and 16-70 years. To estimate cancer risk, the dose was estimated by applying the following formula to each ground-level concentration:

$$\text{Dose-air} = (C_{\text{air}} * \{BR/BW\} * A * EF * 10^{-6})$$

Where:

Dose-air	=	dose through inhalation (mg/kg/day)
C_{air}	=	air concentration ($\mu\text{g}/\text{m}^3$) from air dispersion model
$\{BR/BW\}$	=	daily breathing rate normalized to body weight (L/kg body weight – day) (361 L/kg BW-day for 3 rd Trimester, 1,090 L/kg BW-day for 0<2 years, 861 L/kg BW-day for 2<9 years, 745 L/kg BW-day for 2<16 years, 335 L/kg BW-day for 16<30 years, and 290 L/kg BW-day 16<70 years)
A	=	Inhalation absorption factor (unitless [1])
EF	=	exposure frequency (unitless), days/365 days (0.96 [approximately 350 days per year])
10^{-6}	=	conversion factor (micrograms to milligrams, liters to cubic meters)

OEHHA developed ASFs to consider the increased sensitivity to carcinogens during early-in-life exposure. In the absence of chemical-specific data, OEHHA recommends a default ASF of 10 for the third trimester to age 2 years, an ASF of 3 for ages 2 through 15 years to account for potential increased sensitivity to carcinogens during childhood and an ASF of 1 for ages 16 through 70 years.

Fraction of time at home (FAH) during the day is used to adjust exposure duration and cancer risk from a specific facility's emissions, based on the assumption that exposure to the facility's emissions are not occurring away from home. OEHHA recommends the following FAH values: from the third trimester to age <2 years, 85 percent of time is spent at home; from age 2 through <16 years, 72 percent of time is spent at home; from age 16 years and greater, 73 percent of time is spent at home.

To estimate the cancer risk, the dose is multiplied by the cancer potency factor, the ASF, the exposure duration divided by averaging time, and the frequency of time spent at home (for residents only):

$$\text{Risk}_{\text{inh-res}} = (\text{Dose}_{\text{air}} * \text{CPF} * \text{ASF} * \text{ED}/\text{AT} * \text{FAH})$$

Where:

$\text{Risk}_{\text{inh-res}}$	=	residential inhalation cancer risk (potential chances per million)
Dose_{air}	=	daily dose through inhalation (mg/kg-day)
CPF	=	inhalation cancer potency factor (mg/kg-day ⁻¹)
ASF	=	age sensitivity factor for a specified age group (unitless)
ED	=	exposure duration (in years) for a specified age group (0.25 years for 3 rd trimester, 2 years for 0<2, 7 years for 2<9, 14 years for 2<16, 14 years for 16<30, 54 years for 16-70)
AT	=	averaging time of lifetime cancer risk (years)
FAH	=	fraction of time spent at home (unitless)

Non-cancer chronic impacts are calculated by dividing the annual average concentration by the Reference Exposure Level (REL) for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The following equation was used to determine the non-cancer risk:

$$\text{Hazard Quotient} = \text{Ci}/\text{RELi}$$

Where:

Ci	=	Concentration in the air of substance i (annual average concentration in $\mu\text{g}/\text{m}^3$)
RELi	=	Chronic noncancer Reference Exposure Level for substance i ($\mu\text{g}/\text{m}^3$)

Cancer Risk

Operational cancer risk calculations for existing residential receptors are based on 70- and 30-year exposure periods and worker receptors are based on a 25-year exposure period to for workers. The calculated cancer risk accounts for 350 days per year of exposure to residential receptors. While the average American spends 87 percent of their life indoors (USEPA 2001), neither the pollutant dispersion modeling nor the health risk calculations account for the reduced exposure structures provide. Instead, health risk calculations account for the equivalent exposure of continual outdoor living. The calculated carcinogenic risk at Project vicinity receptors is depicted in Table 2-8.

Table 2-8. Maximum Cancer Risk Summary

Maximum Exposure Scenario	Total Maximum Risk
Project Operations	
70-Year Exposure Resident	8.92
30-Year Exposure Resident	7.56
25-Year Exposure Worker	1.02
Project Construction	
1-Year Exposure Resident	0.05
1-Year Exposure Worker	0.13
<i>Significance Threshold</i>	<i>10</i>
Exceed Threshold?	No

Source: ECORP Consulting 2023. See Attachment B.

As shown, neither Project operations nor Project construction would result in a significant contribution to cancer risk in the community. These calculations do not account for any pollutant-reducing remedial components inherent to the Project or the Project Area.

The MEIR is located at the southwest corner of the McKinley Apartments on McKinley Avenue while the MEIW is located at the boat facility directly to the east of the Project Area. The offsite Point of Maximum Impact is located on West 18th Street directly to the east of the Project Area. All of the above listed points are presented in Attachment B of this document.

Non-Carcinogenic Hazards

In addition to cancer risk, the significance thresholds for TAC exposure require an evaluation of non-cancer risk stated in terms of a hazard index. Non-cancer chronic impacts are calculated by dividing the annual average concentration by the REL for that substance. The REL is defined as the concentration at which no adverse non-cancer health effects are anticipated. The potential for acute non-cancer hazards is evaluated by comparing the maximum short-term exposure level to an acute REL. RELs are designed to protect sensitive individuals within the population. The calculation of acute non-cancer impacts is like the procedure for chronic non-cancer impacts. Acute impacts would not result from the fuel transfer operations as there is currently no acute hazard index for DPM.

An acute or chronic hazard index of 1.0 is considered individually significant. The hazard index is calculated by dividing the acute or chronic exposure by the REL. The highest maximum chronic hazard and acute hazard indexes for residents and workers in the Proposed Project vicinity as a result of operations emission exposure is shown in Table 2-9.

Table 2-9. Maximum Non-Carcinogenic Hazard Index Health Risk Summary			
Chronic Health Hazard Index			
Exposure Scenario	Maximum (70 yr.) Residential Hazard	Maximum (30 yr.) Residential Hazard	Maximum (25 yr.) Worker Hazard
Operation	0.003	0.003	0.0005
Construction	0.0001	0.0001	0.0000
<i>Significance Threshold</i>	<i>1</i>	<i>1</i>	<i>1</i>
Exceed Threshold?	No	No	No
Acute Health Hazard Index			
Exposure Scenario	Maximum Residential Hazard	Maximum Worker Hazard	Maximum School Hazard
Operation	0.0001	0.0006	--
Construction	0.0000	0.0000	--
<i>Significance Threshold</i>	<i>1</i>	<i>1</i>	<i>1</i>
Exceed Threshold?	No	No	No

Source: ECORP Consulting 2022. See Attachment B.

As shown in Table 2-9, impacts related to non-cancer risk (chronic and acute hazard index) because of the Project are less than significant.

Carbon Monoxide Hot Spots

It has long been recognized that CO exceedances are caused by vehicular emissions, primarily when idling at intersections. Concentrations of CO are a direct function of the number of vehicles, length of delay, and traffic flow conditions. Under certain meteorological conditions, CO concentrations close to congested intersections that experience high levels of traffic and elevated background concentrations may reach unhealthy levels, affecting nearby sensitive receptors. Given the high traffic volume potential, areas of high CO concentrations, or *hot spots*, are typically associated with intersections that are projected to operate at unacceptable levels of service during the peak commute hours. It has long been recognized that CO hotspots are caused by vehicular emissions, primarily when idling at congested intersections. However, transport of this criteria pollutant is extremely limited, and CO disperses rapidly with distance from the source under normal meteorological conditions. Furthermore, vehicle emissions standards have become increasingly more stringent in the last 20 years. Currently, the allowable CO emissions standard in California is a maximum of 3.4 grams/mile for passenger cars (there are requirements for certain vehicles that are more stringent). With the turnover of older vehicles, introduction of cleaner fuels, and implementation of increasingly sophisticated and efficient emissions control technologies, CO concentration in the SDAB is designated as attainment. Detailed modeling of Project-specific CO *hot spots* is not necessary and thus this potential impact is addressed qualitatively.

A CO *hot spot* would occur if an exceedance of the state one-hour standard of 20 parts per million (ppm) or the eight-hour standard of 9 ppm were to occur. The analysis prepared for CO attainment in the South Coast Air Quality Management District's (SCAQMD) 1992 *Federal Attainment Plan for Carbon Monoxide* in Los Angeles County and a Modeling and Attainment Demonstration prepared by the SCAQMD as part of the 2003 Air Quality Management Plan can be used to demonstrate the potential for CO exceedances of these standards. The SCAQMD conducted a CO *hot spot* analysis as part of the 1992 CO Federal Attainment Plan at four busy intersections in Los Angeles County during the peak morning and afternoon time periods. The intersections evaluated included Long Beach Boulevard and Imperial Highway (Lynwood), Wilshire Boulevard and Veteran Avenue (Westwood), Sunset Boulevard and Highland Avenue (Hollywood), and La Cienega Boulevard and Century Boulevard (Inglewood). The busiest intersection evaluated was at Wilshire Boulevard and Veteran Avenue, which has a traffic volume of approximately 100,000 vehicles per day. Despite this level of traffic, the CO analysis concluded that there was no violation of CO standards (SCAQMD 1992). In order to establish a more accurate record of baseline CO concentrations affecting the South Coast Air Basin, a CO *hot spot* analysis was conducted in 2003 at the same four busy intersections in Los Angeles at the peak morning and afternoon time periods. This *hot spot* analysis did not predict any violation of CO standards. The highest one-hour concentration was measured at 4.6 ppm at Wilshire Boulevard and Veteran Avenue and the highest eight-hour concentration was measured at 8.4 ppm at Long Beach Boulevard and Imperial Highway. Current CO concentrations in the South Coast Air Basin are much lower than the measurements mentioned in this example and SDAB CO measurements are lower than the SoCAB.

Similar considerations are also employed by other Air Districts when evaluating potential CO concentration impacts. More specifically, the Bay Area Air Quality Management District, the air pollution control officer for the San Francisco Bay Area, concludes that under existing and future vehicle emission rates, a given project would have to increase traffic volumes at a single intersection by more than 44,000 vehicles per hour or 24,000 vehicles per hour where vertical and/or horizontal air does not mix—in order to generate a significant CO impact.

According to the Project's throughput amounts and capacity of the delivery trucks, it is estimated that the Project would result in approximately 138 truck trips and approximately 30 passenger car trips for employees per day. This would result in a total of 168 trips per day. Thus, the Proposed Project would not generate traffic volumes at any intersection of more than 100,000 vehicles per day (or 44,000 vehicles per day) and there is no likelihood of the Project traffic exceeding CO values.

2.3.3.5 Odors

Typically, odors are regarded as an annoyance rather than a health hazard. However, manifestations of a person's reaction to foul odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory, and respiratory effects, nausea, vomiting, and headache).

With respect to odors, the human nose is the sole sensing device. The ability to detect odors varies considerably among the population and overall is quite subjective. Some individuals can smell minute quantities of specific substances; others may not have the same sensitivity but may have sensitivities to odors of other substances. In addition, people may have different reactions to the same odor; in fact, an odor that is offensive to one person (e.g., from a fast-food restaurant) may be perfectly acceptable to

another. It is also important to note that an unfamiliar odor is more easily detected and is more likely to cause complaints than a familiar one. This is because of the phenomenon known as odor fatigue, in which a person can become desensitized to almost any odor and recognition only occurs with an alteration in the intensity.

Quality and intensity are two properties present in any odor. The quality of an odor indicates the nature of the smell experience. For instance, if a person describes an odor as flowery or sweet, then the person is describing the quality of the odor. Intensity refers to the strength of the odor. For example, a person may use the word *strong* to describe the intensity of an odor. Odor intensity depends on the odorant concentration in the air. When an odorous sample is progressively diluted, the odorant concentration decreases. As this occurs, the odor intensity weakens and eventually becomes so low that the detection or recognition of the odor is quite difficult. At some point during dilution, the concentration of the odorant reaches a detection threshold. An odorant concentration below the detection threshold means that the concentration in the air is not detectable by the average human.

During construction, the Proposed Project presents the potential for generation of objectionable odors in the form of diesel exhaust in the immediate vicinity of the site. However, these emissions are short-term in nature and will rapidly dissipate and be diluted by the atmosphere downwind of the emission sources. Additionally, odors would be localized and generally confined to the construction area. Therefore, construction odors would not adversely affect a substantial number of people to odor emissions.

According to the CARB Air Quality and Land Use Handbook: A Community Health Perspective (CARB 2005), the sources of the most common operational odor complaints received by local air districts include facilities such as sewage treatment plants, landfills, recycling facilities, petroleum refineries, and livestock operations. The Project does not contain any of the land uses identified as typically associated with emissions of objectionable odors.

3.0 GREENHOUSE GAS EMISSIONS

3.1 Greenhouse Gas Setting

Certain gases in the earth's atmosphere, classified as GHGs, play a critical role in determining the earth's surface temperature. Solar radiation enters the earth's atmosphere from space. A portion of the radiation is absorbed by the earth's surface and a smaller portion of this radiation is reflected back toward space. This absorbed radiation is then emitted from the earth as low-frequency infrared radiation. The frequencies at which bodies emit radiation are proportional to temperature. Because the earth has a much lower temperature than the sun, it emits lower-frequency radiation. Most solar radiation passes through GHGs; however, infrared radiation is absorbed by these gases. As a result, radiation that otherwise would have escaped back into space is instead trapped, resulting in a warming of the atmosphere. This phenomenon, known as the greenhouse effect, is responsible for maintaining a habitable climate on earth. Without the greenhouse effect, the earth would not be able to support life as we know it.

Prominent GHGs contributing to the greenhouse effect are CO₂, methane (CH₄), and N₂O. Fluorinated gases also make up a small fraction of the GHGs that contribute to climate change. Fluorinated gases include chlorofluorocarbons, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride; however, it is noted that these gases are not associated with typical land use development. Human-caused emissions of these GHGs in excess of natural ambient concentrations are believed to be responsible for intensifying the greenhouse effect and leading to a trend of unnatural warming of the earth's climate, known as global climate change or global warming. More specifically, experts agree that human activities, principally through emissions of greenhouse gases, have unequivocally caused global warming, with global surface temperature reaching 1.1°C above 1850–1900 in 2011–2020. (Intergovernmental Panel on Climate Change [IPCC] 2023).

Table 3-1 describes the primary GHGs attributed to global climate change, including their physical properties, primary sources, and contributions to the greenhouse effect.

Each GHG differs in its ability to absorb heat in the atmosphere based on the lifetime, or persistence, of the gas molecule in the atmosphere. CH₄ traps over 25 times more heat per molecule than CO₂, and N₂O absorbs 298 times more heat per molecule than CO₂. Often, estimates of GHG emissions are presented in carbon dioxide equivalents (CO₂e), which weight each gas by its global warming potential. Expressing GHG emissions in CO₂e takes the contribution of all GHG emissions to the greenhouse effect and converts them to a single unit equivalent to the effect that would occur if only CO₂ were being emitted.

Climate change is a global problem. GHGs are global pollutants, unlike criteria air pollutants and TACs, which are pollutants of regional and local concern. Whereas pollutants with localized air quality effects have relatively short atmospheric lifetimes (about one day), GHGs have long atmospheric lifetimes (one to several thousand years). GHGs persist in the atmosphere for long enough time periods to be dispersed around the globe. Although the exact lifetime of any particular GHG molecule is dependent on multiple variables and cannot be pinpointed, it is understood that more CO₂ is emitted into the atmosphere than is sequestered by ocean uptake, vegetation, or other forms. Despite the sequestration of CO₂, human-caused climate

change is already causing damaging effects, including weather and climate extremes in every region across the globe (IPCC 2023).

Table 3-1. Summary of Greenhouse Gases

Greenhouse Gas	Description
CO ₂	Carbon dioxide is a colorless, odorless gas. CO ₂ is emitted in a number of ways, both naturally and through human activities. The largest source of CO ₂ emissions globally is the combustion of fossil fuels such as coal, oil, and gas in power plants, automobiles, industrial facilities, and other sources. A number of specialized industrial production processes and product uses such as mineral production, metal production, and the use of petroleum-based products can also lead to CO ₂ emissions. The atmospheric lifetime of CO ₂ is variable because it is so readily exchanged in the atmosphere. ¹
CH ₄	Methane is a colorless, odorless gas and is the major component of natural gas, about 87 percent by volume. It is also formed and released to the atmosphere by biological processes occurring in anaerobic environments. Methane is emitted from a variety of both human-related and natural sources. Human-related sources include fossil fuel production, animal husbandry (intestinal fermentation in livestock and manure management), rice cultivation, biomass burning, and waste management. These activities release significant quantities of CH ₄ to the atmosphere. Natural sources of CH ₄ include wetlands, gas hydrates, permafrost, termites, oceans, freshwater bodies, non-wetland soils, and other sources such as wildfires. The atmospheric lifetime of CH ₄ is about 12 years. ²
N ₂ O	Nitrous oxide is a clear, colorless gas with a slightly sweet odor. Nitrous oxide is produced by both natural and human-related sources. Primary human-related sources of N ₂ O are agricultural soil management, animal manure management, sewage treatment, mobile and stationary combustion of fossil fuels, adipic acid production, and nitric acid production. N ₂ O is also produced naturally from a wide variety of biological sources in soil and water, particularly microbial action in wet tropical forests. The atmospheric lifetime of N ₂ O is approximately 120 years. ³

Sources: (1) USEPA 2023a; (2) USEPA 2023b; (3) USEPA 2023c

The quantity of GHGs that it takes to ultimately result in climate change is not precisely known; it is sufficient to say the quantity is enormous, and no single project alone would measurably contribute to a noticeable incremental change in the global average temperature or to global, local, or microclimates. From the standpoint of CEQA, GHG impacts to global climate change are inherently cumulative.

3.1.1 Sources of Greenhouse Gas Emissions

In 2023, CARB released the 2023 edition of the California GHG inventory covering calendar year 2021 emissions. In 2021, California emitted 381.3 million gross metric tons of CO₂e including from imported electricity. This inventory is 3.4 percent higher than the State's 2020 inventory, but 5.7 percent lower than 2019 level, which aligns with the global changes, shutdowns, and economic recoveries affected by the COVID-19 pandemic. Additionally, between 2020 and 2021, California's Gross Domestic Product (GDP) increased 7.8 percent while the GHG intensity of California's economy (GHG emissions per unit GDP) decreased 4.1 percent. Combustion of fossil fuel in the transportation sector was the single largest source of California's GHG emissions in 2021, accounting for approximately 38.2 percent of total GHG emissions in the state. Transportation emissions have increased 7.4 percent compared to 2020, which is most likely from

light duty vehicle emissions that rebounded when COVID-19 shelter-in-place orders were lifted. Emissions from the electricity sector account for 16.4 percent of the inventory, which is an increase of 4.8 percent since 2020, despite the growth of in-state solar and imported renewable energy. California's industrial sector accounts for the second largest source of the state's GHG emissions in 2021, accounting for 19.4 percent, which saw an increase of nearly 1 percent since 2020 (CARB 2023b).

3.2 Regulatory Framework

3.2.1 State

3.2.1.1 Executive Order S-3-05

Executive Order (EO) S-3-05, signed by Governor Arnold Schwarzenegger in 2005, proclaims that California is vulnerable to the impacts of climate change. It declares that increased temperatures could reduce the Sierra Nevada snowpack, further exacerbate California's air quality problems, and potentially cause a rise in sea levels. To combat those concerns, the EO established total GHG emission targets for the state. Specifically, emissions are to be reduced to the 2000 level by 2010, the 1990 level by 2020, and to 80 percent below the 1990 level by 2050.

3.2.1.2 Assembly Bill 32 Climate Change Scoping Plan and Updates

In 2006, the California legislature passed Assembly Bill (AB) 32 (Health and Safety Code § 38500 et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 required CARB to design and implement feasible and cost-effective emission limits, regulations, and other measures, such that statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction in emissions). Pursuant to AB 32, CARB adopted a Scoping Plan in December 2008, which outlined measures to meet the 2020 GHG reduction goals. California exceeded the target of reducing GHG emissions to 1990 levels by the year 2017.

The Scoping Plan is required by AB 32 to be updated at least every five years. The latest update, the 2022 Scoping Plan Update, outlines strategies and actions to reduce greenhouse gas emissions in California. The plan focuses on achieving the state's goal of reaching carbon neutrality by 2045 and reducing greenhouse gas emissions to 40% below 1990 levels by 2030. The plan includes a range of strategies across various sectors, including transportation, industry, energy, and agriculture. Some of the key strategies include transitioning to zero-emission vehicles, expanding renewable energy sources, promoting sustainable land use practices, implementing a low-carbon fuel standard, and reducing emissions from buildings. Additionally, the plan addresses equity and environmental justice by prioritizing investments in communities most impacted by pollution and climate change. The plan also aims to promote economic growth and job creation through the transition to a low-carbon economy.

3.2.1.3 Senate Bill 32 and Assembly Bill 197 of 2016

In August 2016, Governor Edmund "Jerry" Brown signed SB 32 and AB 197, which serve to extend California's GHG reduction programs beyond 2020. SB 32 amended the Health and Safety Code to include § 38566,

which contains language to authorize CARB to achieve a statewide GHG emission reduction of at least 40 percent below 1990 levels by no later than December 31, 2030.

3.2.1.4 Senate Bill X1-2 of 2011, Senate Bill 350 of 2015, and Senate Bill 100 of 2018

In 2018, SB 100 was signed codifying a goal of 60 percent renewable procurement by 2030 and 100 percent by 2045 Renewables Portfolio Standard

3.2.1.5 2022 Building Energy Efficiency Standards for Residential and Nonresidential Buildings

The Building and Efficiency Standards (Energy Standards) were first adopted and put into effect in 1978 and have been updated periodically in the intervening years. These standards are a unique California asset that have placed the State on the forefront of energy efficiency, sustainability, energy independence and climate change issues. The 2022 California Building Codes include provisions related to energy efficiency to reduce energy consumption and greenhouse gas emissions from buildings. Some of the key energy efficiency components of the codes are:

1. Energy Performance Requirements: The codes specify minimum energy performance standards for the building envelope, lighting, heating and cooling systems, and other components.
2. Lighting Efficiency: The codes require that lighting systems meet minimum efficiency standards, such as the use of energy-efficient light bulbs and fixtures.
3. HVAC Systems: The codes establish requirements for heating, ventilation, and air conditioning (HVAC) systems, including the use of high-efficiency equipment, duct sealing, and controls.
4. Building Envelope: The codes include provisions for insulation, air sealing, glazing, and other building envelope components to reduce energy loss and improve indoor comfort.
5. Renewable Energy: The codes encourage the use of renewable energy systems, such as photovoltaic panels and wind turbines, to reduce dependence on non-renewable energy sources.
6. Commissioning: The codes require the commissioning of building energy systems to ensure that they are installed and operate correctly and efficiently.

Overall, the energy efficiency provisions of the 2022 California Building Codes aim to reduce the energy consumption of buildings, lower energy costs for building owners and occupants, and reduce the environmental impact of the built environment. The 2022 Building Energy Efficiency Standards improve upon the 2019 Energy Standards for new construction of, and additions and alterations to, residential and nonresidential buildings. The exact amount by which the 2022 Building Codes are more efficient compared to the 2019 Building Codes would depend on the specific provisions that have been updated and the specific building being considered. However, in general, the 2022 Building Codes have been updated to include increased requirements for energy efficiency, such as higher insulation and air sealing standards, which are intended to result in more efficient buildings. The 2022 standards are a major step toward meeting Zero Net Energy.

3.2.2 Local

3.2.2.1 National City General Plan

National City adopted the General Plan in 2011. The Land Use and Community Character Planning Element of the General Plan contains statistics regarding existing and planned land uses. The Community Planning Element serves as the foundational guiding document regarding baseline conditions for the Climate Action Plan (CAP).

The CAP acts to support implementation of the General Plan through support for continued incremental changes to the urban land use form, providing greater transportation choices, and transforming the way energy is used and produced. Further, the CAP complements the General Plan policies to reduce GHG emissions with quantified benchmarks for success.

The Conservation and Sustainability Element of the General Plan includes goals related to reducing GHG emissions with a focus on the two largest emission sources: the built environment and vehicles. The Conservation and Sustainability Element contains numerous strategies the City aims to use to promote sustainability and conservation.

3.2.2.2 National City Climate Action Plan

The City prepared its first CAP in 2011 to address climate change at a local level. As part of the CAP, the City implemented emissions targets up until 2020. Per subsequent emissions inventories, the City has achieved the 2020 target. In 2023, the City established a CAP Update to address GHG emissions on a local level to help achieve the State's GHG emission reduction goals. The CAP Update has set targets for the City to reduce 2018 baseline conditions 40 percent by 2030 and 80 percent by 2050 to align its reductions with Statewide targets. These reduction targets equate to 310,959 metric tons of CO₂e by 2030 (4.5 metric tons of CO₂e per capita) and 103,653 metric tons (1.21 metric tons of CO₂e per capita) by 2050. The CAP Update has several strategies that it plans to employ to reduce community-wide GHG emissions, including from transportation, commercial and industrial land uses, residential land uses, solid waste, and water and wastewater.

3.2.3 Thresholds of Significance

The impact analysis provided below is based on the following CEQA Guidelines Appendix G thresholds of significance. The Project would result in a significant impact to GHG emissions if it would:

- 1) Generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment.
- 2) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases.

The Appendix G thresholds for GHG emissions do not prescribe specific methodologies for performing an assessment, do not establish specific thresholds of significance, and do not mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the

appropriate methodologies and thresholds of significance consistent with the manner in which other impact areas are handled in CEQA. With respect to GHG emissions, the CEQA Guidelines Section 15064.4(a) states that lead agencies “shall make a good-faith effort, based to the extent possible on scientific and factual data, to describe, calculate or estimate” GHG emissions resulting from a project. The CEQA Guidelines note that an agency has the discretion to either quantify a project’s GHG emissions or rely on a “qualitative analysis or other performance-based standards.” (14 California Code of Regulations [CCR] 15064.4(b)). A lead agency may use a “model or methodology” to estimate GHG emissions and has the discretion to select the model or methodology it considers “most appropriate to enable decision makers to intelligently consider the project’s incremental contribution to climate change.” (14 CCR 15064.4(c)). Section 15064.4(b) provides that the lead agency should consider the following when determining the significance of impacts from GHG emissions on the environment:

- 1) The extent a project may increase or reduce GHG emissions as compared to the existing environmental setting.
- 2) Whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project.
- 3) The extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4(b)).

In addition, Section 15064.7(c) of the CEQA Guidelines specifies that “[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence” (14 CCR 15064.7(c)). The CEQA Guidelines also clarify that the effects of GHG emissions are cumulative and should be analyzed in the context of CEQA’s requirements for cumulative impact analysis (see CEQA Guidelines Section 15130). As a note, the CEQA Guidelines were amended in response to Senate Bill 97. In particular, the CEQA Guidelines were amended to specify that compliance with a GHG emissions reduction plan renders a cumulative impact insignificant.

Per CEQA Guidelines Section 15064(h)(3), a project’s incremental contribution to a cumulative impact can be found not cumulatively considerable if the project would comply with an approved plan or mitigation program that provides specific requirements that would avoid or substantially lessen the cumulative problem within the geographic area of the project. To qualify, such plans or programs must be specified in law or adopted by the public agency with jurisdiction over the affected resources through a public review process to implement, interpret, or make specific the law enforced or administered by the public agency. Examples of such programs include a “water quality control plan, air quality attainment or maintenance plan, integrated waste management plan, habitat conservation plan, natural community conservation plans [and] plans or regulations for the reduction of greenhouse gas emissions.” Put another way, CEQA Guidelines Section 15064(h)(3) allows a lead agency to make a finding of less than significant for GHG emissions if a project complies with adopted programs, plans, policies and/or other regulatory strategies to reduce GHG emissions.

The significance of the Project's GHG emissions is evaluated consistent with CEQA Guidelines § 15064.4(b)(2) by considering whether the Project complies with applicable plans, policies, regulations, and requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions. The SDAPCD does not identify any numeric GHG significance thresholds. As previously described, Section 15064.7(c) of the CEQA Guidelines specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies, or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence" (14 CCR 15064.7(c)). Thus, in the absence of any numeric GHG emissions significance thresholds, the Project is also evaluated for consistency with the City's CAP.

In addition to a comparison of Project consistency with the City CAP, Project GHG emissions are compared to the GHG thresholds recommended by the South Coast Air Quality Management District (SCAQMD), the air pollution control officer for the South Coast Air Basin. The SCAQMD threshold of 3,000 metric tons of CO₂e annually is considered appropriate for the purposes of this analysis due to the proximities of the South Coast Air Basin and the SDAB. The 3,000 metric tons of CO₂e per year threshold represents a 90 percent capture rate (i.e., this threshold captures projects that represent approximately 90 percent of GHG emissions from new sources). The 3,000 metric tons of CO₂e per year value is typically used in defining small projects that are considered less than significant because it represents less than one percent of future 2050 statewide GHG emissions target and the lead agency can provide more efficient implementation of CEQA by focusing its scarce resources on the top 90 percent. Land use projects above the 3,000 metric tons of CO₂e per year level would fall within the percentage of largest projects that are worth mitigating without wasting scarce financial, governmental, physical, and social resources. In *Center for Biological Diversity v. Department of Fish and Wildlife* (2015) 62 Cal. 4th 2014, 213, 221, 227, following its review of various potential GHG thresholds proposed in an academic study [Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203], the California Supreme Court identified the use of numeric bright-line thresholds as a potential pathway for compliance with CEQA GHG requirements. The study found numeric bright line thresholds designed to determine when small projects were so small as to not cause a cumulatively considerable impact on global climate change was consistent with CEQA. Specifically, Public Resources Code section 21003(f) provides it is a policy of the state that "[a]ll persons and public agencies involved in the environmental review process be responsible for carrying out the process in the most efficient, expeditious manner in order to conserve the available financial, governmental, physical and social resources with the objective that those resources may be better applied toward the mitigation of actual significant effects on the environment." The Supreme Court-reviewed study noted, "[s]ubjecting the smallest projects to the full panoply of CEQA requirements, even though the public benefit would be minimal, would not be consistent with implementing the statute in the most efficient, expeditious manner. Nor would it be consistent with applying lead agencies' scarce resources toward mitigating actual significant climate change impacts." (Crockett, Addressing the Significance of Greenhouse Gas Emissions: California's Search for Regulatory Certainty in an Uncertain World (July 2011), 4 Golden Gate U. Envtl. L. J. 203, 221, 227.)

3.3 Methodology

GHG-related impacts were assessed in accordance with methodologies recommended in the City's CAP. While GHG emission quantification is not required by the City, emissions were modeled using the California Emissions Estimator Model (CalEEMod), version 2022.1 for disclosure purposes. CalEEMod is a statewide land use emissions computer model designed to quantify potential GHG emissions associated with both construction and operations from a variety of land use projects. Project construction generated GHG emissions were primarily calculated using CalEEMod model defaults for San Diego County and information provided by the Project proponent, such as the site acreage. Operational air pollutant emissions were calculated based on specific Project site plans, the Project's daily throughput, truck tanker capacity, and trip distances. In addition, mainline rail emissions were calculated with the BNSF references, and operational emissions were calculated with CARB Vision Access Database emission factors (see Attachment A). Based on the Project's fuel throughput, delivery truck capacity, and other retailer location data from US Compliance, the average mileage of 12.32 per one way trip was calculated and accounted for in the modeling calculations. In addition, the fleet mix was adjusted to reflect 69 heavy-duty trucks making both an inbound trip and outbound trip daily for a total of 138 daily heavy-duty truck trips and 42 passenger automobile trips associated with the onsite workers.

3.3.1 Impact Analysis

3.3.1.1 Conflict with any Applicable Plan, Policy, or Regulation of an Agency Adopted for the Purpose of Reducing the Emissions of Greenhouse Gases

As previously described, the City prepared a CAP Update in 2023 to establish new GHG reduction goals and to align with new California regulations and targets to address climate change. The CAP is a strategic planning document that identifies sources of GHG emissions within the City, presents current and future emission estimates, identifies a GHG reduction target for future years, and presents policy provisions to reduce emissions. As part of the CAP Update, the City implemented an emissions target of reducing 2018 baseline conditions 40 percent by 2030 and 80 percent by 2050.

The CAP Update has several required policies and actions that would apply to the Proposed Project's construction and operations. The Proposed Project would need to incorporate all applicable actions to demonstrate consistency with this climate planning document. These measures will be enforced as conditions of approval for ensuring that compliance can be confirmed before the Project can be implemented. Therefore, the following actions have been identified that apply to the Proposed Project:

- **TLU-2.1:** Encourage all new residential, governmental, and commercial buildings to be electric vehicle ready (i.e. charging stations, preferred parking, etc.).
- **TLU-2.6:** Encourage the reduction of idling times for commercial vehicles and construction equipment.
- **RCB-2.1:** Encourage private development projects to exceed the energy efficiency requirements of CalGreen by providing technical assistance, financial assistance and other incentives.

- **RCB-2.2:** Encourage LEED certification for all new commercial and industrial buildings.
- **RE-1.2:** Encourage restricting new natural gas lines in buildings.

As noted above, the Proposed Project would need to incorporate all applicable CAP Update actions to demonstrate consistency with the City's climate action planning efforts. The Project proponent has noted that there will be no natural gas used as a part of the Project's operations, consistent with Action RE-1.2. Additionally, the Project does not propose a new commercial or industrial building. Mitigation Measure GHG-1 ensures compatibility and consistency with the rest of the applicable GHG reduction plans, policies, and regulations.

GHG-1: Adhere to National City's Climate Action Planning Reduction Measures

The Project shall implement the following applicable greenhouse gas-reducing measures, consistent with National City Climate Action Plan Update:

- Ensure the employee parking lot is electric vehicle ready (i.e. charging stations, preferred parking, etc.).
- Encourage the reduction of idling times for all employee and tanker truck vehicles, as well as construction equipment.
- Ensure the requirements The California Green Building Standards Code—Part 11, Title 24, California Code of Regulations (CalGreen) are met.

Timing/Implementation: Prior to the issuance of occupancy permits

Monitoring/Enforcement: The National City Planning Division

Implementation of Mitigation Measure GHG-1 ensures compatibility and consistency with the City's climate action planning goals.

Furthermore, the GHG reduction strategies in the CAP Update build upon the City's previous CAP and updated emission inventory. Both the existing and the projected GHG inventories in the CAP were derived based on the land use designations defined in the City General Plan. The Proposed Project is consistent with the land use designation and development density presented in the General Plan. The Project is not proposing to amend the City General Plan and is consistent with all land use designations applied to the Project Area. Since the Project is consistent with the General Plan's land use designation map, it is consistent with the types, intensity, and patterns of land use envisioned for the site vicinity in the General Plan, and therefore aligns with the land use assumptions used in the CAP Update.

It is further noted that the Project proposes to transload renewable fuels and SAF (non-petroleum-based) directly from rail cars into trucks for local deliveries. Renewable Diesel and SAF can be produced with new or recycled vegetable oils, animal fats, greases, algae, crop residues or woody biomass. Renewable Diesel and SAF are also designated as a *drop-in* biofuel allowing them to fully replace petroleum-based fuels with zero modification to storage facilities or combustion engine systems. When used in diesel engines, renewable diesel can reduce GHG emissions by up to 70 percent compared to traditional diesel fuels when accounting for the complete life cycle of renewable diesel. Biodiesel is a renewable, biodegradable fuel

manufactured domestically from vegetable oils, animal fats, or recycled restaurant grease. Biodiesel is often used as a blend with renewable diesel. Renewable diesel and a blend of biodiesel reduce GHG emissions compared with traditional diesel fuel and can be used to replace petroleum diesel with no changes or adverse effects to the engine. Project delivery trucks would be loaded with either renewable diesel fuel, ethanol or SAF. The fuel would then be distributed to the greater San Diego area via these truck to local retailers, promoting the goals set out by SB 32 and the latest CARB Scoping Plan (2022), which addresses ways for California to reach carbon neutrality by 2045 and reducing GHG emissions to 40 percent below 1990 levels by 2030. Effort to develop Projects like this one reduce reliance on fossil fuels, reduce and reuse waste streams, and reduces GHG emissions. Additionally, the production and use of biofuels advances the goal of California's Low-Carbon Fuels Standard, another component of the AB 32 Scoping Plan. Furthermore, with the ability to utilize a wide variety of resources to produce renewable diesel, biodiesel and SAS, these biofuels are considered 100 percent sustainable. These characteristics make these fuels environmentally, socially, and in long-term respects, economically preferable to petroleum-based fuels. Given these facts, once the proposed facility is completed, the National City would be considered a *Clean Fuels* hub for the greater San Diego Area.

3.3.1.2 Project Generated Greenhouse Gas Emissions

Construction

Construction-related activities that would generate GHG emissions include on- and off-road equipment traffic. Table 3-2 illustrates the specific construction generated GHG emissions that would result from construction of the Project. Once construction is complete, the generation of these GHG emissions would cease.

Table 3-2. Construction Related Greenhouse Gas Emissions	
Description	CO₂e Emissions (Metric Tons/Year)
Construction – Year 1	282
Total Construction Emissions	282
<i>Significance Threshold</i>	<i>3,000</i>
Exceed Threshold?	No

Sources: CalEEMod version 2022.1. Refer to Attachment A for Model Data Outputs

As shown in Table 3-2, Project construction would result in the generation of approximately 282 metric tons of CO₂e over the course of construction. Once construction is complete, the generation of these GHG emissions would cease.

Operations

Operation of the Project would result in GHG emissions predominantly associated with motor vehicle use. Long-term operational GHG emissions attributable to the Project are identified in Table 3-3. Emissions resulting from mainline train locomotive emissions are also included.

Table 3-3. Operational Related Greenhouse Gas Emissions

Description	CO₂e Emissions (Metric Tons/Year)
Mobile	1,038
Area	<1
Energy	1
Water	<1
Waste	<1
Mainline Rail	486
Project Operations Total	1,525
<i>Significance Threshold</i>	<i>3,000</i>
Exceed Threshold?	No

Sources: CalEEMod version 2022.1. See Attachment A for modeling assumptions.

Notes: Emission projections are predominantly based on CalEEMod model defaults for San Diego County.
Average daily vehicle trips provided by KOA (2022).

As shown in Table 3-3, operational-generated emissions would total to approximately 1,525 metric tons of CO₂e, which would not exceed the numeric bright-line threshold of 3,000 metric tons of CO₂e annually. This significance threshold was developed based on substantial evidence that such thresholds represent quantitative levels of GHG emissions, compliance with which means that the environmental impact of the GHG emissions will normally not be cumulatively considerable under CEQA. The 3,000 metric tons of CO₂e per year value represents less than one percent of future 2050 statewide GHG emissions target.

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ATTACHMENT A

Criteria Air Pollutants & Greenhouse Gas Emissions CalEEMod Output Files and Operational
Permitting Calculations

**CALIFORNIA EMISSIONS ESTIMATOR MODEL
(CALEEMod) OUTPUTS**

National City Clean Fuels Facility Detailed Report

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1. Basic Project Information

1.1. Basic Project Information

Data Field	Value
Project Name	National City Clean Fuels Facility
Construction Start Date	3/1/2024
Operational Year	2025
Lead Agency	—
Land Use Scale	Project/site
Analysis Level for Defaults	County
Windspeed (m/s)	3.00
Precipitation (days)	21.0
Location	830 W 18th St, National City, CA 91950, USA
County	San Diego
City	National City
Air District	San Diego County APCD
Air Basin	San Diego
TAZ	6672
EDFZ	12
Electric Utility	San Diego Gas & Electric
Gas Utility	San Diego Gas & Electric
App Version	2022.1.1.21

1.2. Land Use Types

Land Use Subtype	Size	Unit	Lot Acreage	Building Area (sq ft)	Landscape Area (sq ft)	Special Landscape Area (sq ft)	Population	Description
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Unrefrigerated Warehouse-Rail	0.50	1000sqft	0.01	500	0.00	—	—	—
Other Asphalt Surfaces	7.49	Acre	7.49	0.00	0.00	—	—	—

1.3. User-Selected Emission Reduction Measures by Emissions Sector

No measures selected

2. Emissions Summary

2.1. Construction Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.72	36.0	33.8	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,465	5,465	0.22	0.05	0.68	5,486
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	3.72	36.0	33.7	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,456	5,456	0.22	0.05	0.02	5,476
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	1.41	10.4	10.7	0.02	0.47	4.46	4.93	0.43	2.24	2.67	—	1,699	1,699	0.07	0.02	0.13	1,706
Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.26	1.89	1.95	< 0.005	0.09	0.81	0.90	0.08	0.41	0.49	—	281	281	0.01	< 0.005	0.02	282

2.2. Construction Emissions by Year, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Year	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily - Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.72	36.0	33.8	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,465	5,465	0.22	0.05	0.68	5,486
Daily - Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	3.72	36.0	33.7	0.05	1.60	19.8	21.4	1.47	10.1	11.6	—	5,456	5,456	0.22	0.05	0.02	5,476
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	1.41	10.4	10.7	0.02	0.47	4.46	4.93	0.43	2.24	2.67	—	1,699	1,699	0.07	0.02	0.13	1,706
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2024	0.26	1.89	1.95	< 0.005	0.09	0.81	0.90	0.08	0.41	0.49	—	281	281	0.01	< 0.005	0.02	282

2.4. Operations Emissions Compared Against Thresholds

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Un/Mit.	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.30	8.79	4.37	0.06	0.10	1.77	1.87	0.09	0.47	0.57	0.47	6,274	6,274	0.40	0.97	13.8	6,586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.28	9.12	4.32	0.06	0.10	1.77	1.87	0.09	0.47	0.57	0.47	6,263	6,264	0.40	0.97	0.36	6,563
Average Daily (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.29	9.08	4.30	0.06	0.10	1.75	1.85	0.09	0.47	0.56	0.47	6,263	6,264	0.40	0.97	5.96	6,568

Annual (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unmit.	0.05	1.66	0.79	0.01	0.02	0.32	0.34	0.02	0.09	0.10	0.08	1,037	1,037	0.07	0.16	0.99	1,087

2.5. Operations Emissions by Sector, Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Sector	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	8.79	4.35	0.06	0.10	1.77	1.87	0.09	0.47	0.57	—	6,269	6,269	0.35	0.97	13.8	6,580
Area	0.07	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Water	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Waste	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Total	0.30	8.79	4.37	0.06	0.10	1.77	1.87	0.09	0.47	0.57	0.47	6,274	6,274	0.40	0.97	13.8	6,586
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.22	9.12	4.32	0.06	0.10	1.77	1.87	0.09	0.47	0.57	—	6,259	6,259	0.35	0.97	0.36	6,556
Area	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Water	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Waste	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Total	0.28	9.12	4.32	0.06	0.10	1.77	1.87	0.09	0.47	0.57	0.47	6,263	6,264	0.40	0.97	0.36	6,563
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.23	9.08	4.29	0.06	0.10	1.75	1.85	0.09	0.47	0.56	—	6,259	6,259	0.35	0.97	5.96	6,562
Area	0.06	< 0.005	0.01	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.04	0.04	< 0.005	< 0.005	—	0.04

Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Water	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Waste	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Total	0.29	9.08	4.30	0.06	0.10	1.75	1.85	0.09	0.47	0.56	0.47	6,263	6,264	0.40	0.97	5.96	6,568
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Mobile	0.04	1.66	0.78	0.01	0.02	0.32	0.34	0.02	0.09	0.10	—	1,036	1,036	0.06	0.16	0.99	1,086
Area	0.01	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Energy	0.00	0.00	0.00	0.00	0.00	—	0.00	0.00	—	0.00	—	0.58	0.58	< 0.005	< 0.005	—	0.58
Water	—	—	—	—	—	—	—	—	—	—	0.04	0.21	0.25	< 0.005	< 0.005	—	0.37
Waste	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.15
Total	0.05	1.66	0.79	0.01	0.02	0.32	0.34	0.02	0.09	0.10	0.08	1,037	1,037	0.07	0.16	0.99	1,087

3. Construction Emissions Details

3.1. Site Preparation (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	3.65	36.0	32.9	0.05	1.60	—	1.60	1.47	—	1.47	—	5,296	5,296	0.21	0.04	—	5,314
Dust From Material Movement	—	—	—	—	—	19.7	19.7	—	10.1	10.1	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.60	5.91	5.41	0.01	0.26	—	0.26	0.24	—	0.24	—	871	871	0.04	0.01	—	874
Dust From Material Movement	—	—	—	—	—	3.23	3.23	—	1.66	1.66	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.11	1.08	0.99	< 0.005	0.05	—	0.05	0.04	—	0.04	—	144	144	0.01	< 0.005	—	145
Dust From Material Movement	—	—	—	—	—	0.59	0.59	—	0.30	0.30	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.06	0.86	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	169	169	0.01	0.01	0.68	172

Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.07	0.07	0.76	0.00	0.00	0.15	0.15	0.00	0.03	0.03	—	160	160	0.01	0.01	0.02	162
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.13	0.00	0.00	0.02	0.02	0.00	0.01	0.01	—	26.5	26.5	< 0.005	< 0.005	0.05	26.9
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	4.39	4.39	< 0.005	< 0.005	0.01	4.45
Vendor	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
Hauling	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

3.3. Grading (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	1.90	18.2	18.8	0.03	0.84	—	0.84	0.77	—	0.77	—	2,958	2,958	0.12	0.02	—	2,969

Dust From Material Movement	—	—	—	—	—	7.08	7.08	—	3.42	3.42	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.31	3.00	3.09	< 0.005	0.14	—	0.14	0.13	—	0.13	—	486	486	0.02	< 0.005	—	488
Dust From Material Movement	—	—	—	—	—	1.16	1.16	—	0.56	0.56	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.06	0.55	0.56	< 0.005	0.03	—	0.03	0.02	—	0.02	—	80.5	80.5	< 0.005	< 0.005	—	80.8
Dust From Material Movement	—	—	—	—	—	0.21	0.21	—	0.10	0.10	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	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
Hauling	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

Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.7	22.7	< 0.005	< 0.005	0.04	23.1
Vendor	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
Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.76	3.76	< 0.005	< 0.005	0.01	3.82
Vendor	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
Hauling	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

3.5. Paving (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	—	1,517
Paving	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.85	7.81	10.0	0.01	0.39	—	0.39	0.36	—	0.36	—	1,512	1,512	0.06	0.01	—	1,517
Paving	0.33	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	1.28	1.65	< 0.005	0.06	—	0.06	0.06	—	0.06	—	248	248	0.01	< 0.005	—	249
Paving	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.03	0.23	0.30	< 0.005	0.01	—	0.01	0.01	—	0.01	—	41.1	41.1	< 0.005	< 0.005	—	41.3
Paving	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.05	0.74	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	145	145	0.01	0.01	0.58	147
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.06	0.06	0.65	0.00	0.00	0.13	0.13	0.00	0.03	0.03	—	137	137	0.01	0.01	0.02	139
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	0.01	0.01	0.11	0.00	0.00	0.02	0.02	0.00	< 0.005	< 0.005	—	22.7	22.7	< 0.005	< 0.005	0.04	23.1
Vendor	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

Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	< 0.005	< 0.005	0.02	0.00	0.00	< 0.005	< 0.005	0.00	< 0.005	< 0.005	—	3.76	3.76	< 0.005	< 0.005	0.01	3.82
Vendor	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
Hauling	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

3.7. Architectural Coating (2024) - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Location	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Onsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectu ral Coatings	1.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	0.14	0.91	1.15	< 0.005	0.03	—	0.03	0.03	—	0.03	—	134	134	0.01	< 0.005	—	134
Architectu ral Coatings	1.55	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Off-Road Equipment	0.02	0.15	0.19	< 0.005	0.01	—	0.01	< 0.005	—	< 0.005	—	21.9	21.9	< 0.005	< 0.005	—	22.0
Architectural Coatings	0.26	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Off-Road Equipment	< 0.005	0.03	0.03	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	3.63	3.63	< 0.005	< 0.005	—	3.65
Architectural Coatings	0.05	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Onsite truck	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
Offsite	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	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
Average Daily	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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

Hauling	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Worker	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
Vendor	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
Hauling	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

4. Operations Emissions Details

4.1. Mobile Emissions by Land Use

4.1.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.05	1.53	0.81	0.01	0.02	0.27	0.29	0.01	0.07	0.09	—	984	984	0.06	0.15	2.12	1,033
Other Asphalt Surfaces	0.18	7.26	3.55	0.05	0.08	1.50	1.58	0.08	0.40	0.48	—	5,285	5,285	0.29	0.81	11.7	5,546
Total	0.23	8.79	4.35	0.06	0.10	1.77	1.87	0.09	0.47	0.57	—	6,269	6,269	0.35	0.97	13.8	6,580
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.05	1.59	0.81	0.01	0.02	0.27	0.29	0.01	0.07	0.09	—	983	983	0.06	0.15	0.06	1,030

Other Asphalt Surfaces	0.17	7.53	3.51	0.05	0.08	1.50	1.58	0.08	0.40	0.48	—	5,275	5,275	0.29	0.82	0.30	5,526
Total	0.22	9.12	4.32	0.06	0.10	1.77	1.87	0.09	0.47	0.57	—	6,259	6,259	0.35	0.97	0.36	6,556
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	0.01	0.29	0.15	< 0.005	< 0.005	0.05	0.05	< 0.005	0.01	0.02	—	163	163	0.01	0.03	0.15	171
Other Asphalt Surfaces	0.03	1.37	0.64	0.01	0.02	0.27	0.29	0.01	0.07	0.09	—	873	873	0.05	0.13	0.84	916
Total	0.04	1.66	0.78	0.01	0.02	0.32	0.34	0.02	0.09	0.10	—	1,036	1,036	0.06	0.16	0.99	1,086

4.2. Energy

4.2.1. Electricity Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	3.52	3.52	< 0.005	< 0.005	—	3.53
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58	< 0.005	< 0.005	—	0.58
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	—	0.58	0.58	< 0.005	< 0.005	—	0.58

4.2.3. Natural Gas Emissions By Land Use - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	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
Other Asphalt Surfaces	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
Total	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
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	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
Other Asphalt Surfaces	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
Total	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
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	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
Other Asphalt Surfaces	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
Total	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

4.3. Area Emissions by Source

4.3.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Source	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09

Total	0.07	< 0.005	0.02	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.09	0.09	< 0.005	< 0.005	—	0.09
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.04	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	0.03	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	0.06	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Consumer Products	0.01	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Architectural Coatings	< 0.005	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Landscape Equipment	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01
Total	0.01	< 0.005	< 0.005	< 0.005	< 0.005	—	< 0.005	< 0.005	—	< 0.005	—	0.01	0.01	< 0.005	< 0.005	—	0.01

4.4. Water Emissions by Land Use

4.4.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Unrefrigerated	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.22	1.27	1.49	0.02	< 0.005	—	2.22
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	0.04	0.21	0.25	< 0.005	< 0.005	—	0.37
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.04	0.21	0.25	< 0.005	< 0.005	—	0.37

4.5. Waste Emissions by Land Use

4.5.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
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Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.25	0.00	0.25	0.03	0.00	—	0.89
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Unrefrigerated Warehouse-Rail	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.15
Other Asphalt Surfaces	—	—	—	—	—	—	—	—	—	—	0.00	0.00	0.00	0.00	0.00	—	0.00
Total	—	—	—	—	—	—	—	—	—	—	0.04	0.00	0.04	< 0.005	0.00	—	0.15

4.6. Refrigerant Emissions by Land Use

4.6.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.7. Offroad Emissions By Equipment Type

4.7.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.8. Stationary Emissions By Equipment Type

4.8.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.9. User Defined Emissions By Equipment Type

4.9.1. Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Equipment Type	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10. Soil Carbon Accumulation By Vegetation Type

4.10.1. Soil Carbon Accumulation By Vegetation Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Vegetation	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.2. Above and Belowground Carbon Accumulation by Land Use Type - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Land Use	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

4.10.3. Avoided and Sequestered Emissions by Species - Unmitigated

Criteria Pollutants (lb/day for daily, ton/yr for annual) and GHGs (lb/day for daily, MT/yr for annual)

Species	ROG	NOx	CO	SO2	PM10E	PM10D	PM10T	PM2.5E	PM2.5D	PM2.5T	BCO2	NBCO2	CO2T	CH4	N2O	R	CO2e
Daily, Summer (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Daily, Winter (Max)	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

Annual	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Avoided	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Sequestered	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Removed	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Subtotal	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

5. Activity Data

5.1. Construction Schedule

Phase Name	Phase Type	Start Date	End Date	Days Per Week	Work Days per Phase	Phase Description
Site Preparation	Site Preparation	3/1/2024	5/23/2024	5.00	60.0	—
Grading	Grading	5/24/2024	8/15/2024	5.00	60.0	—
Paving	Paving	8/16/2024	11/7/2024	5.00	60.0	—
Architectural Coating	Architectural Coating	8/16/2024	11/7/2024	5.00	60.0	—

5.2. Off-Road Equipment

5.2.1. Unmitigated

Phase Name	Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
Site Preparation	Rubber Tired Dozers	Diesel	Average	3.00	8.00	367	0.40
Site Preparation	Tractors/Loaders/Backhoes	Diesel	Average	4.00	8.00	84.0	0.37
Grading	Graders	Diesel	Average	1.00	8.00	148	0.41

Grading	Excavators	Diesel	Average	1.00	8.00	36.0	0.38
Grading	Tractors/Loaders/Backhoes	Diesel	Average	3.00	8.00	84.0	0.37
Grading	Rubber Tired Dozers	Diesel	Average	1.00	8.00	367	0.40
Paving	Pavers	Diesel	Average	2.00	8.00	81.0	0.42
Paving	Paving Equipment	Diesel	Average	2.00	8.00	89.0	0.36
Paving	Rollers	Diesel	Average	2.00	8.00	36.0	0.38
Architectural Coating	Air Compressors	Diesel	Average	1.00	6.00	37.0	0.48

5.3. Construction Vehicles

5.3.1. Unmitigated

Phase Name	Trip Type	One-Way Trips per Day	Miles per Trip	Vehicle Mix
Site Preparation	—	—	—	—
Site Preparation	Worker	17.5	12.0	LDA,LDT1,LDT2
Site Preparation	Vendor	—	7.63	HHDT,MHDT
Site Preparation	Hauling	0.00	20.0	HHDT
Site Preparation	Onsite truck	—	—	HHDT
Grading	—	—	—	—
Grading	Worker	15.0	12.0	LDA,LDT1,LDT2
Grading	Vendor	—	7.63	HHDT,MHDT
Grading	Hauling	0.00	20.0	HHDT
Grading	Onsite truck	—	—	HHDT
Paving	—	—	—	—
Paving	Worker	15.0	12.0	LDA,LDT1,LDT2
Paving	Vendor	—	7.63	HHDT,MHDT
Paving	Hauling	0.00	20.0	HHDT
Paving	Onsite truck	—	—	HHDT

Architectural Coating	—	—	—	—
Architectural Coating	Worker	0.00	12.0	LDA,LDT1,LDT2
Architectural Coating	Vendor	—	7.63	HHDT,MHDT
Architectural Coating	Hauling	0.00	20.0	HHDT
Architectural Coating	Onsite truck	—	—	HHDT

5.4. Vehicles

5.4.1. Construction Vehicle Control Strategies

Non-applicable. No control strategies activated by user.

5.5. Architectural Coatings

Phase Name	Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
Architectural Coating	0.00	0.00	750	250	19,576

5.6. Dust Mitigation

5.6.1. Construction Earthmoving Activities

Phase Name	Material Imported (cy)	Material Exported (cy)	Acres Graded (acres)	Material Demolished (sq. ft.)	Acres Paved (acres)
Site Preparation	—	—	90.0	0.00	—
Grading	—	—	60.0	0.00	—
Paving	0.00	0.00	0.00	0.00	7.49

5.6.2. Construction Earthmoving Control Strategies

Non-applicable. No control strategies activated by user.

5.7. Construction Paving

Land Use	Area Paved (acres)	% Asphalt
Unrefrigerated Warehouse-Rail	0.00	0%
Other Asphalt Surfaces	7.49	100%

5.8. Construction Electricity Consumption and Emissions Factors

kWh per Year and Emission Factor (lb/MWh)

Year	kWh per Year	CO2	CH4	N2O
2024	0.00	589	0.03	< 0.005

5.9. Operational Mobile Sources

5.9.1. Unmitigated

Land Use Type	Trips/Weekday	Trips/Saturday	Trips/Sunday	Trips/Year	VMT/Weekday	VMT/Saturday	VMT/Sunday	VMT/Year
Unrefrigerated Warehouse-Rail	42.0	42.0	42.0	15,330	309	309	309	112,715
Other Asphalt Surfaces	138	138	138	50,358	1,700	1,700	1,700	620,405

5.10. Operational Area Sources

5.10.1. Hearths

5.10.1.1. Unmitigated

5.10.2. Architectural Coatings

Residential Interior Area Coated (sq ft)	Residential Exterior Area Coated (sq ft)	Non-Residential Interior Area Coated (sq ft)	Non-Residential Exterior Area Coated (sq ft)	Parking Area Coated (sq ft)
0	0.00	750	250	19,576

5.10.3. Landscape Equipment

Season	Unit	Value
Snow Days	day/yr	0.00
Summer Days	day/yr	180

5.11. Operational Energy Consumption

5.11.1. Unmitigated

Electricity (kWh/yr) and CO2 and CH4 and N2O and Natural Gas (kBTU/yr)

Land Use	Electricity (kWh/yr)	CO2	CH4	N2O	Natural Gas (kBTU/yr)
Unrefrigerated Warehouse-Rail	2,180	589	0.0330	0.0040	0.00
Other Asphalt Surfaces	0.00	589	0.0330	0.0040	0.00

5.12. Operational Water and Wastewater Consumption

5.12.1. Unmitigated

Land Use	Indoor Water (gal/year)	Outdoor Water (gal/year)
Unrefrigerated Warehouse-Rail	115,625	0.00
Other Asphalt Surfaces	0.00	0.00

5.13. Operational Waste Generation

5.13.1. Unmitigated

Land Use	Waste (ton/year)	Cogeneration (kWh/year)
Unrefrigerated Warehouse-Rail	0.47	—
Other Asphalt Surfaces	0.00	—

5.14. Operational Refrigeration and Air Conditioning Equipment

5.14.1. Unmitigated

Land Use Type	Equipment Type	Refrigerant	GWP	Quantity (kg)	Operations Leak Rate	Service Leak Rate	Times Serviced
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5.15. Operational Off-Road Equipment

5.15.1. Unmitigated

Equipment Type	Fuel Type	Engine Tier	Number per Day	Hours Per Day	Horsepower	Load Factor
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5.16. Stationary Sources

5.16.1. Emergency Generators and Fire Pumps

Equipment Type	Fuel Type	Number per Day	Hours per Day	Hours per Year	Horsepower	Load Factor
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5.16.2. Process Boilers

Equipment Type	Fuel Type	Number	Boiler Rating (MMBtu/hr)	Daily Heat Input (MMBtu/day)	Annual Heat Input (MMBtu/yr)
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5.17. User Defined

Equipment Type	Fuel Type
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5.18. Vegetation

5.18.1. Land Use Change

5.18.1.1. Unmitigated

Vegetation Land Use Type	Vegetation Soil Type	Initial Acres	Final Acres
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5.18.1. Biomass Cover Type

5.18.1.1. Unmitigated

Biomass Cover Type	Initial Acres	Final Acres
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5.18.2. Sequestration

5.18.2.1. Unmitigated

Tree Type	Number	Electricity Saved (kWh/year)	Natural Gas Saved (btu/year)
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6. Climate Risk Detailed Report

6.1. Climate Risk Summary

Cal-Adapt midcentury 2040–2059 average projections for four hazards are reported below for your project location. These are under Representation Concentration Pathway (RCP) 8.5 which assumes GHG emissions will continue to rise strongly through 2050 and then plateau around 2100.

Climate Hazard	Result for Project Location	Unit
Temperature and Extreme Heat	8.90	annual days of extreme heat
Extreme Precipitation	1.95	annual days with precipitation above 20 mm
Sea Level Rise	—	meters of inundation depth
Wildfire	1.40	annual hectares burned

Temperature and Extreme Heat data are for grid cell in which your project are located. The projection is based on the 98th historical percentile of daily maximum/minimum temperatures from observed historical data (32 climate model ensemble from Cal-Adapt, 2040–2059 average under RCP 8.5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Extreme Precipitation data are for the grid cell in which your project are located. The threshold of 20 mm is equivalent to about ¾ an inch of rain, which would be light to moderate rainfall if received over a full day or heavy rain if received over a period of 2 to 4 hours. Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

Sea Level Rise data are for the grid cell in which your project are located. The projections are from Radke et al. (2017), as reported in Cal-Adapt (Radke et al., 2017, CEC-500-2017-008), and consider inundation location and depth for the San Francisco Bay, the Sacramento-San Joaquin River Delta and California coast resulting different increments of sea level rise coupled with extreme storm events. Users may select from four scenarios to view the range in potential inundation depth for the grid cell. The four scenarios are: No rise, 0.5 meter, 1.0 meter, 1.41 meters

Wildfire data are for the grid cell in which your project are located. The projections are from UC Davis, as reported in Cal-Adapt (2040–2059 average under RCP 8.5), and consider historical data of climate, vegetation, population density, and large (> 400 ha) fire history. Users may select from four model simulations to view the range in potential wildfire probabilities for the grid cell. The four simulations make different assumptions about expected rainfall and temperature are: Warmer/drier (HadGEM2-ES), Cooler/wetter (CNRM-CM5), Average conditions (CanESM2), Range of different rainfall and temperature possibilities (MIROC5). Each grid cell is 6 kilometers (km) by 6 km, or 3.7 miles (mi) by 3.7 mi.

6.2. Initial Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	0	0	N/A
Wildfire	1	0	0	N/A
Flooding	0	0	0	N/A
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A
Air Quality Degradation	N/A	N/A	N/A	N/A

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores do not include implementation of climate risk reduction measures.

6.3. Adjusted Climate Risk Scores

Climate Hazard	Exposure Score	Sensitivity Score	Adaptive Capacity Score	Vulnerability Score
Temperature and Extreme Heat	N/A	N/A	N/A	N/A
Extreme Precipitation	N/A	N/A	N/A	N/A
Sea Level Rise	1	1	1	2
Wildfire	1	1	1	2
Flooding	1	1	1	2
Drought	N/A	N/A	N/A	N/A
Snowpack Reduction	N/A	N/A	N/A	N/A

Air Quality Degradation	N/A	N/A	N/A	N/A
-------------------------	-----	-----	-----	-----

The sensitivity score reflects the extent to which a project would be adversely affected by exposure to a climate hazard. Exposure is rated on a scale of 1 to 5, with a score of 5 representing the greatest exposure.

The adaptive capacity of a project refers to its ability to manage and reduce vulnerabilities from projected climate hazards. Adaptive capacity is rated on a scale of 1 to 5, with a score of 5 representing the greatest ability to adapt.

The overall vulnerability scores are calculated based on the potential impacts and adaptive capacity assessments for each hazard. Scores include implementation of climate risk reduction measures.

6.4. Climate Risk Reduction Measures

7. Health and Equity Details

7.1. CalEnviroScreen 4.0 Scores

The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Exposure Indicators	—
AQ-Ozone	26.7
AQ-PM	52.4
AQ-DPM	91.0
Drinking Water	33.4
Lead Risk Housing	83.1
Pesticides	0.00
Toxic Releases	60.2
Traffic	68.2
Effect Indicators	—
CleanUp Sites	97.6
Groundwater	99.4
Haz Waste Facilities/Generators	99.4
Impaired Water Bodies	94.6
Solid Waste	96.4

Sensitive Population	—
Asthma	25.4
Cardio-vascular	14.4
Low Birth Weights	84.0
Socioeconomic Factor Indicators	—
Education	46.2
Housing	66.5
Linguistic	74.4
Poverty	68.0
Unemployment	43.1

7.2. Healthy Places Index Scores

The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

Indicator	Result for Project Census Tract
Economic	—
Above Poverty	—
Employed	—
Median HI	—
Education	—
Bachelor's or higher	—
High school enrollment	—
Preschool enrollment	—
Transportation	—
Auto Access	—
Active commuting	—
Social	—
2-parent households	—

Voting	—
Neighborhood	—
Alcohol availability	—
Park access	—
Retail density	—
Supermarket access	—
Tree canopy	—
Housing	—
Homeownership	—
Housing habitability	—
Low-inc homeowner severe housing cost burden	—
Low-inc renter severe housing cost burden	—
Uncrowded housing	—
Health Outcomes	—
Insured adults	—
Arthritis	0.0
Asthma ER Admissions	86.1
High Blood Pressure	0.0
Cancer (excluding skin)	0.0
Asthma	0.0
Coronary Heart Disease	0.0
Chronic Obstructive Pulmonary Disease	0.0
Diagnosed Diabetes	0.0
Life Expectancy at Birth	0.0
Cognitively Disabled	78.9
Physically Disabled	55.6
Heart Attack ER Admissions	43.1

Mental Health Not Good	0.0
Chronic Kidney Disease	0.0
Obesity	0.0
Pedestrian Injuries	0.0
Physical Health Not Good	0.0
Stroke	0.0
Health Risk Behaviors	—
Binge Drinking	0.0
Current Smoker	0.0
No Leisure Time for Physical Activity	0.0
Climate Change Exposures	—
Wildfire Risk	0.0
SLR Inundation Area	26.8
Children	97.4
Elderly	96.3
English Speaking	0.0
Foreign-born	0.0
Outdoor Workers	70.4
Climate Change Adaptive Capacity	—
Impervious Surface Cover	6.8
Traffic Density	0.0
Traffic Access	52.3
Other Indices	—
Hardship	0.0
Other Decision Support	—
2016 Voting	0.0

7.3. Overall Health & Equity Scores

Metric	Result for Project Census Tract
CalEnviroScreen 4.0 Score for Project Location (a)	79.0
Healthy Places Index Score for Project Location (b)	—
Project Located in a Designated Disadvantaged Community (Senate Bill 535)	Yes
Project Located in a Low-Income Community (Assembly Bill 1550)	Yes
Project Located in a Community Air Protection Program Community (Assembly Bill 617)	Portside EJ Communities

a: The maximum CalEnviroScreen score is 100. A high score (i.e., greater than 50) reflects a higher pollution burden compared to other census tracts in the state.

b: The maximum Health Places Index score is 100. A high score (i.e., greater than 50) reflects healthier community conditions compared to other census tracts in the state.

7.4. Health & Equity Measures

No Health & Equity Measures selected.

7.5. Evaluation Scorecard

Health & Equity Evaluation Scorecard not completed.

7.6. Health & Equity Custom Measures

No Health & Equity Custom Measures created.

8. User Changes to Default Data

Screen	Justification
Construction: Construction Phases	Construction expected to take 8 months. No construction of any buildings.
Operations: Vehicle Data	Trips associated with warehouse land use to account for daily employee trips. Trips associated with asphalt surface land use to account for trucking trips. Total daily trips (138 tanker truck trips + 42 passenger vehicle trips) = 168. From US Compliance data, an average of 12.32 miles per truck trip was calculated.
Operations: Fleet Mix	Operations fleet mix to reflect the heavy duty truck trips associated with the Proposed Project. Of 168 total daily trips, 138 are truck trips (HHD) and 30 are employee trips (LDA)
Operations: Energy Use	No natural gas usage

EVAPORATIVE EMISSIONS CALCULATIONS

San Diego Clean Fuels LLC
National City, CA
Site Wide Total VOC Emissions

The enclosed emission calculations are for the transloading process of liquid fuels as noted in the table below.

Liquid Fuel	Maximum Daily Loading Throughput	VOC Emissions	
	(gallons/day)	lbs/day	tons/yr
Denatured Ethanol	420,000	2.83	0.52
Aviation Fuel			
Renewable Diesel	420,000	15.27	2.79
Biodiesel	126,000	1.77	0.32
Component Leaks	-	12.41	2.26
Site Total Emissions		32.27	5.89

Notes:

[1] The emissions from denatured ethanol and/or aviation fuel are assumed the worst case as denatured ethanol

[2] AP-42 Volume I, Chapter 5, Section 5.2 Transportation and Marketing of Petroleum Liquids

San Diego Clean Fuels LLC

National City, CA

Denatured Ethanol and Sustainable Aviation Fuel (SAF) Transloading

Regulated emission releases from Denatured ethanol and Sustainable Aviation Fuels (SAF) loading are calculated using the loading formula from EPA AP-42 section 5.2 and the associated partial pressures of each of the constituents listed on the SDS. The site will load a maximum of 10,000 barrels of either material combined. Emission calculations represent the worst case scenario.

Emission Calculation Equation

$$\text{Emissions (lbs)*} = 12.46 \times \frac{S \times P \times M \times Q \times (1-VC)}{T}$$

*Reference: EPA AP-42, Section 5.2, 2008

where

		Data	
S	=	0.60	Saturation factor: Submerged loading dedicated normal service (uncontrolled)
S	=	1.00	Saturation factor: Submerged loading dedicated vapor balance (controlled)
Q	=	See below	Volume of material loaded (1,000 gal/yr)
T	=	534.67	temperature of liquid, R (75 F)
VC	=	98.7%	Vapor Collection under NSPS-Level Annual Leak Test
		Denatured EtOH	SAF ^[2]
P _{VOC}	=	See below	0.10156 Vapor Pressure of each VOC material (psia)
M _{VOC}	=	See below	170 Vapor molecular weight (lb/lb-mole)
Worst Case P*M Value		=	22.22

Denatured Ethanol									SAF
	Material Content (%)	Vapor Molecular Weight	Moles	Mole Fraction	Vapor Pressure (kPa)	Vapor Pressure (psia)	Partial Pressure (psia)	PM [Partial Pressure x MW]	PM Value
Ethanol	95	46	2.06	0.97	0.86	0.13	0.122	5.62	
Gasoline ^[1]	5	95	0.05	0.02	48.26	7.00	0.17	16.54	
Benzene	0.06	78	0.001	0.0004	12.80	1.86	0.001	0.05	
Total PM value to use in Section 5.2 formula									22.22
									17.27

[1] For gasoline, RVP7 was used for Vapor Pressure

[2] SAF is not broken down by material to calculate its PM value due to containing one constituent on the SDS

Moles = material content/MW

Mole Fraction = Moles/total Moles

1 kPa = 0.145038 psia

Partial Pressure = Mole Fraction x Vapor Pressure

Transloading from Railcars to Truck

Max Loading Rate (Total)			Q total	Emission Factor:		San Diego ACDP BACT threshold	VOC Emissions		
				Uncontrolled	Controlled ^[1]		Uncontrolled	Controlled	
(barrels/day)	(gals/day)	(gals/yr)	(1,000 gal/day)	(lbs/1000 gals)	(lbs/1000 gals)	(lbs/day)	(lbs/day)	(lbs/day)	(tons/yr)
10,000	420,000	153,300,000	420	0.311	0.007	10	130.5	2.83	0.52

[1] Emissions captured through a vapor balancing process back to the railcar are calculated at a capture efficiency of 98.7% for railcars passing the NSPS-level annual test as outlined under EPA AP-42 Section 5.2.

San Diego Clean Fuels LLC
National City, CA
Renewable Diesel Transloading

Regulated emission releases from Renewable Diesel loading are calculated using the loading formula from EPA AP-42 section 5.2 and the associated partial pressures of each of the constituents listed on the SDS.

Emission Calculation Equation

$$\text{Emissions (lbs)*} = 12.46 \times \frac{S \times P \times M \times Q}{T}$$

*Reference: EPA AP-42, Section 5.2, 2008

where			Data	
	S	=	0.60	Saturation factor: Submerged loading dedicated normal service
	P _{VOC}	=	0.013	Vapor pressure of material (psia)
	M _{VOC}	=	200	Vapor molecular weight (lb/lb-mole)
	Q	=	See below	Volume of material loaded (1,000 gal/yr)
	T	=	535	temperature of liquid, R (75 F)

Transloading from Railcars to Truck

Fuel	Max Loading Rate (Total)			Q total (1,000 gal/day)	Emission Factor: (lbs/1000 gals)	San Diego ACDP BACT threshold (lbs/day)	VOC Emissions	
	(barrels/day)	(gals/day)	(gals/yr)				(lbs/day)	(tons/yr)
Renewable Diesel	10,000	420,000	153,300,000	420	0.036	10	15.3	2.79
Additives	-	84	30,569	0.084	1.43E-06		6.02E-04	1.10E-04
				Total:	0.036		15.3	2.79

San Diego Clean Fuels LLC
National City, CA
Additives to Renewable Diesel

The additives listed in this document may be added to the permitted Renewable Diesel (RD) loading in the noted quantities. Actual regulated emissions from this process are negligible in quantity.

Additive	VOC	VOC (lbs/gal)	HAP Content		Volumes in Gallons		% of Batch (volume)	% of Batch (HAP Content)
					Volume of Additive	Load Batch		
Conductivity	0%	0.00	-	0%	84	672,000	0.01250%	0.00000%
Lubricity	5%	0.38	Triethanolamine	5%	2	672,000	0.00030%	0.00001%
Red Dye	32.60%	2.72	Xylene	35%	2	28,000	0.00714%	0.00250%
			Ethylbenzene	20%				0.00143%
Total Additives							0.01994%	0.00394%

Lubricity is to be added up to 100% of the RD loads

Conductivity is to be added up to 100% of the RD loads

Red Dye is to be added up to 50% of the RD loads

**San Diego Clean Fuels LLC
National City, CA
Bio Diesel Transloading**

Regulated emission releases from Bio Diesel loading are calculated using the loading formula from EPA AP-42 section 5.2 and the associated partial pressures of each of the constituents listed on the SDS.

Emission Calculation Equation

$$\text{Emissions (lbs)*} = 12.46 \times \frac{S \times P \times M \times Q \times (1-VC)}{T}$$

*Reference: EPA AP-42, Section 5.2, 2008

where

		Data	
S	=	0.60	Sat factor: Submerged loading dedicated normal service (uncontrolled)
P _{VOC}	=	See Below	Partial pressure of each VOC material (psia)
M _{VOC}	=	See Below	Vapor molecular weight (lb/lb-mole)
Q	=	See below	Volume of material loaded (1,000 gal/yr)
T	=	535	temperature of liquid, R (75 F)

	Material Content (%)	Vapor Molecular Weight	Moles	Mole Fraction	Vapor Pressure (kPa)	Vapor Pressure (psia)	Partial Pressure (psia)	PM [Partial Pressure x MW]
Fuels, diesel	79	200	0.40	0.83	0.039	0.006	0.00467	0.9349
Methyl Esters	20	257	0.08	0.16	0.007	0.001	0.00	0.0413
Diesel Fuel	1	200	0.01	0.01	0.087	0.013	0.00	0.0264
Total PM value to use in Section 5.2 formula								1.003

Moles = material content/MW

Mole Fraction = Moles/total Moles

1 kPa = 0.145038 psia

Partial Pressure = Mole Fraction x Vapor Pressure

Transloading from Railcars to Truck

Max Bio Diesel Loading Rate (Total)			Q total		Emission Factor:	San Diego ACDP BACT limit	VOC Emissions	
(barrels/day)	(gals/day)	(gals/yr)	(1,000 gal/day)	(1,000 gal/yr)	(lbs/1000 gals)	(lbs/day)	(lbs/day)	(tons/yr)
3,000	126,000	45,990,000	126	45,990	0.014	10	1.77	0.32

San Diego Clean Fuels LLC
National City, CA
Facility Wide Component Emissions

Source Unit		Service	Denatured Ethanol or SAF			Renewable Diesel			Biodiesel			
			Correlation Equation Factor ^[1]	Number of Components	VOC Emissions (lbs/year) ^[3]	Correlation Equation Factor ^[1]	Number of Components	VOC Emissions (lbs/year) ^[3]	Correlation Equation Factor ^[1]	Number of Components	VOC Emissions (lbs/year) ^[3]	
			500 ppm			400 ppm			300 ppm			
			(lbs/year)			(lbs/year)			(lbs/year)			
Valves	I & M Program	All	4.55	67	304.56	3.85	67	257.80	3.10	59	183.12	
Pumps	Sealless Type	Light Liquid ^[2]	46.83	2	93.65	40.76	2	81.51	34.08	2	68.16	
Connectors		All	2.86	22	62.95	2.43	22	53.42	1.96	20	39.29	
Flanges (ANSI 16.5-1988)		All	6.99	145	1013.58	5.97	145	865.84	4.87	145	706.69	
Pressure Relief Valves		All	4.55	8	36.37	3.85	8	30.78	3.10	8	24.83	
Other (fittings, hatches, sight glasses, meters)		All	9.09	30	272.69	7.88	30	236.29	6.55	30	196.44	
			VOC Emissions (lbs/day):		4.89	VOC Emissions (lbs/day):		4.18	VOC Emissions (lbs/day):		3.34	
			VOC Emissions (lbs/day)									12.41

[1] Emission Factor from correlation equations based on Screening Value (SV) as listed

[2] Liquid with a vapor pressure greater than that of kerosene (>0.1 psia @ 100 F or 689 Pa @ 38 C)

[3] VOC emission calculations and equations come from Table IV-3a of South Coast AQMD's Guidelines for Fugitive Emission Calculations

**San Diego Clean Fuels LLC
National City, CA
Vapor Collection System Background**

AP-42, Section 5.2:

According to EPA AP-42 section 5.2 "Transportation and Marketing of Petroleum Liquids", page 6; trucks passing the NSPS-level annual leak test are assumed to have a collection efficiency of 98.7% across the collection system.

Documentation:

The models of trucks being used at the new San Diego Clean Fuels LLC facility are used at a similar site by the same owner and are required to pass the NSPS-level annual leak test at this facility. Similarly, San Diego Clean Fuels will require current proof of passing this required leak test for each truck that loads at the facility. This information will be used in the facility "authorization to load" software and will only allow trucks to load who have this current test on file at the facility. These leak tests will be available to San Diego APCD if requested.

TRAIN EMISSION CALCULATIONS

San Diego Clean Fuels Facility
Mainline Rail Criteria and GHG Emissions Calculations

Table A-1. Operational Assumptions for Train Transport of Liquid Fuels			
Description	Value	Units	Source
Avg Distance in SDAB (Mainline)	65	miles	GIS Based Estimate
Ton-mile per Gallon	970	ton-mi/gal	https://www.bnsf.com/
Trips per Year	104	#/yr	Two times per week
Truck Days per year	365	days/yr	Project Information
Ethanol Transferred/Sustainable Aviation Fuel	126,000	gal/day	Project Information
Renewable Diesel Transferred	336,000	gal/day	Project Information
Biodiesel Transferred	84,000	gal/day	Project Information
Ethanol Transferred	45,990,000	gal/yr	Trucks/Day * Days/Year
Renewable Diesel Transferred	122,640,000	gal/yr	Trucks/Day * Days/Year
Biodiesel Transferred	30,660,000	gal/yr	Trucks/Day * Days/Year
Total Throughput per year	199,290,000	gal/yr	Sum of Fuels
Ethanol Density	6.8	lb/gal	Conversion Factor
Renewable Diesel Density	7.3	lb/gal	Conversion Factor
Biodiesel Density	7.3	lb/gal	Conversion Factor
Average Daily Material Transferred	1,961	tons/day	Process Information
Annual Mass Transferred	715,681	ton/year	Process Information

Table A-2. Calculated Operational Values for Locomotive Trips			
Operational Value	Value		Unit
	daily	annual	
SDAB - Ton-Miles	127,450	46,519,268	ton-miles
Gallons Fuel Used	131	47,948	gallons

Table A-3. Composite Locomotive Emission Factors from CARB Vision Access Database							
Source Type	Emission Factor (g/gal transportation fuel)						
	CO	NO_x	SO₂	ROG	PM₁₀	PM_{2.5}	CO₂
Mainline Composite	26.49	107.97	20.65	6.79	3.77	3.47	10,155

(1) Mainline composite Utilizes a composite from the latest BNSF Financial Report (BNSF, 2020)

Equations:

1. Emissions (lb/day) = Material Weight (tons/day) * Trip Distance (mi) * / (ton-miles/gallon) / 453.6 (g/lb)
2. Annual Emissions (tons/yr) = Material Weight (tons/yr) * Trip Distance (mi) * / (ton-miles/gallon) / 453.6 (g/lb)

Table A-4. Daily Emissions from Train Transport of Clean Fuels							
Air Basin	Daily Emissions (lb/day)						
	CO	NO_x	SO₂	ROG	PM₁₀	PM_{2.5}	CO₂
Mainline Composite	7.67	31.24	5.97	1.96	1.09	1.00	2,938
CEQA Threshold	550	250	250	137	100	--	

Table A-5. Annual Emissions from Train Transport of Clean Fuels							
Air Basin	Annual Emissions (tpy)						MT
	CO	NO_x	SO₂	ROG	PM₁₀	PM_{2.5}	CO₂
Mainline Composite	1.40	5.70	1.09	0.36	0.20	0.18	486
CEQA Threshold	100	40	40	15	15	--	3,000

San Diego Clean Fuels Facility
Mainline Rail Criteria and GHG Emissions Calculations

Acronyms

CO	carbon monoxide	PM	particulate matter
CO ₂	carbon dioxide	PM ₁₀	PM less than 10 microns in diameter
g	grams	PM _{2.5}	PM less than 2.5 microns in diameter
g/mi	grams per mile	ROG	Reactive Organic Gas
lb.	pound	SDAB	San Diego Bay Air Basin
mi	mile	SO ₂	sulfur dioxide
NO _x	nitrogen oxide	tpy	tons per year
PM	particulate matter		

ATTACHMENT B

Health Risk Analysis Output Files

OPERATIONAL HEALTH RISK ASSESSMENT CALCULATIONS

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	488325.77	3613186.13	40	40	50.00	50.00

Discrete Receptors

Plant Boundary Receptors

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL1	489437.73	3614063.92	5.83	3.00	1.00000	49.47		11.50	4.20
		Onsite Idle								

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME

Source: SLINE1

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
45.00	1.00000		489416.53	3614035.65	5.30	0.00
			489292.85	3614417.30	4.00	0.00

Source Type: LINE VOLUME

Source: SLINE2 (Exit to I5N)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.00	1.00000		489642.69	3614722.96	8.50	2.55
			489248.68	3614586.92	3.57	2.55
			489188.60	3613931.40	2.86	2.55
			489460.70	3614019.75	6.06	2.55

Source Type: LINE VOLUME

Source: SLINE3 (Cleveland to Entrence)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.00	1.00000		489529.61	3614664.66	6.96	0.00
			489400.63	3614560.41	5.20	0.00
			489515.48	3614150.50	6.97	0.00
			489427.13	3614109.86	5.83	0.00

Source Type: LINE VOLUME

Source: SLINE4 (Exit to W 18 St)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.00	1.00000		489474.84	3614025.05	6.17	0.00
			489549.05	3614048.02	7.03	0.00
			489515.48	3614148.73	6.97	0.00

Source Pathway - Source Inputs

AERMOD

Source Type: LINE VOLUME

Source: SLINE5 (W18 ST)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.00	1.00000		489522.54	3614154.03	7.00	0.00
			489944.83	3614286.55	13.18	0.00

Source Type: LINE VOLUME

Source: SLINE6 (CLEVELAND SOUTH to I5)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
8.00	1.00000		489554.35	3614051.55	7.05	0.00
			489708.07	3613572.73	10.70	0.00
			489817.61	3613595.70	11.90	0.00

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE1	L0000001	489409.60	3614057.05	5.47	0.00	0.11111	45.00		20.93	17.21
	L0000002	489395.72	3614099.86	5.29	0.00	0.11111	45.00		20.93	17.21
	L0000003	489381.85	3614142.67	5.11	0.00	0.11111	45.00		20.93	17.21
	L0000004	489367.98	3614185.48	4.93	0.00	0.11111	45.00		20.93	17.21
	L0000005	489354.10	3614228.29	4.76	0.00	0.11111	45.00		20.93	17.21
	L0000006	489340.23	3614271.09	4.58	0.00	0.11111	45.00		20.93	17.21
	L0000007	489326.36	3614313.90	4.40	0.00	0.11111	45.00		20.93	17.21
	L0000008	489312.48	3614356.71	4.22	0.00	0.11111	45.00		20.93	17.21
	L0000009	489298.61	3614399.52	4.04	0.00	0.11111	45.00		20.93	17.21

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000010	489638.91	3614721.66	8.39	2.55	0.01163	8.00		7.40	1.95
	L0000011	489623.86	3614716.46	8.20	2.55	0.01163	8.00		7.40	1.95
	L0000012	489608.82	3614711.27	8.01	2.55	0.01163	8.00		7.40	1.95
	L0000013	489593.77	3614706.07	7.82	2.55	0.01163	8.00		7.40	1.95
	L0000014	489578.72	3614700.88	7.62	2.55	0.01163	8.00		7.40	1.95
	L0000015	489563.67	3614695.68	7.43	2.55	0.01163	8.00		7.40	1.95
	L0000016	489548.62	3614690.48	7.24	2.55	0.01163	8.00		7.40	1.95
	L0000017	489533.58	3614685.29	7.05	2.55	0.01163	8.00		7.40	1.95
	L0000018	489518.53	3614680.09	6.85	2.55	0.01163	8.00		7.40	1.95
	L0000019	489503.48	3614674.90	6.66	2.55	0.01163	8.00		7.40	1.95
	L0000020	489488.43	3614669.70	6.47	2.55	0.01163	8.00		7.40	1.95
	L0000021	489473.38	3614664.50	6.28	2.55	0.01163	8.00		7.40	1.95
	L0000022	489458.34	3614659.31	6.08	2.55	0.01163	8.00		7.40	1.95

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000023	489443.29	3614654.11	5.89	2.55	0.01163	8.00		7.40	1.95
	L0000024	489428.24	3614648.92	5.70	2.55	0.01163	8.00		7.40	1.95
	L0000025	489413.19	3614643.72	5.51	2.55	0.01163	8.00		7.40	1.95
	L0000026	489398.14	3614638.52	5.31	2.55	0.01163	8.00		7.40	1.95
	L0000027	489383.10	3614633.33	5.12	2.55	0.01163	8.00		7.40	1.95
	L0000028	489368.05	3614628.13	4.93	2.55	0.01163	8.00		7.40	1.95
	L0000029	489353.00	3614622.94	4.74	2.55	0.01163	8.00		7.40	1.95
	L0000030	489337.95	3614617.74	4.54	2.55	0.01163	8.00		7.40	1.95
	L0000031	489322.90	3614612.54	4.35	2.55	0.01163	8.00		7.40	1.95
	L0000032	489307.86	3614607.35	4.16	2.55	0.01163	8.00		7.40	1.95
	L0000033	489292.81	3614602.15	3.97	2.55	0.01163	8.00		7.40	1.95
	L0000034	489277.76	3614596.96	3.77	2.55	0.01163	8.00		7.40	1.95
	L0000035	489262.71	3614591.76	3.58	2.55	0.01163	8.00		7.40	1.95
	L0000036	489248.58	3614585.85	3.40	2.55	0.01163	8.00		7.40	1.95
	L0000037	489247.13	3614569.99	3.38	2.55	0.01163	8.00		7.40	1.95
	L0000038	489245.68	3614554.14	3.36	2.55	0.01163	8.00		7.40	1.95
	L0000039	489244.22	3614538.29	3.35	2.55	0.01163	8.00		7.40	1.95
	L0000040	489242.77	3614522.43	3.33	2.55	0.01163	8.00		7.40	1.95
	L0000041	489241.32	3614506.58	3.31	2.55	0.01163	8.00		7.40	1.95
	L0000042	489239.86	3614490.73	3.29	2.55	0.01163	8.00		7.40	1.95
	L0000043	489238.41	3614474.87	3.27	2.55	0.01163	8.00		7.40	1.95
	L0000044	489236.96	3614459.02	3.25	2.55	0.01163	8.00		7.40	1.95
	L0000045	489235.51	3614443.17	3.24	2.55	0.01163	8.00		7.40	1.95
	L0000046	489234.05	3614427.31	3.22	2.55	0.01163	8.00		7.40	1.95
	L0000047	489232.60	3614411.46	3.20	2.55	0.01163	8.00		7.40	1.95

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000048	489231.15	3614395.61	3.18	2.55	0.01163	8.00		7.40	1.95
	L0000049	489229.69	3614379.75	3.16	2.55	0.01163	8.00		7.40	1.95
	L0000050	489228.24	3614363.90	3.14	2.55	0.01163	8.00		7.40	1.95
	L0000051	489226.79	3614348.05	3.13	2.55	0.01163	8.00		7.40	1.95
	L0000052	489225.33	3614332.19	3.11	2.55	0.01163	8.00		7.40	1.95
	L0000053	489223.88	3614316.34	3.09	2.55	0.01163	8.00		7.40	1.95
	L0000054	489222.43	3614300.49	3.07	2.55	0.01163	8.00		7.40	1.95
	L0000055	489220.98	3614284.63	3.05	2.55	0.01163	8.00		7.40	1.95
	L0000056	489219.52	3614268.78	3.03	2.55	0.01163	8.00		7.40	1.95
	L0000057	489218.07	3614252.93	3.02	2.55	0.01163	8.00		7.40	1.95
	L0000058	489216.62	3614237.07	3.00	2.55	0.01163	8.00		7.40	1.95
	L0000059	489215.16	3614221.22	2.98	2.55	0.01163	8.00		7.40	1.95
	L0000060	489213.71	3614205.37	2.96	2.55	0.01163	8.00		7.40	1.95
	L0000061	489212.26	3614189.51	2.94	2.55	0.01163	8.00		7.40	1.95
	L0000062	489210.81	3614173.66	2.92	2.55	0.01163	8.00		7.40	1.95
	L0000063	489209.35	3614157.81	2.91	2.55	0.01163	8.00		7.40	1.95
	L0000064	489207.90	3614141.95	2.89	2.55	0.01163	8.00		7.40	1.95
	L0000065	489206.45	3614126.10	2.87	2.55	0.01163	8.00		7.40	1.95
	L0000066	489204.99	3614110.25	2.85	2.55	0.01163	8.00		7.40	1.95
	L0000067	489203.54	3614094.39	2.83	2.55	0.01163	8.00		7.40	1.95
	L0000068	489202.09	3614078.54	2.81	2.55	0.01163	8.00		7.40	1.95
	L0000069	489200.64	3614062.69	2.79	2.55	0.01163	8.00		7.40	1.95
	L0000070	489199.18	3614046.83	2.78	2.55	0.01163	8.00		7.40	1.95
	L0000071	489197.73	3614030.98	2.76	2.55	0.01163	8.00		7.40	1.95
	L0000072	489196.28	3614015.13	2.74	2.55	0.01163	8.00		7.40	1.95

Source Pathway - Source Inputs

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Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000073	489194.82	3613999.27	2.72	2.55	0.01163	8.00		7.40	1.95
	L0000074	489193.37	3613983.42	2.70	2.55	0.01163	8.00		7.40	1.95
	L0000075	489191.92	3613967.57	2.68	2.55	0.01163	8.00		7.40	1.95
	L0000076	489190.47	3613951.71	2.67	2.55	0.01163	8.00		7.40	1.95
	L0000077	489189.01	3613935.86	2.65	2.55	0.01163	8.00		7.40	1.95
	L0000078	489199.49	3613934.94	2.78	2.55	0.01163	8.00		7.40	1.95
	L0000079	489214.63	3613939.85	2.98	2.55	0.01163	8.00		7.40	1.95
	L0000080	489229.77	3613944.77	3.17	2.55	0.01163	8.00		7.40	1.95
	L0000081	489244.92	3613949.69	3.36	2.55	0.01163	8.00		7.40	1.95
	L0000082	489260.06	3613954.60	3.56	2.55	0.01163	8.00		7.40	1.95
	L0000083	489275.20	3613959.52	3.75	2.55	0.01163	8.00		7.40	1.95
	L0000084	489290.34	3613964.44	3.94	2.55	0.01163	8.00		7.40	1.95
	L0000085	489305.48	3613969.35	4.14	2.55	0.01163	8.00		7.40	1.95
	L0000086	489320.62	3613974.27	4.33	2.55	0.01163	8.00		7.40	1.95
	L0000087	489335.77	3613979.18	4.53	2.55	0.01163	8.00		7.40	1.95
	L0000088	489350.91	3613984.10	4.72	2.55	0.01163	8.00		7.40	1.95
	L0000089	489366.05	3613989.02	4.91	2.55	0.01163	8.00		7.40	1.95
	L0000090	489381.19	3613993.93	5.11	2.55	0.01163	8.00		7.40	1.95
	L0000091	489396.33	3613998.85	5.30	2.55	0.01163	8.00		7.40	1.95
	L0000092	489411.47	3614003.76	5.49	2.55	0.01163	8.00		7.40	1.95
	L0000093	489426.62	3614008.68	5.69	2.55	0.01163	8.00		7.40	1.95
	L0000094	489441.76	3614013.60	5.88	2.55	0.01163	8.00		7.40	1.95
	L0000095	489456.90	3614018.51	6.08	2.55	0.01163	8.00		7.40	1.95
Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE3	L0000220	489526.50	3614662.14	6.96	0.00	0.02273	8.00		7.36	1.95
	L0000221	489514.19	3614652.19	6.80	0.00	0.02273	8.00		7.36	1.95
	L0000222	489501.87	3614642.24	6.64	0.00	0.02273	8.00		7.36	1.95
	L0000223	489489.56	3614632.29	6.48	0.00	0.02273	8.00		7.36	1.95
	L0000224	489477.25	3614622.34	6.33	0.00	0.02273	8.00		7.36	1.95
	L0000225	489464.93	3614612.38	6.17	0.00	0.02273	8.00		7.36	1.95
	L0000226	489452.62	3614602.43	6.01	0.00	0.02273	8.00		7.36	1.95
	L0000227	489440.31	3614592.48	5.85	0.00	0.02273	8.00		7.36	1.95
	L0000228	489427.99	3614582.53	5.70	0.00	0.02273	8.00		7.36	1.95
	L0000229	489415.68	3614572.58	5.54	0.00	0.02273	8.00		7.36	1.95
	L0000230	489403.37	3614562.62	5.38	0.00	0.02273	8.00		7.36	1.95
	L0000231	489403.95	3614548.56	5.39	0.00	0.02273	8.00		7.36	1.95
	L0000232	489408.22	3614533.31	5.45	0.00	0.02273	8.00		7.36	1.95
	L0000233	489412.49	3614518.07	5.50	0.00	0.02273	8.00		7.36	1.95
	L0000234	489416.77	3614502.82	5.55	0.00	0.02273	8.00		7.36	1.95
	L0000235	489421.04	3614487.58	5.61	0.00	0.02273	8.00		7.36	1.95
	L0000236	489425.31	3614472.33	5.66	0.00	0.02273	8.00		7.36	1.95
	L0000237	489429.58	3614457.09	5.72	0.00	0.02273	8.00		7.36	1.95
	L0000238	489433.85	3614441.84	5.77	0.00	0.02273	8.00		7.36	1.95
	L0000239	489438.12	3614426.60	5.83	0.00	0.02273	8.00		7.36	1.95
	L0000240	489442.39	3614411.35	5.88	0.00	0.02273	8.00		7.36	1.95
	L0000241	489446.66	3614396.10	5.94	0.00	0.02273	8.00		7.36	1.95
	L0000242	489450.94	3614380.86	5.99	0.00	0.02273	8.00		7.36	1.95
	L0000243	489455.21	3614365.61	6.05	0.00	0.02273	8.00		7.36	1.95
	L0000244	489459.48	3614350.37	6.10	0.00	0.02273	8.00		7.36	1.95

Source Pathway - Source Inputs

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Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE3	L0000245	489463.75	3614335.12	6.16	0.00	0.02273	8.00		7.36	1.95
	L0000246	489468.02	3614319.88	6.21	0.00	0.02273	8.00		7.36	1.95
	L0000247	489472.29	3614304.63	6.27	0.00	0.02273	8.00		7.36	1.95
	L0000248	489476.56	3614289.39	6.32	0.00	0.02273	8.00		7.36	1.95
	L0000249	489480.83	3614274.14	6.38	0.00	0.02273	8.00		7.36	1.95
	L0000250	489485.11	3614258.90	6.43	0.00	0.02273	8.00		7.36	1.95
	L0000251	489489.38	3614243.65	6.49	0.00	0.02273	8.00		7.36	1.95
	L0000252	489493.65	3614228.41	6.54	0.00	0.02273	8.00		7.36	1.95
	L0000253	489497.92	3614213.16	6.60	0.00	0.02273	8.00		7.36	1.95
	L0000254	489502.19	3614197.92	6.65	0.00	0.02273	8.00		7.36	1.95
	L0000255	489506.46	3614182.67	6.71	0.00	0.02273	8.00		7.36	1.95
	L0000256	489510.73	3614167.43	6.76	0.00	0.02273	8.00		7.36	1.95
	L0000257	489515.00	3614152.18	6.82	0.00	0.02273	8.00		7.36	1.95
	L0000258	489502.68	3614144.61	6.66	0.00	0.02273	8.00		7.36	1.95
	L0000259	489488.30	3614138.00	6.48	0.00	0.02273	8.00		7.36	1.95
	L0000260	489473.92	3614131.38	6.29	0.00	0.02273	8.00		7.36	1.95
	L0000261	489459.53	3614124.76	6.11	0.00	0.02273	8.00		7.36	1.95
	L0000262	489445.15	3614118.15	5.92	0.00	0.02273	8.00		7.36	1.95
	L0000263	489430.77	3614111.53	5.74	0.00	0.02273	8.00		7.36	1.95
Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0000350	489478.66	3614026.23	6.35	0.00	0.08333	8.00		7.44	1.95
	L0000351	489493.93	3614030.96	6.55	0.00	0.08333	8.00		7.44	1.95
	L0000352	489509.20	3614035.68	6.74	0.00	0.08333	8.00		7.44	1.95
	L0000353	489524.47	3614040.41	6.94	0.00	0.08333	8.00		7.44	1.95

Source Pathway - Source Inputs

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Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE4	L0000354	489539.74	3614045.14	7.13	0.00	0.08333	8.00		7.44	1.95
	L0000355	489547.07	3614053.94	7.23	0.00	0.08333	8.00		7.44	1.95
	L0000356	489542.02	3614069.11	7.16	0.00	0.08333	8.00		7.44	1.95
	L0000357	489536.96	3614084.27	7.10	0.00	0.08333	8.00		7.44	1.95
	L0000358	489531.91	3614099.44	7.03	0.00	0.08333	8.00		7.44	1.95
	L0000359	489526.85	3614114.60	6.97	0.00	0.08333	8.00		7.44	1.95
	L0000360	489521.80	3614129.77	6.90	0.00	0.08333	8.00		7.44	1.95
	L0000361	489516.74	3614144.94	6.84	0.00	0.08333	8.00		7.44	1.95

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE5	L0000362	489526.36	3614155.23	6.96	0.00	0.03448	8.00		7.22	1.95
	L0000363	489541.17	3614159.88	7.15	0.00	0.03448	8.00		7.22	1.95
	L0000364	489555.98	3614164.52	7.34	0.00	0.03448	8.00		7.22	1.95
	L0000365	489570.79	3614169.17	7.53	0.00	0.03448	8.00		7.22	1.95
	L0000366	489585.60	3614173.82	7.72	0.00	0.03448	8.00		7.22	1.95
	L0000367	489600.41	3614178.46	7.91	0.00	0.03448	8.00		7.22	1.95
	L0000368	489615.21	3614183.11	8.10	0.00	0.03448	8.00		7.22	1.95
	L0000369	489630.02	3614187.76	8.29	0.00	0.03448	8.00		7.22	1.95
	L0000370	489644.83	3614192.41	8.48	0.00	0.03448	8.00		7.22	1.95
	L0000371	489659.64	3614197.05	8.67	0.00	0.03448	8.00		7.22	1.95
	L0000372	489674.45	3614201.70	8.86	0.00	0.03448	8.00		7.22	1.95
	L0000373	489689.26	3614206.35	9.07	0.00	0.03448	8.00		7.22	1.95
	L0000374	489704.07	3614210.99	9.33	0.00	0.03448	8.00		7.22	1.95
	L0000375	489718.88	3614215.64	9.57	0.00	0.03448	8.00		7.22	1.95
	L0000376	489733.69	3614220.29	9.80	0.00	0.03448	8.00		7.22	1.95

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE5	L0000377	489748.50	3614224.94	10.00	0.00	0.03448	8.00		7.22	1.95
	L0000378	489763.30	3614229.58	10.19	0.00	0.03448	8.00		7.22	1.95
	L0000379	489778.11	3614234.23	10.48	0.00	0.03448	8.00		7.22	1.95
	L0000380	489792.92	3614238.88	10.80	0.00	0.03448	8.00		7.22	1.95
	L0000381	489807.73	3614243.52	11.14	0.00	0.03448	8.00		7.22	1.95
	L0000382	489822.54	3614248.17	11.50	0.00	0.03448	8.00		7.22	1.95
	L0000383	489837.35	3614252.82	11.83	0.00	0.03448	8.00		7.22	1.95
	L0000384	489852.16	3614257.47	12.02	0.00	0.03448	8.00		7.22	1.95
	L0000385	489866.97	3614262.11	12.16	0.00	0.03448	8.00		7.22	1.95
	L0000386	489881.78	3614266.76	12.30	0.00	0.03448	8.00		7.22	1.95
	L0000387	489896.58	3614271.41	12.44	0.00	0.03448	8.00		7.22	1.95
	L0000388	489911.39	3614276.05	12.58	0.00	0.03448	8.00		7.22	1.95
	L0000389	489926.20	3614280.70	12.72	0.00	0.03448	8.00		7.22	1.95
	L0000390	489941.01	3614285.35	12.85	0.00	0.03448	8.00		7.22	1.95

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE6	L0000391	489555.57	3614047.74	7.34	0.00	0.02564	8.00		7.43	1.95
	L0000392	489560.45	3614032.54	7.40	0.00	0.02564	8.00		7.43	1.95
	L0000393	489565.33	3614017.33	7.46	0.00	0.02564	8.00		7.43	1.95
	L0000394	489570.21	3614002.13	7.53	0.00	0.02564	8.00		7.43	1.95
	L0000395	489575.10	3613986.92	7.59	0.00	0.02564	8.00		7.43	1.95
	L0000396	489579.98	3613971.72	7.65	0.00	0.02564	8.00		7.43	1.95
	L0000397	489584.86	3613956.52	7.71	0.00	0.02564	8.00		7.43	1.95
	L0000398	489589.74	3613941.31	7.78	0.00	0.02564	8.00		7.43	1.95
	L0000399	489594.62	3613926.11	7.84	0.00	0.02564	8.00		7.43	1.95

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE6	L0000400	489599.50	3613910.90	7.90	0.00	0.02564	8.00		7.43	1.95
	L0000401	489604.38	3613895.70	7.96	0.00	0.02564	8.00		7.43	1.95
	L0000402	489609.26	3613880.49	8.03	0.00	0.02564	8.00		7.43	1.95
	L0000403	489614.15	3613865.29	8.10	0.00	0.02564	8.00		7.43	1.95
	L0000404	489619.03	3613850.08	8.20	0.00	0.02564	8.00		7.43	1.95
	L0000405	489623.91	3613834.88	8.32	0.00	0.02564	8.00		7.43	1.95
	L0000406	489628.79	3613819.67	8.45	0.00	0.02564	8.00		7.43	1.95
	L0000407	489633.67	3613804.47	8.61	0.00	0.02564	8.00		7.43	1.95
	L0000408	489638.55	3613789.26	8.79	0.00	0.02564	8.00		7.43	1.95
	L0000409	489643.43	3613774.06	8.93	0.00	0.02564	8.00		7.43	1.95
	L0000410	489648.31	3613758.85	9.06	0.00	0.02564	8.00		7.43	1.95
	L0000411	489653.20	3613743.65	9.18	0.00	0.02564	8.00		7.43	1.95
	L0000412	489658.08	3613728.44	9.31	0.00	0.02564	8.00		7.43	1.95
	L0000413	489662.96	3613713.24	9.43	0.00	0.02564	8.00		7.43	1.95
	L0000414	489667.84	3613698.04	9.56	0.00	0.02564	8.00		7.43	1.95
	L0000415	489672.72	3613682.83	9.70	0.00	0.02564	8.00		7.43	1.95
	L0000416	489677.60	3613667.63	9.83	0.00	0.02564	8.00		7.43	1.95
	L0000417	489682.48	3613652.42	9.95	0.00	0.02564	8.00		7.43	1.95
	L0000418	489687.36	3613637.22	10.03	0.00	0.02564	8.00		7.43	1.95
	L0000419	489692.24	3613622.01	10.09	0.00	0.02564	8.00		7.43	1.95
	L0000420	489697.13	3613606.81	10.15	0.00	0.02564	8.00		7.43	1.95
	L0000421	489702.01	3613591.60	10.22	0.00	0.02564	8.00		7.43	1.95
	L0000422	489706.89	3613576.40	10.28	0.00	0.02564	8.00		7.43	1.95
	L0000423	489719.92	3613575.21	10.45	0.00	0.02564	8.00		7.43	1.95
	L0000424	489735.55	3613578.49	10.65	0.00	0.02564	8.00		7.43	1.95

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE6	L0000425	489751.18	3613581.77	10.85	0.00	0.02564	8.00		7.43	1.95
	L0000426	489766.81	3613585.05	11.05	0.00	0.02564	8.00		7.43	1.95
	L0000427	489782.44	3613588.32	11.25	0.00	0.02564	8.00		7.43	1.95
	L0000428	489798.07	3613591.60	11.45	0.00	0.02564	8.00		7.43	1.95
	L0000429	489813.70	3613594.88	11.65	0.00	0.02564	8.00		7.43	1.95

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: ..\PES_2010_2012_sigma_v19191.SFC

Format Type: Default AERMET format

Profile Met Data

Filename: ..\PES_2010_2012_sigma_v19191.PFL

Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 4.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2010			SAN DIEGO/LINDBERGH FIELD
Upper Air		2010			
On-Site		2010			

Data Period

Data Period to Process

Start Date: 1/1/2010

Start Hour: 1

End Date: 12/31/2012

End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Source Pathway - Source Inputs

AERMOD

Volume Sources

Source Type	Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation (Optional)	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dim. [m]	Initial Vertical Dim. [m]
VOLUME	VOL2	489384.90	3614154.63	4.80	1.50	1.00000	13.00		3.02	1.86
		Fuel Transfer Volume Source								
VOLUME	VOL3	489400.28	3614108.51	4.89	1.50	1.00000	13.00		3.02	1.86
		Fuel Transfer Volume Source								
VOLUME	VOL4	489416.67	3614063.42	5.47	1.50	1.00000	13.00		3.02	1.86
		Fuel Transfer Volume Source								

Source Pathway

AERMOD

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor: 1E6
Emission Unit Label: GRAMS/SEC
Concentration Unit Label: MICROGRAMS/M**3

Source Groups

Source Group ID: VOL4	List of Sources in Group (Source Range or Single Sources)
	VOL4
Source Group ID: VOL3	List of Sources in Group (Source Range or Single Sources)
	VOL3
Source Group ID: VOL2	List of Sources in Group (Source Range or Single Sources)
	VOL2
Source Group ID: ALL	List of Sources in Group (Source Range or Single Sources)
	All Sources Included

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	488325.77	3613186.13	40	40	50.00	50.00

Discrete Receptors

Plant Boundary Receptors

Results Summary

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UNITIZED - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	11783.84105	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	10/13/2011, 21
PERIOD		2476.72796	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	

UNITIZED - Concentration - Source Group: VOL2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	6339.52725	ug/m^3	489375.77	3614186.13	4.50	0.00	4.50	1/26/2012, 23
PERIOD		1637.73417	ug/m^3	489375.77	3614136.13	4.60	0.00	4.60	

UNITIZED - Concentration - Source Group: VOL3

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	5665.98728	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	12/10/2010, 7
PERIOD		758.36747	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	

UNITIZED - Concentration - Source Group: VOL4

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	10209.56162	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	10/13/2011, 21
PERIOD		1561.64647	ug/m^3	489425.77	3614086.13	5.20	0.00	5.20	

San Diego Clean Fuels Facility
Offsite Truck Emission Calculations

Table B-1. Modeled Roadway Dimensions

Roadway Link Description ¹	AERMOD ID	Length (miles)	Width (m)	Area (m ²)
Exit to I5N	SLINE2	0.85	7.4	10,075
I5 to Entrance	SLINE3	0.43	7.4	5,098
Exit to W 18th St	SLINE4	0.11	7.4	1,310
18th Street	SLINE5	0.28	7.4	3,297
Cleveland South to I5	SLINE6	0.38	7.4	4,570

(1) Onsite emissions accounted for in Onsite Idling Calculations

Table B-2. Total Trip Information

Trip Type	Trips
Average Daily Trips ¹	138

(1) Average Daily Truck trips are one way.

Table B-3. Vehicle EMFAC2021 Emission Rates

Vehicle Type	DPM Emission Rates ¹ (g/mi)				
	Idle ²	5 mph	10 mph	35 mph	Composite
HHDT	0.017	0.015	0.013	0.008	0.010

(1) EMFAC2021 PM10 2023 exhaust emission factors for San Diego County Heavy Duty Trucks.

(2) Idle emission rates in grams per hour as generated in EMFAC.

(3) Composite factor is 80% @ 35 mph + 5% @ 10 mph + 15% @ 5 mph + 1 minute idle per 10 miles

Table B-4. Modeled Roadway Trip Information

Roadway Link	Trip Information		
	Percentage Total Trips	Peak Hourly	Average Daily
Exit to I5N	87%	10.9	120.1
I5 to Entrance	87%	10.9	120.1
Exit to W 18th St	13%	1.6	17.9
18th Street	3%	0.4	4.1
Cleveland South to I5	10%	1.3	13.8

**San Diego Clean Fuels Facility
Offsite Truck Emission Calculations**

Table B-5. Calculated Emissions from Offsite Truck Traffic

	Emissions	
	Peak Hourly (lbs/hr)	Annual (lbs/yr)
Roadway Link		
Exit to I5N	0.09	0.98
I5 to Entrance	0.04	0.49
Exit to W 18th St	0.0017	0.019
18th Street	0.001	0.01
Cleveland South to I5	0.00	0.05

San Diego Clean Fuels Facility
Onsite Truck Emission Calculations

Table B-6. Calculated Emissions for Onsite Truck Activities

On-Site Idle Emissions	Composite Emission Factor (g/hour)	Idling Time (min)	Daily Trucks	Peak Hourly (lbs/hr)	Annual (lbs/yr)
Project Trucks	0.017	20	69	0.0001	0.31
Total Onsite				0.0001	0.31

Source: EMFAC2021. PM10 Emission Factors are derived from the Year 2023 Heavy-Duty Trucks

San Diego Clean Fuels Facility
Switching Activity Emissions Calculations

Table B-7. Modeled Switching Area Dimensions

Source Description	AERMOD ID	Length (miles)	Width (m)	Area (m ²)
Switching Line Volume Source	SLINE1	0.11	20	3,541

(1) All rail activity modeled as a line volume source of 20 meter width.

Table B-8. Activity Information

Trip Type	Hours
Average Daily Switching Activity	0.5

Table B-9. Vehicle EMFAC2021 Emission Rates

Engine Type	DPM Emission Rates ¹ (g/hr)				
	Idle	Breaking	1	2	Composite
Switching Engine	31.0	56.0	23.0	76.0	30.4

(1) Source: SAN DIEGO TAC EMISSIONS INVENTORY (Environ from BNSF, 2008)

Composite EF = mode 1 * .8 + mode 2 * .1 + Idle * .05 + Breaking * .05

Equations

Hourly Emissions (lbs/hr) = Hours per Day * Composite DPM ER (g/hr) / 454 (g/lb)

Annual Emissions (lbs/yr) = Hourly Emissions (lbs/hr) * 365 (days/yr) * 30 min / 60 min/hr

Table B-9. Calculated Emissions from Switching Activities

Source Description	Emissions	
	Peak Hourly (lbs/hr)	Annual (lbs/yr)
Switching Line Volume Source	0.03	6.1

San Diego Clean Fuels Facility
Fuel Transfer Toxic Air Contaminant Speciations and Emissions

Diesel Residual

1 % of RD/BD VOC emissions conservatively representing potential diesel residual: 0.29 lb/day

Table B-10. Diesel Fuel Speciation (Air Force 2021 Guidance Document) and Calculated Emissions

CAS	Pollutant	Wt (%)	lb/day	lb/yr	lb/hr
120-12-7	Anthracene	5.76E-08	1.70E-10	6.19E-08	1.70E-11
71-43-2	Benzene	1.94E-01	5.71E-04	2.08E-01	5.71E-05
132-64-9	Dibenzofuran	1.26E-04	3.71E-07	1.35E-04	3.71E-08
100-41-4	Ethyl Benzene	3.10E-01	9.13E-04	3.33E-01	9.13E-05
86-73-7	Fluorene	5.48E-05	1.61E-07	5.89E-05	1.61E-08
110-54-3	Hexane	3.91E-02	1.15E-04	4.20E-02	1.15E-05
91-20-3	Naphthalene	2.15E-01	6.33E-04	2.31E-01	6.33E-05
85-01-8	Phenanthrene	1.21E-05	3.56E-08	1.30E-05	3.56E-09
129-00-0	Pyrene	5.06E-07	1.49E-09	5.44E-07	1.49E-10
108-88-3	Toluene	2.19E+00	6.45E-03	2.35E+00	6.45E-04
1330-20-7	Xylenes	6.06E+00	1.78E-02	6.51E+00	1.78E-03

Jet Fuel Residual

1 % of Aviation Fuel/Ethanol VOC emissions representing potential Jet-A residual: 0.03 lb/day

Table B-11. JP-8/Jet A Speciation (Air Force 2021 Guidance Document) and Calculated Emissions

CAS	Pollutant	Wt (%)	lb/day	lb/yr	lb/hr
71-43-2	Benzene	1.550	4.39E-04	1.60E-01	4.39E-05
98-82-8	Cumene (Isopropylbenzene)	0.381	1.08E-04	3.94E-02	1.08E-05
100-41-4	Ethyl Benzene	0.716	2.03E-04	7.40E-02	2.03E-05
86-73-7	Fluorene	0.000	3.42E-10	1.25E-07	3.42E-11
540-84-1	2,2,4-Trimethyl Pentane	0.002	5.66E-07	2.07E-04	5.66E-08
91-20-3	Naphthalene	0.032	9.06E-06	3.31E-03	9.06E-07
92-52-4	Phenylbenzene (1,1'-biphenyl)	0.001	2.20E-07	8.05E-05	2.20E-08
129-00-0	Pyrene	0.000	9.37E-15	3.42E-12	9.37E-16
108-88-3	Toluene	2.830	8.01E-04	2.92E-01	8.01E-05
1330-20-7	Xylenes	4.690	1.33E-03	4.84E-01	1.33E-04

1 % of Aviation Fuel/Ethanol VOC emissions representing potential Jet-A residual: 2.83 lb/day

Table B-12. Ethanol Speciation (up to 5% gasoline) and Calculated Emissions

CAS	Pollutant	Wt (%)	lb/day	lb/yr	lb/hr
71-43-2	Benzene	0.060	1.70E-05	6.20E-03	1.70E-06
100-41-4	Ethyl Benzene	0.065	1.83E-05	6.66E-03	1.83E-06
110-54-3	Hexane	0.095	2.67E-05	9.76E-03	2.67E-06
91-20-3	Naphthalene	0.009	2.46E-06	8.99E-04	2.46E-07
115-07-1	Propylene (propene)	0.00001	1.73E-09	6.30E-07	1.73E-10
108-88-3	Toluene	0.282	7.97E-05	2.91E-02	7.97E-06
1330-20-7	Xylenes	0.330	9.32E-05	3.40E-02	9.32E-06

San Diego Clean Fuels Facility
Fuel Transfer Toxic Air Contaminant Speciations and Emissions

Table B-13. Total Potential Onsite Emissions assuming 1% petroleum residual and "Worst Case" Ethanol

CAS	Pollutant	Total Emissions		Emissions/ Source	
		lb/yr	lb/hr	lb/yr	lb/hr
120-12-7	Anthracene	6.19E-08	1.70E-11	2.06E-08	5.65E-12
71-43-2	Benzene	3.75E-01	1.03E-04	1.25E-01	3.42E-05
98-82-8	Cumene (Isopropylbenzene)	3.94E-02	1.08E-05	1.31E-02	3.59E-06
132-64-9	Dibenzofuran	1.35E-04	3.71E-08	4.51E-05	1.24E-08
100-41-4	Ethyl Benzene	4.14E-01	1.13E-04	1.38E-01	3.78E-05
86-73-7	Fluorene	5.90E-05	1.62E-08	1.97E-05	5.39E-09
110-54-3	Hexane	5.18E-02	1.42E-05	1.73E-02	4.73E-06
540-84-1	2,2,4-Trimethyl Pentane	2.07E-04	5.66E-08	6.89E-05	1.89E-08
91-20-3	Naphthalene	2.35E-01	6.44E-05	7.84E-02	2.15E-05
85-01-8	Phenanthrene	1.30E-05	3.56E-09	4.33E-06	1.19E-09
92-52-4	Phenylbenzene (1,1'-biphenyl)	8.05E-05	2.20E-08	2.68E-05	7.35E-09
115-07-1	Propylene (propene)	6.30E-07	1.73E-10	2.10E-07	5.75E-11
129-00-0	Pyrene	5.44E-07	1.49E-10	1.81E-07	4.97E-11
108-88-3	Toluene	2.67E+00	7.33E-04	8.92E-01	2.44E-04
1330-20-7	Xylenes	7.03E+00	1.93E-03	2.34E+00	6.42E-04

San Diego Clean Fuels Facility
Switching Activity Emissions Calculations

Table B-14. Operational Assumptions for Train Transport of Liquid Fuels			
Description	Value	Units	Source
Avg Distance in SDAB (Mainline)	0.9	miles	AERMOD Run
Ton-mile per Gallon	970	ton-mi/gal	https://www.bnsf.com/
Trips per Year	104	#/yr	Two times per week
Truck Days per year	365	days/yr	Project Information
Ethanol Transferred/Sustainable Aviation Fuel	126,000	gal/day	Project Information
Renewable Diesel Transferred	336,000	gal/day	Project Information
Biodiesel Transferred	84,000	gal/day	Project Information
Ethanol Transferred	45,990,000	gal/yr	Trucks/Day * Days/Year
Renewable Diesel Transferred	122,640,000	gal/yr	Trucks/Day * Days/Year
Biodiesel Transferred	30,660,000	gal/yr	Trucks/Day * Days/Year
Total Fuel Throughput per year	199,290,000	gal/yr	Sum of Fuels
Ethanol Density	6.8	lb/gal	Conversion Factor
Renewable Diesel Density	7.3	lb/gal	Conversion Factor
Biodiesel Density	7.3	lb/gal	Conversion Factor
Average Daily Material Transferred	1,961	tons/day	Process Information
Annual Mass Transferred	715,681	ton/year	Process Information

Table B-15. Calculated Operational Values for Locomotive Trips			
Operational Value	Value		Unit
	daily	annual	
Ton-Miles	1,765	644,113	ton-miles
Gallons Fuel Used	2	664	gallons

Table B-16. Composite Locomotive Emission Factors from CARB Vision Access Database							
Source Type	Emission Factor (g/gal transportation fuel)						
					DPM		
Mainline Composite					3.77		

(1) Mainline composite Utilizes a composite from the latest BNSF Financial Report (BNSF, 2020)

Equations:

1. Emissions (lb/day) = Material Weight (tons/day) * Trip Distance (mi) * / (ton-miles/gallon) / 453.6 (g/lb)
2. Annual Emissions (tons/yr) = Material Weight (tons/yr) * Trip Distance (mi) * / (ton-miles/gallon) / 453.6 (g/lb)

Table B-17. Daily Emissions from Train Transport of Clean Fuels							
Air Basin	Daily Emissions (lb/hr)						
					DPM		
Mainline Composite	-	-	-	-	0.002	-	-

Table B-18. Annual Emissions from Train Transport of Clean Fuels							
Air Basin	Annual Emissions (tpy)						
					DPM		
Mainline Composite	-	-	-	-	5.52	-	-

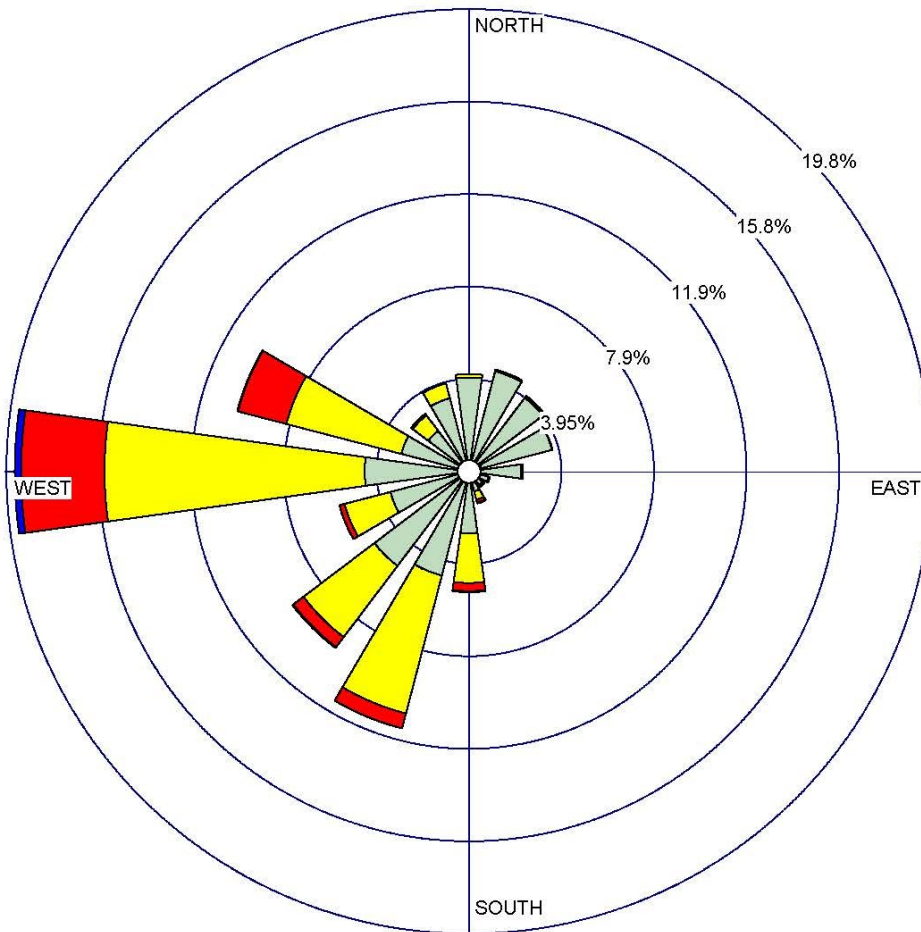
San Diego Clean Fuels Facility
Switching Activity Emissions Calculations

Acronyms

DPM	Diesel Particulate Matter	PM _{2.5}	PM less than 2.5 microns in diameter
g	grams	ROG	Reactive Organic Gas
g/mi	grams per mile	SDAB	San Diego Bay Air Basin
lb.	pound		
mi	mile		
PM	particulate matter		

WIND ROSE PLOT:
Perkins Elementary School

DISPLAY:
Wind Speed
Direction (blowing from)



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 10.03%

COMMENTS:
AERMET Processed Data

DATA PERIOD:
Start Date: 1/1/2010 - 00:00
End Date: 12/31/2012 - 23:59

COMPANY NAME:

MODELER:

CALM WINDS:
10.03%

TOTAL COUNT:
26302 hrs.

AVG. WIND SPEED:
1.91 m/s

DATE:
6/17/2022

PROJECT NO.:
2021-285

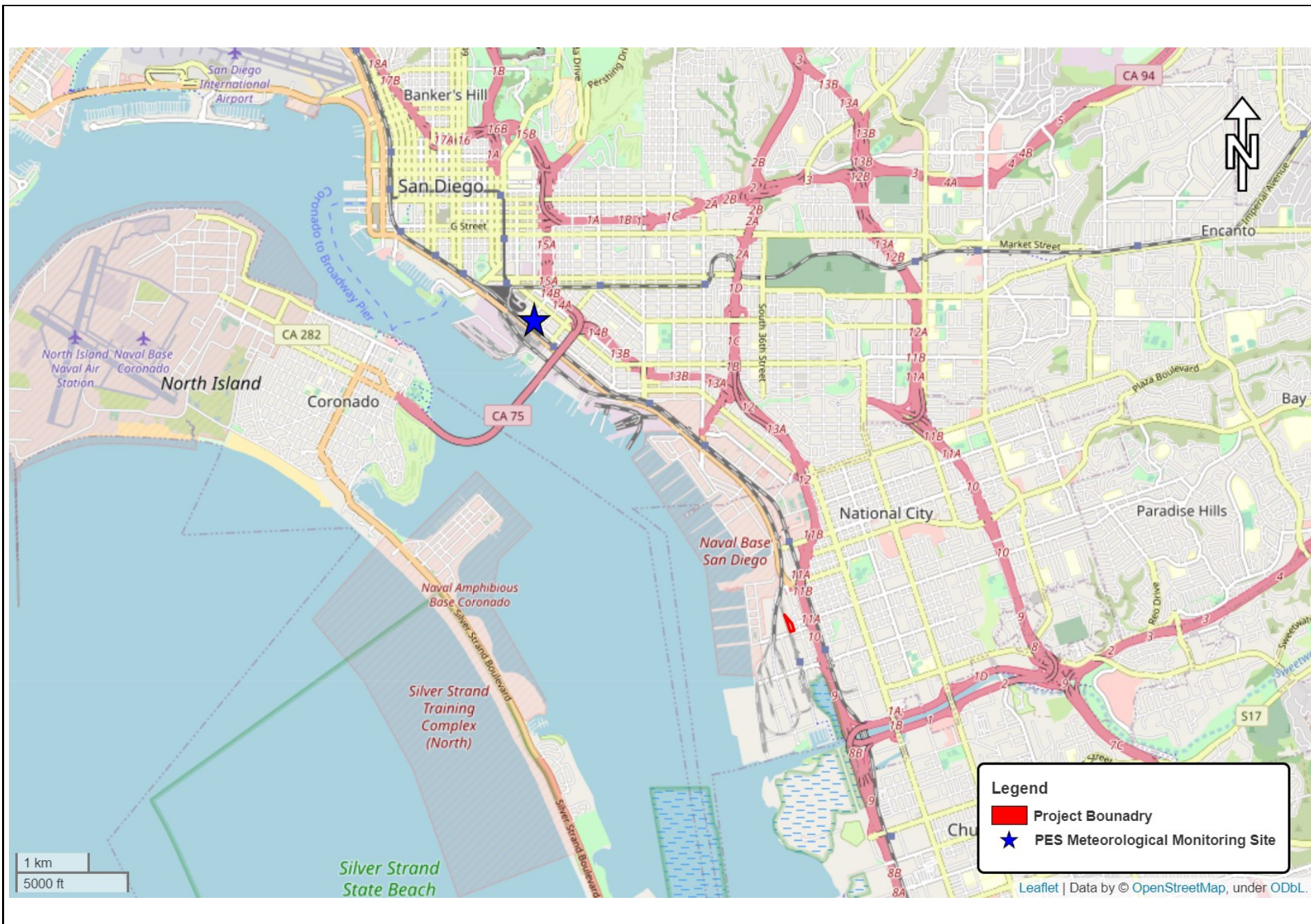
WDDLOT-Vision - Latest Environmental Software



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

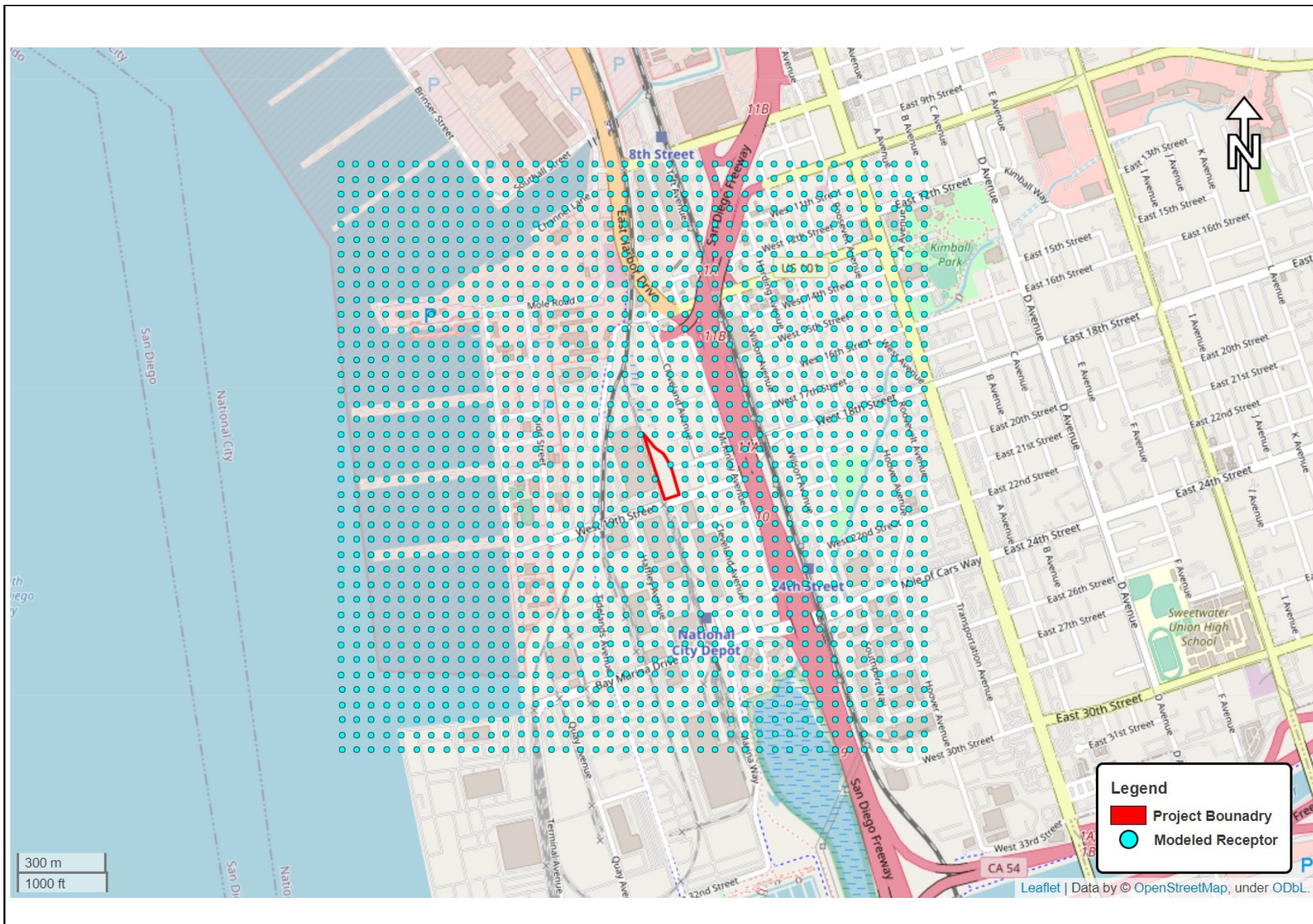
Figure B-1. PES Wind Rose (SDAPCD Data)

2021-285 San Diego Clean Fuels Terminal



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure B-2. Surface Station Location
2021-285 San Diego Clean Fuels Terminal



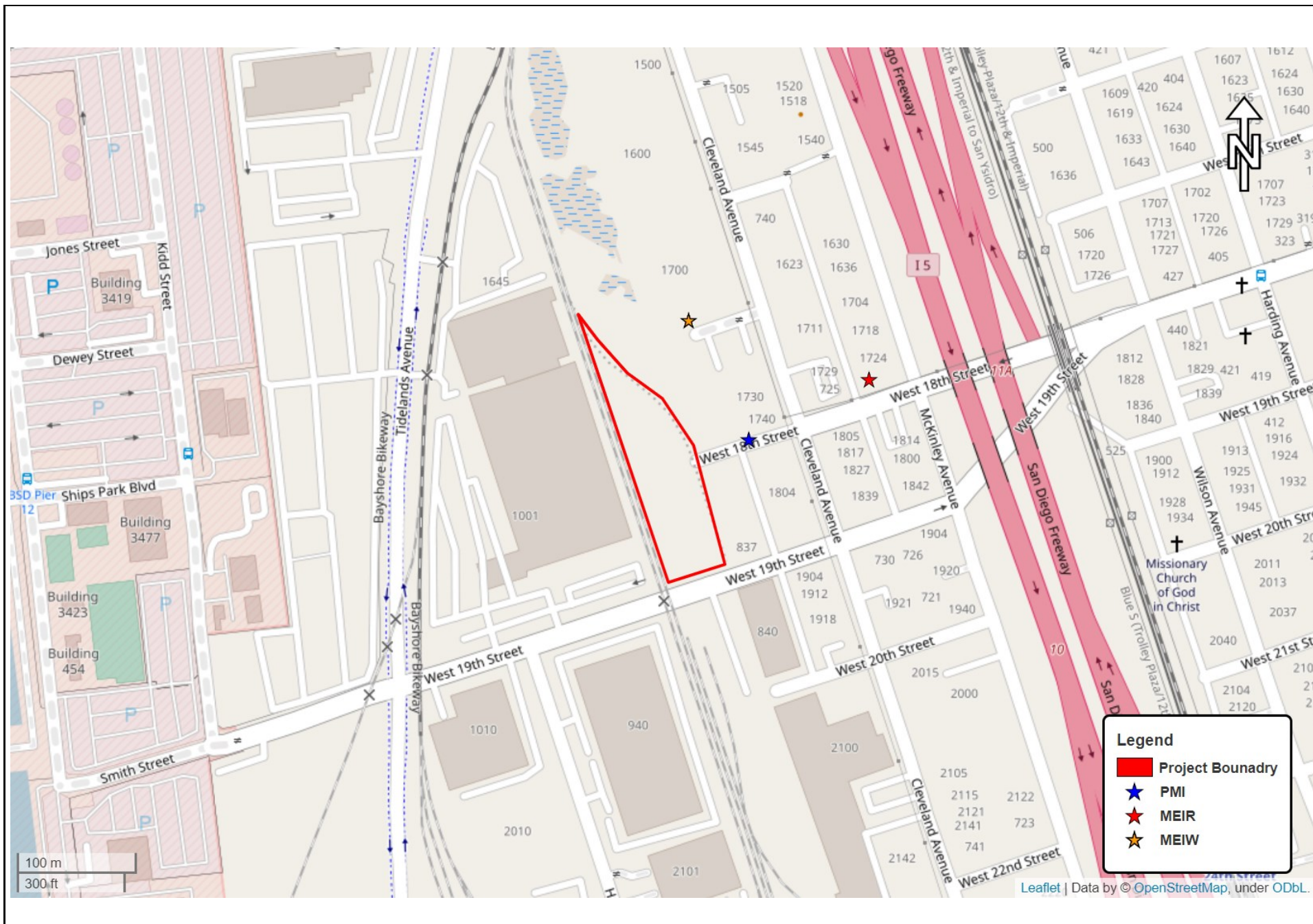


Figure B-4. PMI, MEIR, MEIW Locations
 2021-285 San Diego Clean Fuels Terminal



CONSTRUCTION HEALTH RISK ASSESSMENT CALCULATIONS

Receptor Pathway

AERMOD

Receptor Networks

Note: Terrain Elevations and Flagpole Heights for Network Grids are in Page RE2 - 1 (If applicable)
Generated Discrete Receptors for Multi-Tier (Risk) Grid and Receptor Locations for Fenceline Grid are in Page RE3 - 1 (If applicable)

Uniform Cartesian Grid

Receptor Network ID	Grid Origin X Coordinate [m]	Grid Origin Y Coordinate [m]	No. of X-Axis Receptors	No. of Y-Axis Receptors	Spacing for X-Axis [m]	Spacing for Y-Axis [m]
UCART1	488805.30	3613564.90	21	21	75.00	75.00

Discrete Receptors

Plant Boundary Receptors

Cartesian Plant Boundary

Primary

Record Number	X-Coordinate [m]	Y-Coordinate [m]	Group Name (Optional)	Terrain Elevations	Flagpole Heights [m] (Optional)
1	489288.46	3614756.22	FENCEPRI	2.84	
2	489263.38	3614425.54	FENCEPRI	2.88	
3	489393.37	3614019.61	FENCEPRI	4.77	
4	489493.71	3614051.54	FENCEPRI	5.52	
5	489452.66	3614158.73	FENCEPRI	5.22	
6	489409.33	3614181.53	FENCEPRI	4.65	
7	489299.87	3614564.66	FENCEPRI	3.47	
8	489311.27	3614744.82	FENCEPRI	3.18	

Receptor Groups

Record Number	Group ID	Group Description
1	FENCEPRI	Cartesian plant boundary Primary Receptors

Source Pathway - Source Inputs

AERMOD

Line Volume Sources

Source Type: LINE VOLUME

Source: SLINE1 (Construction equipment)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		489299.87	3614731.13	2.96	0.00
			489279.34	3614427.82	2.62	0.00
			489407.05	3614037.86	5.50	0.00
			489475.46	3614062.94	5.49	0.00
			489443.54	3614156.44	5.24	0.00
			489395.65	3614174.69	4.80	0.00
			489295.30	3614546.41	2.69	0.00

Source Type: LINE VOLUME

Source: SLINE2 (Haul)

Length of Side [m]	Emission Rate [g/ s]	Building Height [m]	X Coordinate for Points [m]	Y Coordinate for points [m]	Base Elevation [m]	Release Height [m]
6.00	1.00000		489465.10	3614132.77	5.13	0.00
			489515.66	3614147.22	5.13	0.00
			489357.37	3614626.33	2.84	0.00
			489448.59	3614654.40	3.45	0.00
			489447.71	3614655.28	3.45	0.00

Source Pathway - Source Inputs

AERMOD

Volume Sources Generated from Line Sources

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE1	L0000001	489299.66	3614728.14	3.05	0.00	0.00901	6.00		5.57	0.79
	L0000002	489298.85	3614716.20	3.02	0.00	0.00901	6.00		5.57	0.79
	L0000003	489298.05	3614704.26	3.01	0.00	0.00901	6.00		5.57	0.79
	L0000004	489297.24	3614692.32	2.97	0.00	0.00901	6.00		5.57	0.79
	L0000005	489296.43	3614680.38	2.88	0.00	0.00901	6.00		5.57	0.79
	L0000006	489295.62	3614668.44	2.81	0.00	0.00901	6.00		5.57	0.79
	L0000007	489294.82	3614656.51	2.73	0.00	0.00901	6.00		5.57	0.79
	L0000008	489294.01	3614644.57	2.77	0.00	0.00901	6.00		5.57	0.79
	L0000009	489293.20	3614632.63	2.97	0.00	0.00901	6.00		5.57	0.79
	L0000010	489292.39	3614620.69	3.02	0.00	0.00901	6.00		5.57	0.79
	L0000011	489291.58	3614608.75	3.10	0.00	0.00901	6.00		5.57	0.79
	L0000012	489290.78	3614596.81	3.21	0.00	0.00901	6.00		5.57	0.79
	L0000013	489289.97	3614584.87	3.04	0.00	0.00901	6.00		5.57	0.79
	L0000014	489289.16	3614572.93	2.94	0.00	0.00901	6.00		5.57	0.79
	L0000015	489288.35	3614560.99	2.95	0.00	0.00901	6.00		5.57	0.79
	L0000016	489287.54	3614549.05	2.95	0.00	0.00901	6.00		5.57	0.79
	L0000017	489286.74	3614537.12	2.83	0.00	0.00901	6.00		5.57	0.79
	L0000018	489285.93	3614525.18	2.50	0.00	0.00901	6.00		5.57	0.79
	L0000019	489285.12	3614513.24	2.63	0.00	0.00901	6.00		5.57	0.79
	L0000020	489284.31	3614501.30	2.75	0.00	0.00901	6.00		5.57	0.79
	L0000021	489283.50	3614489.36	2.80	0.00	0.00901	6.00		5.57	0.79
	L0000022	489282.70	3614477.42	2.76	0.00	0.00901	6.00		5.57	0.79
	L0000023	489281.89	3614465.48	2.76	0.00	0.00901	6.00		5.57	0.79
	L0000024	489281.08	3614453.54	2.58	0.00	0.00901	6.00		5.57	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE1	L0000025	489280.27	3614441.60	2.60	0.00	0.00901	6.00		5.57	0.79
	L0000026	489279.47	3614429.66	2.64	0.00	0.00901	6.00		5.57	0.79
	L0000027	489282.49	3614418.20	2.62	0.00	0.00901	6.00		5.57	0.79
	L0000028	489286.22	3614406.83	2.61	0.00	0.00901	6.00		5.57	0.79
	L0000029	489289.94	3614395.46	2.79	0.00	0.00901	6.00		5.57	0.79
	L0000030	489293.66	3614384.09	2.71	0.00	0.00901	6.00		5.57	0.79
	L0000031	489297.39	3614372.72	2.63	0.00	0.00901	6.00		5.57	0.79
	L0000032	489301.11	3614361.34	2.71	0.00	0.00901	6.00		5.57	0.79
	L0000033	489304.84	3614349.97	2.52	0.00	0.00901	6.00		5.57	0.79
	L0000034	489308.56	3614338.60	2.57	0.00	0.00901	6.00		5.57	0.79
	L0000035	489312.28	3614327.23	2.73	0.00	0.00901	6.00		5.57	0.79
	L0000036	489316.01	3614315.86	2.63	0.00	0.00901	6.00		5.57	0.79
	L0000037	489319.73	3614304.48	3.16	0.00	0.00901	6.00		5.57	0.79
	L0000038	489323.46	3614293.11	3.06	0.00	0.00901	6.00		5.57	0.79
	L0000039	489327.18	3614281.74	3.34	0.00	0.00901	6.00		5.57	0.79
	L0000040	489330.91	3614270.37	3.29	0.00	0.00901	6.00		5.57	0.79
	L0000041	489334.63	3614259.00	3.60	0.00	0.00901	6.00		5.57	0.79
	L0000042	489338.35	3614247.62	3.36	0.00	0.00901	6.00		5.57	0.79
	L0000043	489342.08	3614236.25	3.66	0.00	0.00901	6.00		5.57	0.79
	L0000044	489345.80	3614224.88	3.95	0.00	0.00901	6.00		5.57	0.79
	L0000045	489349.53	3614213.51	4.16	0.00	0.00901	6.00		5.57	0.79
	L0000046	489353.25	3614202.14	4.28	0.00	0.00901	6.00		5.57	0.79
	L0000047	489356.97	3614190.76	4.35	0.00	0.00901	6.00		5.57	0.79
	L0000048	489360.70	3614179.39	4.43	0.00	0.00901	6.00		5.57	0.79
	L0000049	489364.42	3614168.02	4.58	0.00	0.00901	6.00		5.57	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE1	L0000050	489368.15	3614156.65	4.43	0.00	0.00901	6.00		5.57	0.79
	L0000051	489371.87	3614145.28	4.52	0.00	0.00901	6.00		5.57	0.79
	L0000052	489375.60	3614133.90	4.57	0.00	0.00901	6.00		5.57	0.79
	L0000053	489379.32	3614122.53	4.71	0.00	0.00901	6.00		5.57	0.79
	L0000054	489383.04	3614111.16	4.76	0.00	0.00901	6.00		5.57	0.79
	L0000055	489386.77	3614099.79	4.96	0.00	0.00901	6.00		5.57	0.79
	L0000056	489390.49	3614088.42	5.30	0.00	0.00901	6.00		5.57	0.79
	L0000057	489394.22	3614077.04	5.69	0.00	0.00901	6.00		5.57	0.79
	L0000058	489397.94	3614065.67	5.18	0.00	0.00901	6.00		5.57	0.79
	L0000059	489401.66	3614054.30	5.16	0.00	0.00901	6.00		5.57	0.79
	L0000060	489405.39	3614042.93	5.30	0.00	0.00901	6.00		5.57	0.79
	L0000061	489413.28	3614040.14	5.97	0.00	0.00901	6.00		5.57	0.79
	L0000062	489424.51	3614044.26	5.38	0.00	0.00901	6.00		5.57	0.79
	L0000063	489435.74	3614048.38	5.25	0.00	0.00901	6.00		5.57	0.79
	L0000064	489446.98	3614052.50	5.18	0.00	0.00901	6.00		5.57	0.79
	L0000065	489458.21	3614056.62	5.48	0.00	0.00901	6.00		5.57	0.79
	L0000066	489469.45	3614060.74	5.55	0.00	0.00901	6.00		5.57	0.79
	L0000067	489473.67	3614068.21	5.48	0.00	0.00901	6.00		5.57	0.79
	L0000068	489469.80	3614079.53	5.47	0.00	0.00901	6.00		5.57	0.79
	L0000069	489465.93	3614090.85	5.41	0.00	0.00901	6.00		5.57	0.79
	L0000070	489462.07	3614102.18	5.31	0.00	0.00901	6.00		5.57	0.79
	L0000071	489458.20	3614113.50	5.19	0.00	0.00901	6.00		5.57	0.79
	L0000072	489454.33	3614124.83	5.12	0.00	0.00901	6.00		5.57	0.79
	L0000073	489450.47	3614136.15	5.34	0.00	0.00901	6.00		5.57	0.79
	L0000074	489446.60	3614147.48	5.32	0.00	0.00901	6.00		5.57	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE1	L0000075	489441.21	3614157.33	5.16	0.00	0.00901	6.00		5.57	0.79
	L0000076	489430.03	3614161.59	4.76	0.00	0.00901	6.00		5.57	0.79
	L0000077	489418.85	3614165.85	4.71	0.00	0.00901	6.00		5.57	0.79
	L0000078	489407.66	3614170.11	4.69	0.00	0.00901	6.00		5.57	0.79
	L0000079	489396.48	3614174.37	4.64	0.00	0.00901	6.00		5.57	0.79
	L0000080	489392.76	3614185.38	4.34	0.00	0.00901	6.00		5.57	0.79
	L0000081	489389.64	3614196.93	4.07	0.00	0.00901	6.00		5.57	0.79
	L0000082	489386.52	3614208.48	3.98	0.00	0.00901	6.00		5.57	0.79
	L0000083	489383.41	3614220.04	3.46	0.00	0.00901	6.00		5.57	0.79
	L0000084	489380.29	3614231.59	3.16	0.00	0.00901	6.00		5.57	0.79
	L0000085	489377.17	3614243.14	3.03	0.00	0.00901	6.00		5.57	0.79
	L0000086	489374.05	3614254.70	2.51	0.00	0.00901	6.00		5.57	0.79
	L0000087	489370.93	3614266.25	2.70	0.00	0.00901	6.00		5.57	0.79
	L0000088	489367.81	3614277.80	2.80	0.00	0.00901	6.00		5.57	0.79
	L0000089	489364.69	3614289.35	2.84	0.00	0.00901	6.00		5.57	0.79
	L0000090	489361.58	3614300.91	2.55	0.00	0.00901	6.00		5.57	0.79
	L0000091	489358.46	3614312.46	2.20	0.00	0.00901	6.00		5.57	0.79
	L0000092	489355.34	3614324.01	2.36	0.00	0.00901	6.00		5.57	0.79
	L0000093	489352.22	3614335.56	2.97	0.00	0.00901	6.00		5.57	0.79
	L0000094	489349.10	3614347.12	2.92	0.00	0.00901	6.00		5.57	0.79
	L0000095	489345.98	3614358.67	2.98	0.00	0.00901	6.00		5.57	0.79
	L0000096	489342.86	3614370.22	3.42	0.00	0.00901	6.00		5.57	0.79
	L0000097	489339.75	3614381.78	3.02	0.00	0.00901	6.00		5.57	0.79
	L0000098	489336.63	3614393.33	2.93	0.00	0.00901	6.00		5.57	0.79
	L0000099	489333.51	3614404.88	2.71	0.00	0.00901	6.00		5.57	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE1	L0000100	489330.39	3614416.43	2.60	0.00	0.00901	6.00		5.57	0.79
	L0000101	489327.27	3614427.99	2.62	0.00	0.00901	6.00		5.57	0.79
	L0000102	489324.15	3614439.54	2.62	0.00	0.00901	6.00		5.57	0.79
	L0000103	489321.03	3614451.09	2.70	0.00	0.00901	6.00		5.57	0.79
	L0000104	489317.92	3614462.65	2.61	0.00	0.00901	6.00		5.57	0.79
	L0000105	489314.80	3614474.20	2.55	0.00	0.00901	6.00		5.57	0.79
	L0000106	489311.68	3614485.75	2.52	0.00	0.00901	6.00		5.57	0.79
	L0000107	489308.56	3614497.30	2.83	0.00	0.00901	6.00		5.57	0.79
	L0000108	489305.44	3614508.86	2.53	0.00	0.00901	6.00		5.57	0.79
	L0000109	489302.32	3614520.41	2.43	0.00	0.00901	6.00		5.57	0.79
	L0000110	489299.20	3614531.96	2.49	0.00	0.00901	6.00		5.57	0.79
	L0000111	489296.09	3614543.51	2.75	0.00	0.00901	6.00		5.57	0.79

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimencion [m]	Initial Vertical Dimencion [m]
SLINE2	L0000112	489467.98	3614133.59	5.11	0.00	0.01818	6.00		5.58	0.79
	L0000113	489479.52	3614136.89	5.03	0.00	0.01818	6.00		5.58	0.79
	L0000114	489491.05	3614140.19	5.12	0.00	0.01818	6.00		5.58	0.79
	L0000115	489502.59	3614143.48	5.01	0.00	0.01818	6.00		5.58	0.79
	L0000116	489514.13	3614146.78	5.07	0.00	0.01818	6.00		5.58	0.79
	L0000117	489512.40	3614157.09	5.01	0.00	0.01818	6.00		5.58	0.79
	L0000118	489508.63	3614168.48	4.97	0.00	0.01818	6.00		5.58	0.79
	L0000119	489504.87	3614179.88	4.84	0.00	0.01818	6.00		5.58	0.79
	L0000120	489501.11	3614191.27	4.82	0.00	0.01818	6.00		5.58	0.79
	L0000121	489497.34	3614202.66	4.76	0.00	0.01818	6.00		5.58	0.79
	L0000122	489493.58	3614214.05	4.66	0.00	0.01818	6.00		5.58	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE2	L0000123	489489.82	3614225.44	4.61	0.00	0.01818	6.00		5.58	0.79
	L0000124	489486.05	3614236.83	4.44	0.00	0.01818	6.00		5.58	0.79
	L0000125	489482.29	3614248.23	4.40	0.00	0.01818	6.00		5.58	0.79
	L0000126	489478.53	3614259.62	4.32	0.00	0.01818	6.00		5.58	0.79
	L0000127	489474.76	3614271.01	4.27	0.00	0.01818	6.00		5.58	0.79
	L0000128	489471.00	3614282.40	4.14	0.00	0.01818	6.00		5.58	0.79
	L0000129	489467.23	3614293.79	3.99	0.00	0.01818	6.00		5.58	0.79
	L0000130	489463.47	3614305.18	3.98	0.00	0.01818	6.00		5.58	0.79
	L0000131	489459.71	3614316.58	3.85	0.00	0.01818	6.00		5.58	0.79
	L0000132	489455.94	3614327.97	3.81	0.00	0.01818	6.00		5.58	0.79
	L0000133	489452.18	3614339.36	3.74	0.00	0.01818	6.00		5.58	0.79
	L0000134	489448.42	3614350.75	3.70	0.00	0.01818	6.00		5.58	0.79
	L0000135	489444.65	3614362.14	3.65	0.00	0.01818	6.00		5.58	0.79
	L0000136	489440.89	3614373.53	3.60	0.00	0.01818	6.00		5.58	0.79
	L0000137	489437.12	3614384.93	3.60	0.00	0.01818	6.00		5.58	0.79
	L0000138	489433.36	3614396.32	3.50	0.00	0.01818	6.00		5.58	0.79
	L0000139	489429.60	3614407.71	3.50	0.00	0.01818	6.00		5.58	0.79
	L0000140	489425.83	3614419.10	3.39	0.00	0.01818	6.00		5.58	0.79
	L0000141	489422.07	3614430.49	3.40	0.00	0.01818	6.00		5.58	0.79
	L0000142	489418.31	3614441.88	3.38	0.00	0.01818	6.00		5.58	0.79
	L0000143	489414.54	3614453.28	3.30	0.00	0.01818	6.00		5.58	0.79
	L0000144	489410.78	3614464.67	3.29	0.00	0.01818	6.00		5.58	0.79
	L0000145	489407.01	3614476.06	3.23	0.00	0.01818	6.00		5.58	0.79
	L0000146	489403.25	3614487.45	3.22	0.00	0.01818	6.00		5.58	0.79
	L0000147	489399.49	3614498.84	3.10	0.00	0.01818	6.00		5.58	0.79

Source Pathway - Source Inputs

AERMOD

Line Source ID	Volume Source ID	X Coordinate [m]	Y Coordinate [m]	Base Elevation [m]	Release Height [m]	Emission Rate [g/s]	Length of Side [m]	Building Height [m]	Initial Lateral Dimension [m]	Initial Vertical Dimension [m]
SLINE2	L0000148	489395.72	3614510.24	3.13	0.00	0.01818	6.00		5.58	0.79
	L0000149	489391.96	3614521.63	3.08	0.00	0.01818	6.00		5.58	0.79
	L0000150	489388.20	3614533.02	3.04	0.00	0.01818	6.00		5.58	0.79
	L0000151	489384.43	3614544.41	3.01	0.00	0.01818	6.00		5.58	0.79
	L0000152	489380.67	3614555.80	2.93	0.00	0.01818	6.00		5.58	0.79
	L0000153	489376.91	3614567.19	2.93	0.00	0.01818	6.00		5.58	0.79
	L0000154	489373.14	3614578.59	2.87	0.00	0.01818	6.00		5.58	0.79
	L0000155	489369.38	3614589.98	2.87	0.00	0.01818	6.00		5.58	0.79
	L0000156	489365.61	3614601.37	2.73	0.00	0.01818	6.00		5.58	0.79
	L0000157	489361.85	3614612.76	2.88	0.00	0.01818	6.00		5.58	0.79
	L0000158	489358.09	3614624.15	2.87	0.00	0.01818	6.00		5.58	0.79
	L0000159	489366.64	3614629.19	2.85	0.00	0.01818	6.00		5.58	0.79
	L0000160	489378.10	3614632.71	2.88	0.00	0.01818	6.00		5.58	0.79
	L0000161	489389.57	3614636.24	2.96	0.00	0.01818	6.00		5.58	0.79
	L0000162	489401.04	3614639.77	2.97	0.00	0.01818	6.00		5.58	0.79
	L0000163	489412.50	3614643.30	3.23	0.00	0.01818	6.00		5.58	0.79
	L0000164	489423.97	3614646.83	3.42	0.00	0.01818	6.00		5.58	0.79
	L0000165	489435.44	3614650.36	3.44	0.00	0.01818	6.00		5.58	0.79
	L0000166	489446.91	3614653.88	3.43	0.00	0.01818	6.00		5.58	0.79

Meteorology Pathway

AERMOD

Met Input Data

Surface Met Data

Filename: C:\Users\smyers\Desktop\Met Data files\Perkins Elementary School - National City\PES_2010_2012_sigma_
Format Type: Default AERMET format

Profile Met Data

Filename: C:\Users\smyers\Desktop\Met Data files\Perkins Elementary School - National City\PES_2010_2012_sigma_
Format Type: Default AERMET format

Wind Speed



Wind Speeds are Vector Mean (Not Scalar Means)

Wind Direction

Rotation Adjustment [deg]:

Potential Temperature Profile

Base Elevation above MSL (for Primary Met Tower): 10.00 [m]

Meteorological Station Data

Stations	Station No.	Year	X Coordinate [m]	Y Coordinate [m]	Station Name
Surface		2010			SAN DIEGO/LINDBERGH FIELD
Upper Air		2010			
On-Site		2010			

Data Period

Data Period to Process

Start Date: 1/1/2010 Start Hour: 1 End Date: 12/31/2012 End Hour: 24

Wind Speed Categories

Stability Category	Wind Speed [m/s]	Stability Category	Wind Speed [m/s]
A	1.54	D	8.23
B	3.09	E	10.8
C	5.14	F	No Upper Bound

Source Pathway

AERMOD

Building Downwash Information

Option not in use

Emission Rate Units for Output

For Concentration

Unit Factor: 1E6
Emission Unit Label: GRAMS/SEC
Concentration Unit Label: MICROGRAMS/M**3

Source Groups

Source Group ID: SLINE2	List of Sources in Group (Source Range or Single Sources)
	SLINE2
Source Group ID: SLINE1	List of Sources in Group (Source Range or Single Sources)
	SLINE1
Source Group ID: ALL	List of Sources in Group (Source Range or Single Sources)
	All Sources Included

Results Summary

C:\Lakes\AERMOD View\San Diego Clean Fuels Terminal LLC Project\San

PM10 - Concentration - Source Group: ALL

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	1191.40347	ug/m^3	489405.30	3614464.90	3.20	0.00	3.20	11/17/2012, 19
24-HR	1ST	436.16962	ug/m^3	489405.30	3614539.90	3.00	0.00	3.00	1/22/2011, 24
ANNUAL		291.37200	ug/m^3	489405.30	3614539.90	3.00	0.00	3.00	

PM10 - Concentration - Source Group: SLINE1

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	738.59712	ug/m^3	489299.87	3614564.66	3.47	0.00	3.47	10/2/2012, 21
24-HR	1ST	358.59589	ug/m^3	489330.30	3614314.90	2.20	0.00	2.20	1/22/2011, 24
ANNUAL		239.32727	ug/m^3	489330.30	3614314.90	2.20	0.00	2.20	

PM10 - Concentration - Source Group: SLINE2

Averaging Period	Rank	Peak	Units	X (m)	Y (m)	ZELEV (m)	ZFLAG (m)	ZHILL (m)	Peak Date, Start Hour
1-HR	1ST	1166.02205	ug/m^3	489405.30	3614464.90	3.20	0.00	3.20	11/17/2012, 19
24-HR	1ST	378.66920	ug/m^3	489405.30	3614539.90	3.00	0.00	3.00	1/22/2011, 24
ANNUAL		252.98225	ug/m^3	489405.30	3614539.90	3.00	0.00	3.00	

**Fremont Clean Fuels Terminal
Construction Emission Calculations**

Table B-19. Modeled Roadway Dimensions

Roadway Link Description	AERMOD ID	Length (miles)	Width (m)	Area (m ²)
Onsite	SLINE1	0.82	3.7	4,882.74
18th St to Cleveland Ave to Civic Cener Drive	SLINE2	0.40	3.7	2,381.82

Notes: All roadways modeled with standard 3.7 meter width per lane.

Table B-20. Total Haul and Vendor Trip Information

Trip Type	Trips/Day
Duty Trucks (Vendor and Hauling)	15

Note: Construction trips taken from the phase with the highest vendor (building construction) and hauling (grading/site preparation) truck trips.

Table B-21. Modeled Roadway Trip Information

Roadway Link	Truck Trips		
	Percentage Total Trips	Hourly	Average Daily
18th St to Cleveland Ave to Civic Cener Drive	100%	1.9	15
Onsite	100%	1.9	15

Notes: Offsite truck travel assumed from the Project's Transportation Analysis

Table B-22. Onroad DPM Emission Rates

Vehicle Type	DPM Emission Rates ¹ (g/mi)					
	Idle ²	5 mph	15 mph	35 mph	Onsite Composite ⁴	Offsite Composite ⁵
HHDT	0.017	0.015	0.001	0.008	0.004	0.008
Composite ³	0.017	0.015	0.001	0.008	0.004	0.008

(1) EMFAC2021 PM10 2023 exhaust emission factors for San Diego County Heavy Duty Trucks.

(2) Idle emission rates in grams per minute.

(3) Vender diesel vehicle fleet mix estimated at 100% HHDT

(4) Onsite Composite factor is 85% @ 15 mph + 15% @ 5 mph + 1 minute idle per mile

(5) Offsite Composite factor is 80% @ 45 mph + 10% @ 15 mph + 10% @ 5 mph + .1 minute idle per mile

**Fremont Clean Fuels Terminal
Construction Emission Calculations**

Table B-23. Modeled Roadway Emission Rates

Roadway Link	DPM Emissions^{1,2}	
	Peak Hourly (lbs/hr)	Annual (lbs/yr)
18th St to Cleveland Ave to Civic Cener Drive	0.0000	0.0120
Onsite	0.0000	0.0247

(1) Peak Hourly Emissions = DPM Emission Rate (g/mi) * Peak Hourly Trips * Link Length (mi) / 453.6 (g/lb)

(2) Annual Emissions = DPM Emission Rate (g/mi) * Daily Trips * Link Length (mi) * 365 (days/yr) / 453.6 (g/lb)

**Fremont Clean Fuels Terminal
Construction Emission Calculations**

TableB-24. Construction Phase Information

Phase Name	Start Date	End Date
Site Preperation	3/1/2024	5/23/2024
Grading	5/24/2024	8/15/2024
Paving	8/16/2024	11/7/2024
Architectural Coating	8/16/2024	11/7/2024

Source: CalEEMod

Table B-25. Construction Offroad Equipment List

Phase Name	Equipment Type	Amount	Usage Hours	Load
Site Preparation	Rubber Tired Dozers	3	8	0.4
Site Preparation	Tractors/Loaders/Backhoes	4	8	0.37
Grading	Graders	1	8	0.41
Grading	Excavators	1	8	0.38
Grading	Tractors/Loaders/Backhoes	3	8	0.37
Grading	Rubber Tired Dozers	1	8	0.4
Paving	Pavers	2	8	0.42
Paving	Paving Equipment	2	8	0.36
Paving	Rollers	2	8	0.38
Architectural Coating	Air Compressors	1	6	0.48

Source: CalEEMod - Annual Onsite Construction Equipment

**Fremont Clean Fuels Terminal
Construction Emission Calculations**

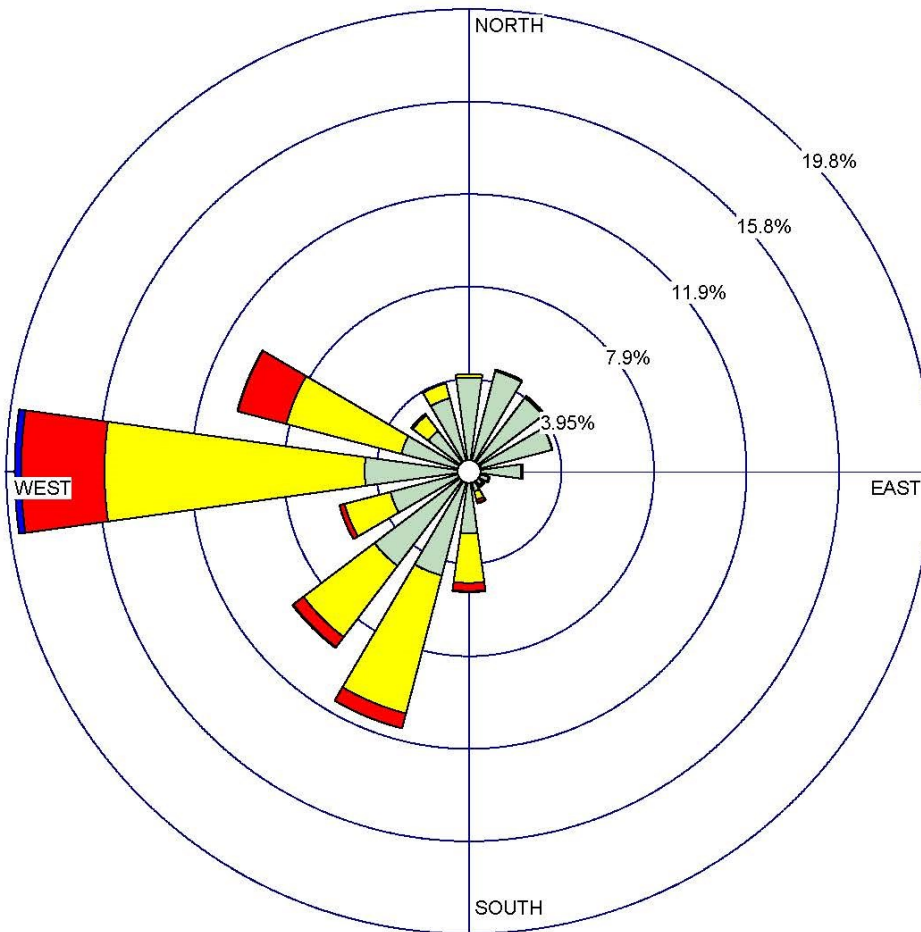
Table B-26. Annual Onsite Offroad DPM Exhaust Construction Emissions by Phase

Phase	Emissions (tons/yr)	
	2024	Total (tons)
Site Preparation	0.0500	0.0500
Grading	0.0300	0.0300
Paving	0.0100	0.0100
Architectural Coating	0.0050	0.0050
Annual DPM Emissions	0.1513	0.1513

Source: CalEEMod - Annual onsite PM10 exhaust total emissions

WIND ROSE PLOT:
Perkins Elementary School

DISPLAY:
Wind Speed
Direction (blowing from)



WIND SPEED
(m/s)

- >= 11.10
- 8.80 - 11.10
- 5.70 - 8.80
- 3.60 - 5.70
- 2.10 - 3.60
- 0.50 - 2.10

Calms: 10.03%

COMMENTS:
AERMET Processed Data

DATA PERIOD:
Start Date: 1/1/2010 - 00:00
End Date: 12/31/2012 - 23:59

COMPANY NAME:

MODELER:

CALM WINDS:
10.03%

TOTAL COUNT:
26302 hrs.

AVG. WIND SPEED:
1.91 m/s

DATE:
6/17/2022

PROJECT NO.:
2021-285

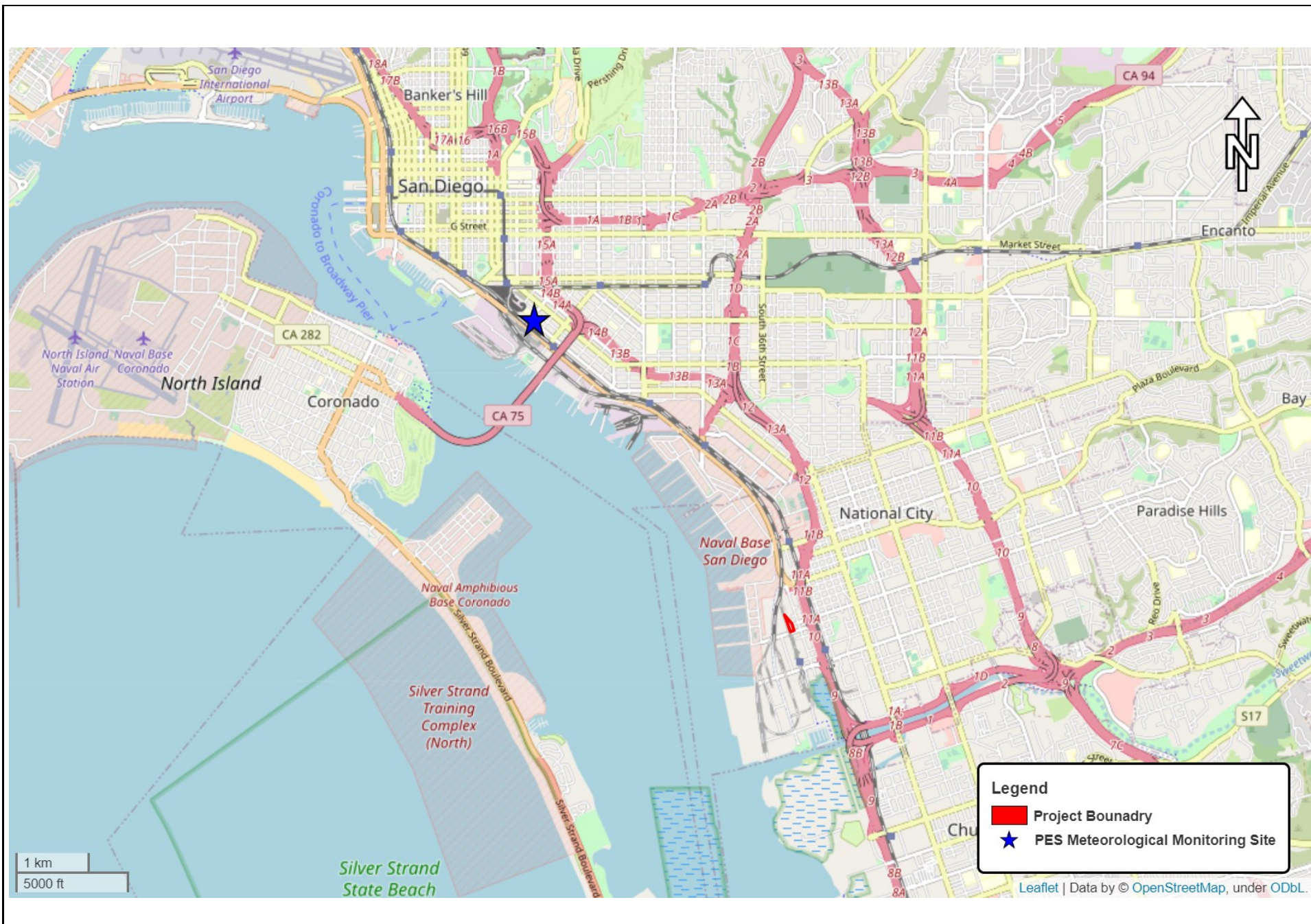
WDDLOT-View - Lohman Environmental Software



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

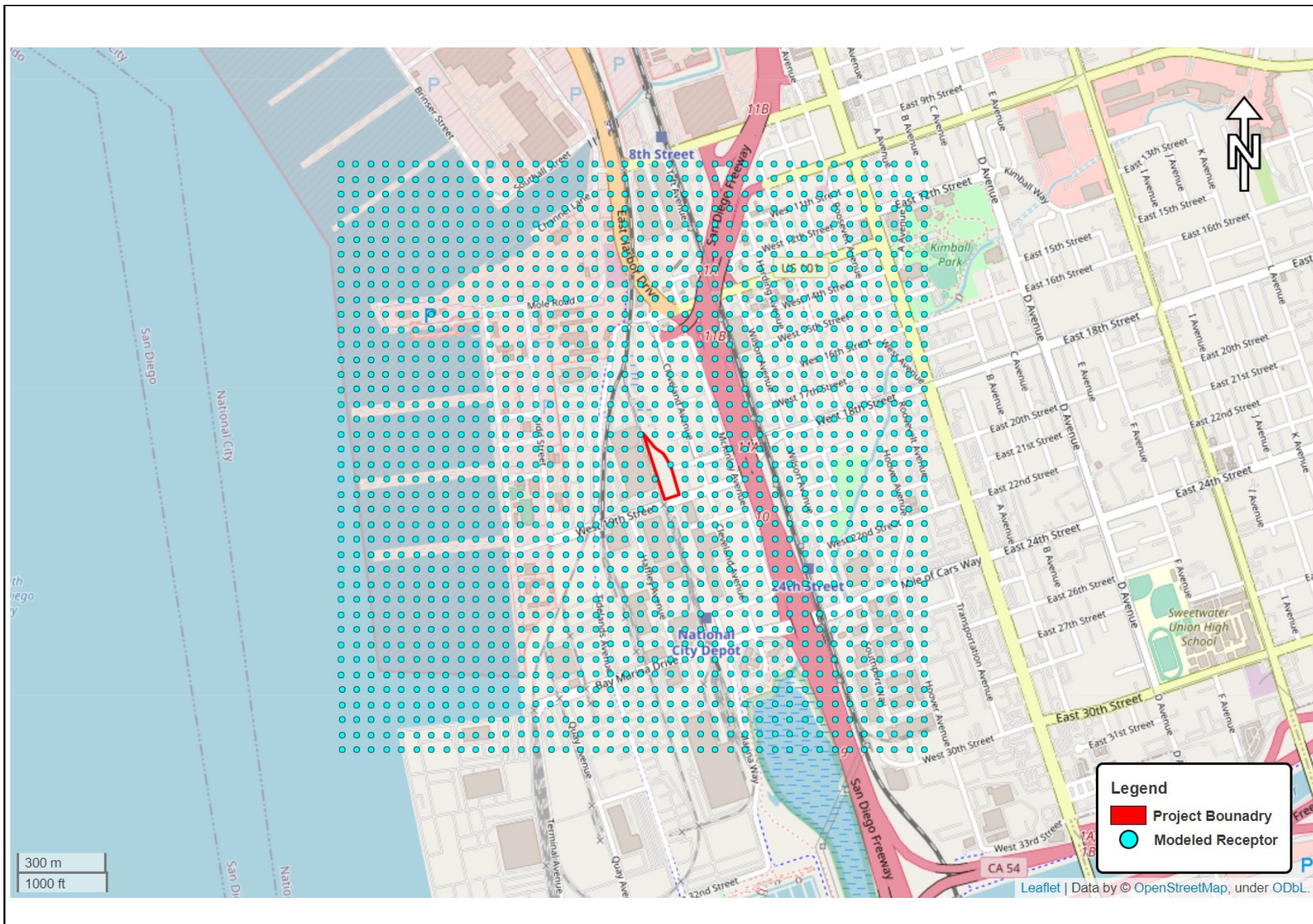
Figure B-1. PES Wind Rose (SDAPCD Data)

2021-285 San Diego Clean Fuels Terminal



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure B-2. Surface Station Location
2021-285 San Diego Clean Fuels Terminal



ECORP Consulting, Inc.
ENVIRONMENTAL CONSULTANTS

Figure B-3. Modeled Receptor Locations

2021-285 San Diego Clean Fuels Terminal

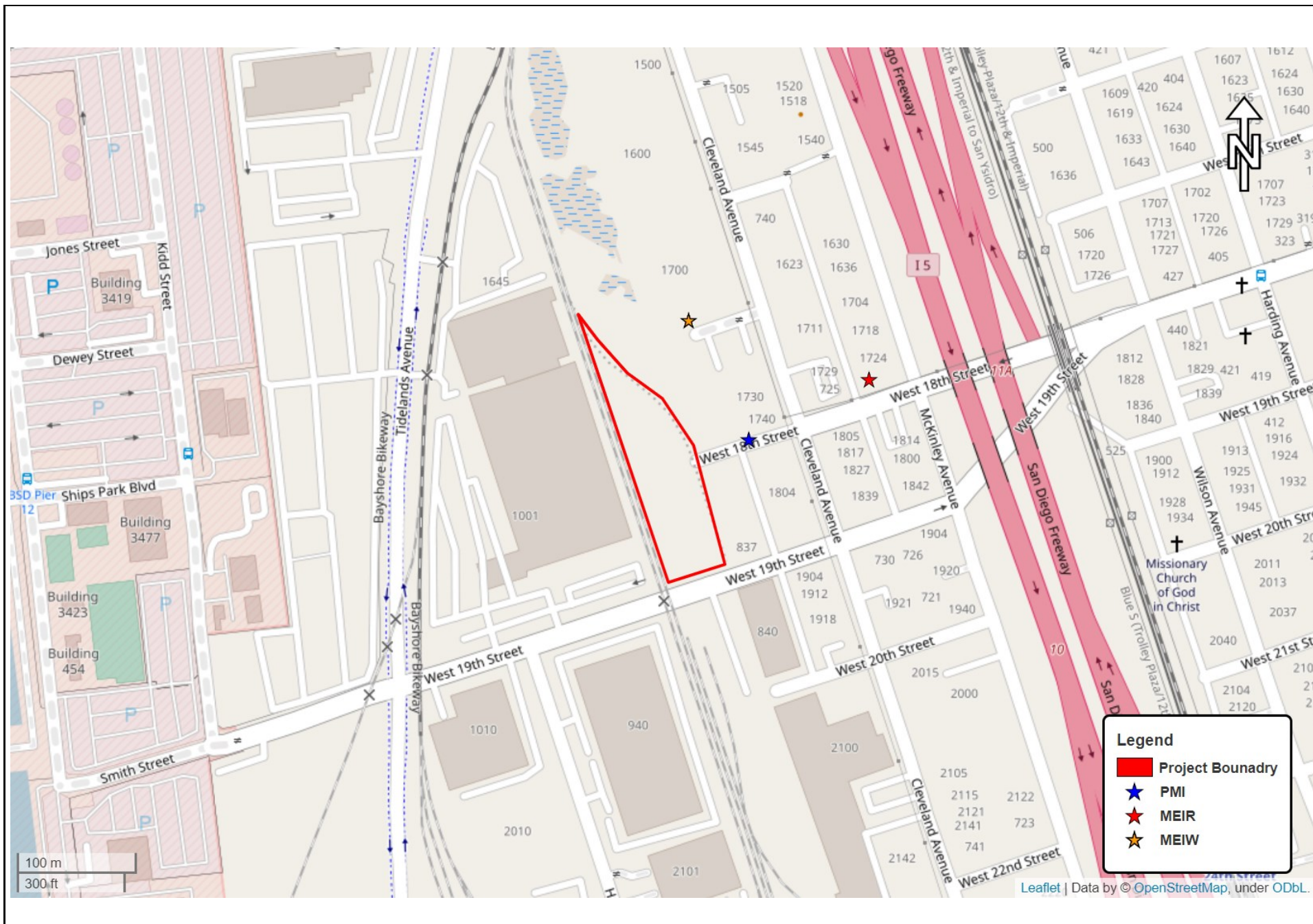


Figure B-4. PMI, MEIR, MEIW Locations
 2021-285 San Diego Clean Fuels Terminal



APPENDIX B

Biological Resources Assessment

Biological Resources Assessment for the San Diego Clean Fuels Facility LLC Project

National City, California

Lead Agency:

City of National City
1243 National City Boulevard
National City, California 91950

Prepared For:

USD Clean Fuels
811 Main, Suite 2800
Houston, Texas 77002

Prepared By:



ECORP Consulting, Inc.
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San Diego, CA 92108

July 2022

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Attachment A – Representative Site Photographs

Attachment B – Plant Species Observed

Attachment C – Wildlife Species Observed

Attachment D – Special-Status Plant Potential for Occurrence

Attachment E – Special-Status Wildlife Potential for Occurrence

LIST OF ACRONYMS AND ABBREVIATIONS

Acronym	Definition
AOU	American Ornithologists' Union
APN	Assessor's Parcel Number
BNSF	Burlington Northern Santa Fe
BSA	Biological Survey Area
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Data Base
CNPS	California Native Plant Society
CNPSEI	California Native Plant Society's Electronic Inventory
CRPR	California Rare Plant Rank
CWA	Clean Water Act
ESA	Endangered Species Act
FR	Federal Register
GIS	Geographic Information Systems
GNSS	Global Navigation Satellite System
HCP	Habitat Conservation Plan
IPaC	Information for Planning and Consultation
LCP	Local Coastal Programs
MBTA	Migratory Bird Treaty Act
NPDES	National Pollutant Discharge Elimination System
NPPA	Native Plant Protection Act
NRCS	Natural Resources Conservation Service
RWQCB	State Water Resources Control Board
SAA	Streambed Alteration Agreement
sf	Square foot/feet
SSAR	Society for the Study of Amphibians and Reptiles
SSC	Species of Special Concern
SWRCB	State Water Resources Control Board
USACE	U.S. Army Corps of Engineers
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

The San Diego Clean Fuels Facility LLC Project (Project) is a proposed renewable diesel fuel facility located on approximately 10.9 acres of undeveloped land in National City, California. The purpose of this Biological Resources Assessment (also referred to herein as report) is to document the biological resources identified as present or potentially present on the Project site; identify potential biological resource impacts resulting from the proposed Project; and recommend measures to avoid, minimize, and/or mitigate significant impacts consistent with federal, state, and local rules and regulations, including the California Environmental Quality Act (CEQA).

For the purposes of this report, the term Project Area refers to the areas proposed to be directly affected by implementation of the Project and corresponds to the client-supplied Project boundary. The term Biological Survey Area (BSA) refers to the Project Area and a 500-foot buffer surrounding the Project boundaries, potentially subject to temporary or indirect impacts.

1.1 Location and Setting

The proposed Project is approximately 10.9 acres (473,075.7 square feet [sf]) and is primarily unimproved and undeveloped. The site was formerly used for railroad and industrial purposes. A portion of the site contains four closed release cases. There is one open release case located on the adjoining/adjacent properties. The open remediation case is the Pacific Steel, Inc. property located adjacent and east of the site (herein referred to as Remediation Area). The Project site is located in the Medium Industrial Zone within the Coastal Zone overlay.

The proposed Project is located entirely within the National City Municipal Boundary in San Diego County (County), California (Figure 1). As depicted on the U.S. Geological Survey (USGS) 7.5-minute "National City, California" topographic quadrangle, the proposed Project is located within an un-sectioned portion of the La Nación Land Grant of Township 17 South, Range 2 West, San Bernardino Base and Meridian (USGS 1975). The proposed Project is located at the northeastern corner of the intersection of West 19th Street and the existing Burlington Northern Santa Fe (BNSF) double tracks, approximately 500 feet west of Interstate 5 and 2,000 feet east of the Pacific Ocean (Figure 2). A summary of geographic information is provided in Table 1.

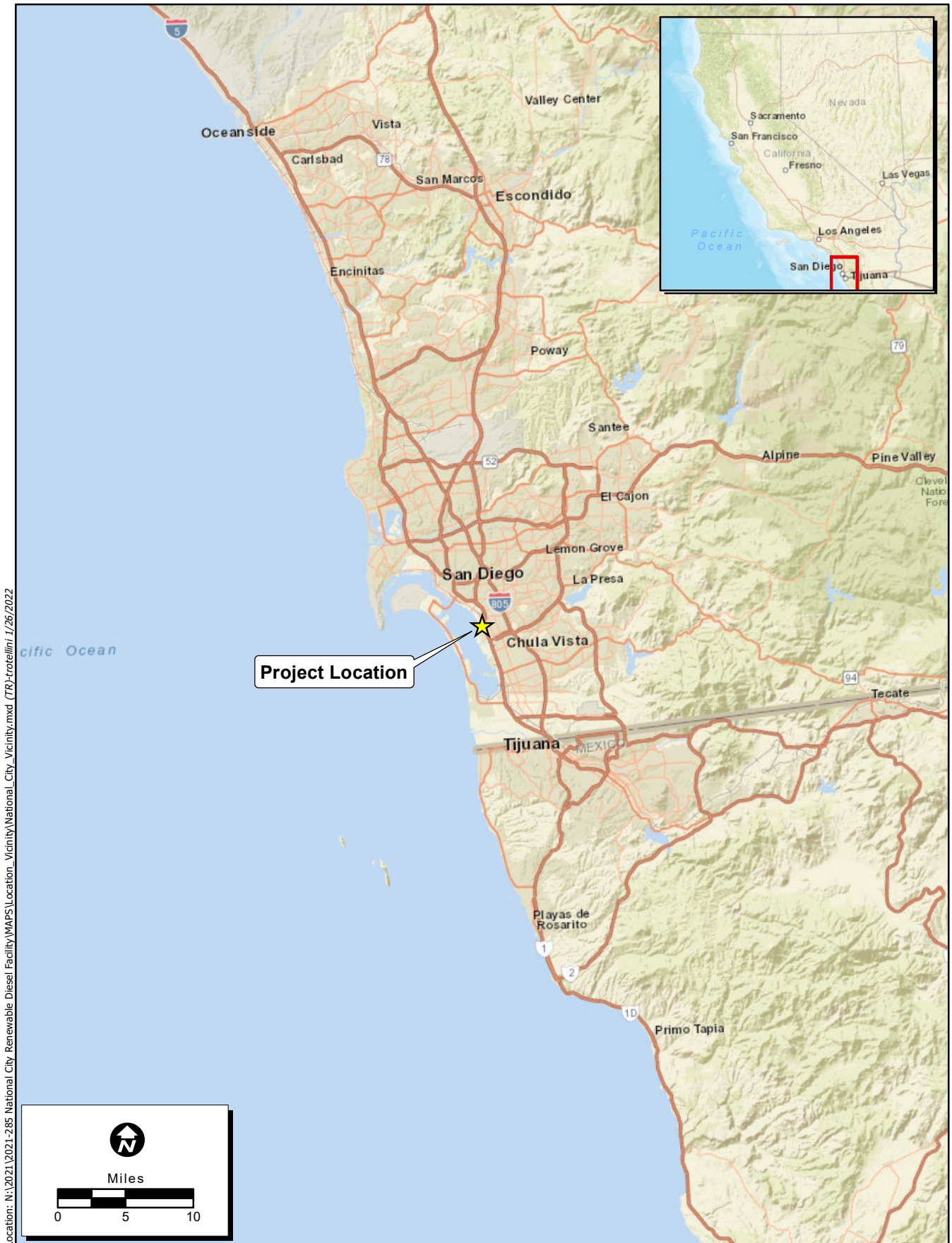


Figure 1. Project Vicinity

2021-285 San Diego Clean Fuels Facility LLC Project



Figure 2. Project Location

2021-285 San Diego Clean Fuels Facility LLC Project

Table 1. Project Area Location

County	Survey Area	Approximate Center of BSA		Project Area Acreage	BSA Acreage ¹	APNs within Project Area
		Latitude (Decimal Degrees)	Longitude (Decimal Degrees)			
San Diego County	BSA (Project Area + 500 ft buffer)	32.666320°	-117.113687	10.86	89.53	5590910300, 5590560300, 5590710400, 5590760300, 5590405700, 5550900200, 5590101400, 5590100400, 5590404600, 5590404700, 5590405200, 5590400402, 5590400401, 5590404800, 5590510400, 5590511000, 5590511100, 5590760100, 5590760200, 5590760400, 5590911400, 5590911100, 5590405800

¹Project Area + 500 Foot buffer
APN = Assessor's Parcel Number

1.2 Project Description

The San Diego Clean Fuels Facility LLC Project proposes to construct a transloading facility on the BNSF Railway railroad right-of-way located between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks and between Civic Center Drive and West 19th Street in National City, California. The new National City Rail Terminal will add nine rail spurs and five fixed truck loading spots to transload bio-diesel fuel and renewable diesel fuel directly from rail cars into trucks. The proposed Project consists of the following improvements: complete the remediation of the area behind 1700 Cleveland Avenue, build tracks and turnouts/crossovers to facilitate car movement in/out and within the transload facility, install concrete slab pump pads at each transload spot, install truck load slabs sloped to a drain in the center at each transload spot, install pumps and piping to move fuels from rail cars to truck loading spots, provide a concrete-lined containment basin and pipe each load slab drain to the basin, provide track pans for containment at the rail transloading cars, provide a kiosk for driver check-in and bill of lading printing, provide temporary restroom facilities for driver use, provide all weather (gravel) paving for the facility and circulation, and provide lighting for the site as needed.

1.3 Regulatory Considerations

The biological reconnaissance survey was conducted to identify potential constraints and to determine if biological constraints will be subject to state and federal regulations regarding listed, protected, and sensitive species. The regulations considered are detailed in the sections below.

1.4 Federal Regulations

1.4.1 Endangered Species Act

The federal Endangered Species Act (ESA) protects plants and animals that are listed as endangered or threatened by the U.S. Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service. Section 9 of the ESA prohibits the taking of endangered wildlife, where taking is defined as “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct” (50 Code of Federal Regulations [CFR] 17.3). For plants, this statute governs removing, possessing, maliciously damaging, or destroying any endangered plant on federal land and removing, cutting, digging up, damaging, or destroying any endangered plant on non-federal land in knowing violation of state law (16 U.S. Code 1538). Under Section 7 of the ESA, federal agencies are required to consult with the USFWS if their actions, including permit approvals or funding, could adversely affect a listed (or proposed) species (including plants) or its critical habitat. Through consultation and the issuance of a biological opinion, the USFWS may issue an incidental take statement allowing take of the species that is incidental to an otherwise authorized activity provided the activity will not jeopardize the continued existence of the species. Section 10 of the ESA provides for issuance of incidental take permits where no other federal actions are necessary provided a Habitat Conservation Plan (HCP) is developed.

1.4.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) implements international treaties between the U.S. and other nations devised to protect migratory birds, any of their parts, eggs, and nests from activities such as hunting, pursuing, capturing, killing, selling, and shipping, unless expressly authorized in the regulations or by permit. As authorized by the MBTA, the USFWS issues permits to qualified applicants for the following types of activities: falconry, raptor propagation, scientific collecting, special purposes (rehabilitation, education, migratory game bird propagation, and salvage), take of depredating birds, taxidermy, and waterfowl sale and disposal. The regulations governing migratory bird permits can be found in 50 CFR Part 13 General Permit Procedures and 50 CFR Part 21 Migratory Bird Permits. The State of California has incorporated the protection of birds of prey in Sections 3800, 3513, and 3503.5 of the California Fish and Game Code.

1.4.3 Clean Water Act

The purpose of the federal Clean Water Act (CWA) is to “restore and maintain the chemical, physical, and biological integrity of the nation’s waters.” Section 404 of the CWA prohibits the discharge of dredged or fill material into Waters of the U.S. without a permit from the U.S. Army Corps of Engineers (USACE). The definition of Waters of the U.S. includes rivers, streams, estuaries, the territorial seas, ponds, lakes, and wetlands. Wetlands are defined as those areas “that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3 7b). The U.S. Environmental Protection Agency (USEPA) acts as a cooperating agency to set policy, guidance, and criteria for use in evaluation permit applications and also reviews USACE permit applications.

The USACE regulates *fill* or dredging of fill material within its jurisdictional features. *Fill material* means any material used for the primary purpose of replacing an aquatic area with dry land or changing the bottom elevation of a water body. Substantial impacts to wetlands may require an individual permit. Projects that only minimally affect wetlands may meet the conditions of one of the existing Nationwide Permits. A Water Quality Certification or waiver pursuant to Section 401 of the CWA is required for Section 404 permit actions; this certification or waiver is issued by the State Water Resources Control Board (SWRCB), administered by each of nine California Regional Water Quality Control Boards (RWQCB).

1.5 State and Local Regulations

1.5.1 California Endangered Species Act

The California ESA generally parallels the main provisions of the federal ESA but, unlike its federal counterpart, the California ESA applies the take prohibitions to species proposed for listing (called *candidates* by the State). Section 2080 of the California Fish and Game Code prohibits the taking, possession, purchase, sale, and import or export of endangered, threatened, or candidate species, unless otherwise authorized by permit or in the regulations. Take is defined in Section 86 of the California Fish and Game Code as “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill.” The California ESA allows for take incidental to otherwise lawful development projects. State lead agencies are required to consult with California Department of Fish and Wildlife (CDFW) to ensure that any action they undertake is not likely to jeopardize the continued existence of any endangered or threatened species or result in destruction or adverse modification of essential habitat.

1.5.2 Fully Protected Species

The State of California first began to designate species as *fully protected* prior to the creation of the federal and California ESAs. Lists of fully protected species were initially developed to provide protection to those animals that were rare or faced possible extinction, and included fish, amphibians and reptiles, birds, and mammals. Most fully protected species have since been listed as threatened or endangered under federal and/or California ESAs. The regulations that implement the Fully Protected Species Statute (California Fish and Game Code § 4700) provide that fully protected species may not be taken or possessed at any time. Furthermore, CDFW prohibits any state agency from issuing incidental take permits for fully protected species, except for necessary scientific research.

1.5.3 Native Plant Protection Act

The Native Plant Protection Act (NPPA) of 1977 (California Fish and Game Code §§ 1900-1913) was created with the intent to “preserve, protect and enhance rare and endangered plants in this State.” The NPPA is administered by CDFW. The Fish and Wildlife Commission has the authority to designate native plants as “endangered” or “rare” and to protect endangered and rare plants from take. The California ESA of 1984 (California Fish and Game Code § 2050-2116) provided further protection for rare and endangered plant species, but the NPPA remains part of the California Fish and Game Code.

1.5.4 Porter-Cologne Water Quality Control Act

The RWQCB implements water quality regulations under the federal CWA and the Porter-Cologne Water Quality Control Act (hereafter referred to as Porter-Cologne Act). These regulations require compliance with the National Pollutant Discharge Elimination System (NPDES), including compliance with the California Storm Water NPDES General Construction Permit for discharges of storm water runoff associated with construction activities. General Construction Permits for projects that disturb one or more acres of land require development and implementation of a Storm Water Pollution Prevention Plan. Under the Porter-Cologne Act, the RWQCB regulates actions that would involve “discharging waste, or proposing to discharge waste, with any region that could affect the water of the state” [Water Code 13260(a)].

Waters of the State are defined as “any surface water or groundwater, including saline waters, within the boundaries of the state” (Water Code 13050[e]). The RWQCB regulates all such activities, as well as dredging, filling, or discharging materials into Waters of the State that are not regulated by the USACE due to a lack of connectivity with a navigable water body. The RWQCB may require issuance of Waste Discharge Requirements for these activities.

On April 2, 2019, the SWRCB adopted the *State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State* (referred to as the Procedures) for inclusion in the *Water Quality Control Plan for Inland Surface Waters, Enclosed Bays, and Estuaries of California* (Resolution No. 2019-0015). The new Procedures include:

- definition of wetlands and aquatic resources that are Waters of the State,
- description of application requirements for individual orders (not general orders) for water quality certification, or waste discharge requirements,
- description of information required in compensatory mitigation plans, and
- definition of exemptions to application procedures.

The Office of Administrative Law approved the procedures on August 28, 2019, and the rule went into effect May 28, 2020.

1.5.5 Coastal Zone Management Act

The Coastal Zone Management Act was passed in 1972 to provide incentives for states and local governments to create diverse planning and protection of coastal natural resources through laws and management programs as stated:

...to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well and the needs for compatible economic development programs (16 U.S. Code 1452(2)).

1.5.6 California Coastal Act

The California Coastal Act of 1976 was created with guidance from the California Coastal Plan to protect natural coastal resources, enhance public access to the coast, and balance conservation and development and to be managed by the newly formed California Coastal Zone Conservation Commission or, as its called today, the California Coastal Commission (CCC). The California Coastal Act (CCA) applies to the government, businesses, and private individuals and regulates all land and water uses from the high tide line of the California coastal out to 3 nautical miles inland, except for the San Francisco Bay. Local governments serve as the regulatory agency within the boundaries of their jurisdiction and are also responsible for creating Local Coastal Programs (LCP) to guide coastal planning, development, and conservation as well as issuing permits. The California Coastal Commission operates under the federal Coastal Zone Management Act and reviews LCPs for approval. It is also important to note, the CCC criteria for wetlands varies from USACE and CDFW. The CCA protects important coastal biological resources including wetlands, riparian habitats and other areas defined as Environmentally Sensitive Habitat Areas by the CCC in accordance with the Coastal Act.

1.5.7 California Fish and Game Code

1.5.7.1 Streambed Alteration Agreement

Section 1602 of the California Fish and Game Code requires that a Notification of Lake or Streambed Alteration be submitted to CDFW for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake.” The CDFW reviews the proposed actions and, if necessary, submits to the Applicant a proposal for measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the Applicant is the Streambed Alteration Agreement (SAA). Often, projects that require an SAA also require a permit from the USACE under Section 404 of the CWA. In these instances, the conditions of the Section 404 permit and the SAA may overlap.

1.5.7.2 Migratory Birds

The CDFW enforces the protection of nongame native birds in Sections 3503, 3503.5, and 3800 of the California Fish and Game Code. Section 3513 of the California Fish and Game Code prohibits the possession or take of birds listed under the MBTA. These sections mandate the protection of California nongame native birds’ nests and also make it unlawful to take these birds. All raptor species are protected from *take* pursuant to California Fish and Game Code § 3503.5 and are also protected at the federal level by the MBTA of 1918 (USFWS 1918).

1.5.8 CEQA Significance Criteria

Section 15064.7 of the CEQA Guidelines encourages local agencies to develop and publish the thresholds the agency uses in determining the significance of environmental effects caused by projects under its review. However, agencies may also rely upon the guidance provided by the expanded Initial Study checklist contained in Appendix G of the CEQA Guidelines. Appendix G provides examples of impacts that

would normally be considered significant. Based on these examples, impacts to biological resources would normally be considered significant if the project would:

- 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 CDFW or USFWS;
- have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by CDFW or USFWS;
- have a substantial adverse effect on State or federally protected wetlands (including, but not limited to, marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means;
- 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;
- conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance; and
- conflict with the provisions of an adopted HCP, Natural Community Conservation Plan, or other approved local, regional, or state HCP.

An evaluation of whether an impact on biological resources would be substantial must consider both the resource itself and how that resource fits into a regional or local context. Substantial impacts would be those that would diminish, or result in the loss of, an important biological resource, or those that would obviously conflict with local, state, or federal resource conservation plans, goals, or regulations. Impacts are sometimes locally important but not significant according to CEQA. The reason for this is that although the impacts would result in an adverse alteration of existing conditions, they would not substantially diminish, or result in the permanent loss of an important resource on a population-wide or region-wide basis.

Table 2. Summary Table of Federal, State, and Local Regulations		
Regulation	Resource	Regulating Agency
Federal Regulations		
Federal Endangered Species Act	Listed <i>Endangered</i> or <i>Threatened</i> plant and animal species	USFWS
Migratory Bird Treaty Act	Migratory birds, or their parts, nests, or eggs	USFWS
Clean Water Act	Waters of the State – aquatic resources	USACE
State Regulations		
California Endangered Species Act	Listed <i>Endangered</i> , <i>Threatened</i> , or <i>Candidate</i> native species and their habitats	CDFW

Table 2. Summary Table of Federal, State, and Local Regulations

Regulation	Resource	Regulating Agency
Native Plant Protection Act	64 species, subspecies, and varieties of endangered or rare native plants	CDFW
California Fish and Game Code	37 California ESA-threatened or endangered species that are rare or face possible extinction; Section 1600 protection of streambeds and associated riparian habitat; Fully protected species.	CDFW
Porter-Cologne Water Quality Control Act /California Water Code	Waters of the State – aquatic resources	RWQCB
Coastal Zone Management Act/ California Coastal Act	All land and water uses from the high tide line of the California coastal out to 3 nautical miles inland	CCC
Local Regulations		
CEQA Significance Criteria	Special-status species, riparian habitat, or sensitive natural communities, federal	City of National City

2.0 METHODS

2.1 Literature Review

Prior to conducting the biological reconnaissance survey, ECORP biologists performed a literature review to determine the special-status plant and wildlife species documented in the vicinity of the Project Area. The following databases and resources were reviewed:

- CDFW's California Natural Diversity Data Base (CNDDB; CDFW 2022a) and the California Native Plant Society's (CNPS) Electronic Inventory (CNPSEI; CNPS 2022);
- National Wetlands Inventory database (USFWS 2022a)
- Information for Planning and Consultation (IPaC; USFWS 2022b)
- U.S. Department of Agriculture, Natural Resources Conservation Service (NRCS) *Web Soil Survey* (NRCS 2022a);
- USGS 7.5-minute topographical maps of the BSA and vicinity;
- *Special Animals List* (CDFW 2022b);
- *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2022c);
- *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012);
- *The Manual of California Vegetation*, 2nd Edition (Sawyer et al. 2009); and
- various online websites (e.g., CalFlora 2022).

The results of the literature review were then refined through site visits involving habitat assessments for these species and resources. Only special-status species with potential to occur within the BSA are discussed in this report. For the purposes of this report, species are considered to be special-status if they meet at least one of the following criteria:

- Species listed or proposed for listing as threatened or endangered under the ESA (50 CFR, Title 50, Section 17.12 [listed plants]); and 50 CFR 17.11 (listed animals), and various notices in the Federal Register (FR) (proposed species);
- Species that are candidates for possible future listing as threatened or endangered under the ESA (79 FR 72450, December 5, 2014);
- Species listed or proposed for listing by the State of California as threatened or endangered under the California ESA (14 California Code of Regulations, Title 14, Section 70.5);
- Plant species listed as rare under the California Native Plant Protection Act (California Fish and Game Code Section 1900, et seq.);
- Species that meet the definitions of *rare* or *endangered* under CEQA (State CEQA Guidelines Sections 15380 and 15125);
- Animal species of special concern to CDFW;
- Bird species of conservation concern as identified by USFWS in *Birds of Conservation Concern*;
- Animals that are fully protected in California (California Fish and Game Code Sections 3511 [birds], 4700 [mammals], 5050 [amphibians and reptiles], and 5515 [fish]);
- Designated as California Rare Plant Rank (CRPR) 1A (presumed extinct in California), 1B (rare, threatened, and endangered in California and elsewhere), or 2 (rare, threatened, or endangered in California, but more common elsewhere). CRPR 1A, 1B, and 2 species are considered special-status plant species as defined in the NPPA, California Fish and Game Code Section 1901 or the California ESA, California Fish and Game Code Sections 2050 through 2098; and,
- CRPR 3 (plants for which more information is needed [a review list]), or 4 (plants of limited distribution [watch list]) (CNPS 2022). Many CNPS CRPR 3 and 4 species do not meet the definitions of special-status as defined in the NPPA, California Fish and Game Code Section 1901 or the California ESA, California Fish and Game Code Sections 2050 through 2098, but are strongly recommended for consideration under CEQA (CNPS 2001).

2.1.1 Special-Status Species Potential for Occurrence

Using information from the literature review and observations in the field, a list of special-status plant and animal species that have potential to occur within the BSA was generated. For the purposes of this assessment, special-status species are defined as plants or animals that:

- have been designated as either rare, threatened, or endangered by CDFW, CNPS, or the USFWS, and/or are protected under either the federal or California ESAs;

- are candidate species being considered or proposed for listing under these same acts;
- are fully protected by the California Fish and Game Code, §§ 3511, 4700, 5050, or 5515; and
- are of expressed concern to resource and regulatory agencies or local jurisdictions.

Special-status species reported for the region in the literature review or for which suitable habitat occurs in the BSA were assessed for their potential to occur within the BSA based on the following guidelines:

Present: The species was observed on-site during a reconnaissance visit or focused survey.

High: Habitat (including soils and elevation factors) strongly associated with the species occurs within the BSA and a known occurrence has recently been recorded (within the last 20 years) within five miles of the area.

Moderate: Habitat (including soils and elevation factors) for the species occurs within the BSA and a recent documented observation occurs within the database search, but not within five miles of the area; habitat for the species occurs and a historic documented observation (more than 20 years old) was recorded within five miles of the BSA; or a recently documented observation occurs within five miles of the area and marginal or limited amounts of habitat occurs in the Project site.

Low: Limited or no suitable habitat for the species occurs within the BSA but a recently documented observation occurs within the database search; a historic documented observation (more than 20 years old) was recorded within five miles of the BSA and suitable habitat strongly associated with the species occurs on-site.

Presumed Absent: The species was not observed during a site visit or focused surveys conducted in accordance with protocol guidelines at an appropriate time for identification; habitat (including soils and elevation factors) does not exist on-site; and/or no records occur within five miles; and/or the known geographic range of the species does not include the BSA.

Note: Location information on some special-status species may be of questionable accuracy or unavailable. Therefore, for survey purposes, the environmental factors associated with a species' occurrence requirements may be considered sufficient reason to give a species a positive potential for occurrence. In addition, just because a record of a species does not exist in the databases does not mean it does not occur. In many cases, records may not be present in the databases because an area has not been surveyed for that particular species.

2.2 Field Survey

2.2.1 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by walking the entire BSA to determine the vegetation communities and wildlife habitats present. Private property and inaccessible areas within the buffer were surveyed utilizing 8x42 magnification binoculars. The biologists documented the plant and animal species present in the BSA and the conditions within the BSA were assessed for their potential to provide habitat for special-status plant and wildlife species, including those from the literature review.

Data was recorded with a Global Navigation Satellite System (GNSS) device capable of submeter accuracy, with data sheets, and field map notes. GNSS devices were set to North American Datum (NAD) 83, Universal Transverse Mercator coordinates, Zone 11S. Photographs were also taken during the survey to provide visual representation of site conditions. The Project site was also examined to assess its potential to facilitate wildlife movement or function as a movement corridor for wildlife throughout the region.

Surveyors conducted vegetation mapping within the BSA by walking meandering transects and from selected vantage points that allowed an expansive view of the BSA. The information gathered from the survey were then used to assist the biologists with accurate mapping of the vegetation communities. Field biologists used ortho-rectified maps at a scale of 1 inch equals 200 feet and GNSS devices for vegetation mapping. Vegetation classifications were in accordance with *A Manual of California Vegetation* (Sawyer et al. 2009). Vegetation communities that did not fit within the Sawyer classification system were described following Holland (1986) or Cowardin (alternative methods). Areas of the site that had already been graded, developed, and/or disturbed were mapped as such. Acreages of each vegetation community and other land cover types were calculated based on Geographic Information Systems (GIS) data collected during the survey.

Plant and wildlife species were recorded during the survey. Plant nomenclature follows that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012). Wildlife nomenclature follows that of *The American Ornithologists' Union (AOU) Checklist of North American Birds* (AOU 2022), the Society for the Study of Amphibians and Reptiles (SSAR, 2017), and the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

2.2.2 Aquatic Resources Delineation

An aquatic resources delineation was conducted by ECORP delineation specialists in conjunction with the biological reconnaissance survey, the results of which are presented under separate cover (ECORP 2022).

2.2.3 Focused Rare Plant Survey

Focused rare plant survey methods were devised with consideration of the following resources: 1) USFWS General Rare Plant Survey Guidelines (USFWS 2002); 2) CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and 3) CNPS Botanical Survey Guidelines (CNPS 2001).

The survey was scheduled to coincide with most of the target species' blooming periods and during a period when most target species were readily identifiable. The specific location and abundance of any plants that resembled target rare plant species whose bloom periods had already occurred or were going to occur were recorded for verification at the appropriate time. The highest priority target species was San Diego Ambrosia (*Ambrosia pumila*), a federally listed endangered and CRPR 1B.1 species due to the disturbed nature of the Project Area and recent, close-proximity occurrences within the literature review search.

Pedestrian-based survey transects, spaced approximately 2 meters apart, were walked to provide 100 percent visual coverage within the BSA, where accessible. If vegetation was too dense, the survey spacing

was modified accordingly. A sub-meter Global Positioning System (GPS) device was used during surveys to record the coordinates of any rare plant species observed. Each GPS device displayed a position using the Universal Transverse Mercator (UTM) coordinate system, North American Datum 1983.

A plant species compendium was compiled during the survey event and additional species observed were added to the master plant species compendium for the Project. Plants that could not be identified in the field were sampled so that a dissecting microscope could be used for plant identification. Taxonomy of plant species identified within the BSA followed that of *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012).

3.0 RESULTS

The results of the literature review and field surveys, including site characteristics, vegetation communities, wildlife, special-status species, and special-status habitats (including any potential wildlife corridors) are summarized below.

3.1 Property Characteristics

The BSA consists of highly disturbed land surrounded by industrial and commercial development. The area has been developed since at least 1904. A BNSF railroad comprises the western edge of the Project Area. A disturbed lot comprises a majority of the southern portion of the Project Area with a paved parking lot in the southeast portion. The Remediation Area (see Figure 2) comprises a majority of the northern half of the Project Area which is bordered by a brick wall and contains disturbed vegetation communities. An industrial storage yard resides north of 18th street, southeast of the Remediation Area and north of the paved parking lot. Representative site photographs are included in Attachment A.

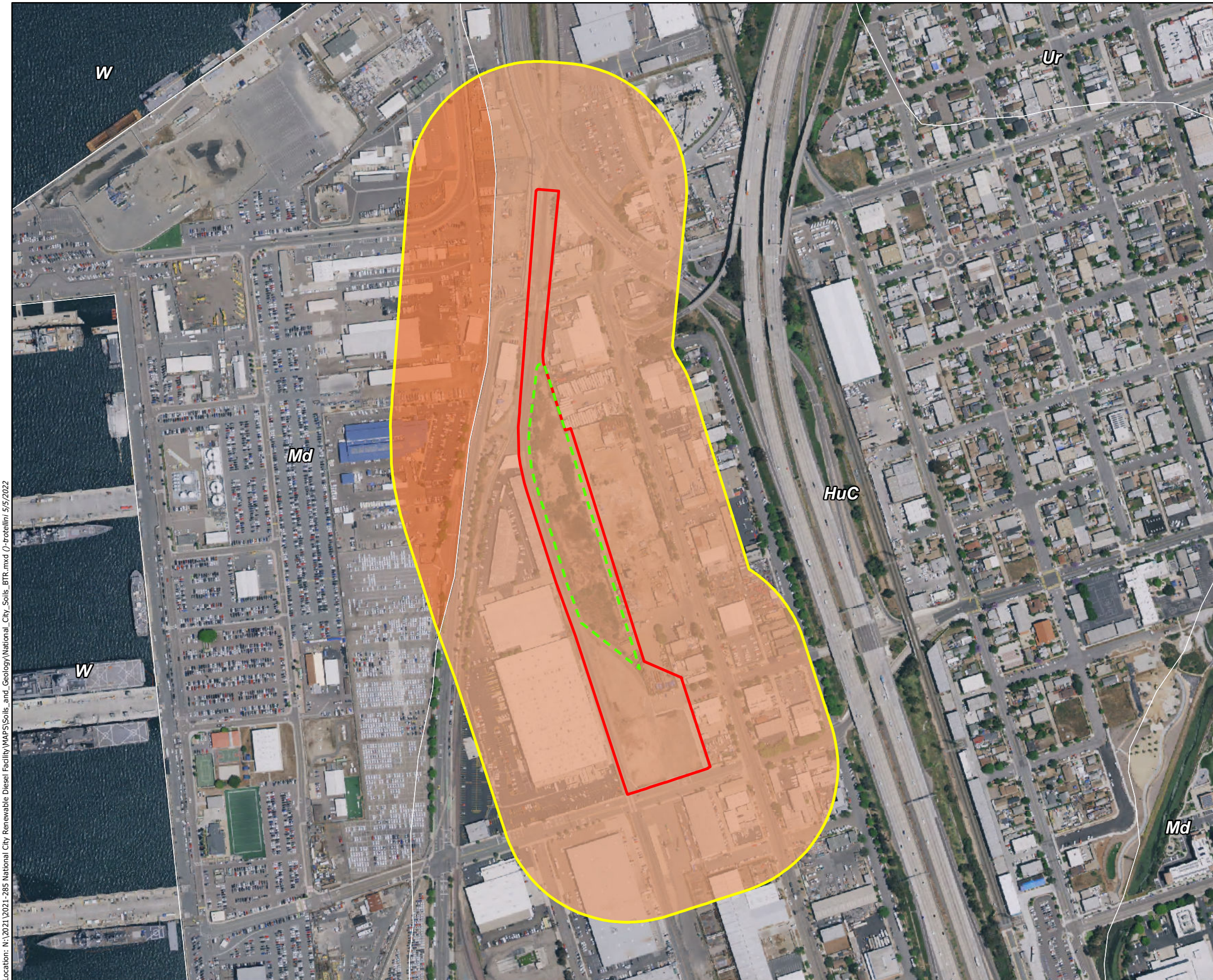
Topography for the Project Area is generally flat and the elevation is at 8 to 13 feet above mean sea level throughout the Project Area. A search for mapped soils was conducted using data available from the Web Soil Survey website (NRCS 2022a). Two soil units, or types, occur within the BSA (Figure 3). These include:

- HuC - Huerhuero-Urban land complex, 2 to 9 percent slopes
- Md - Made land

Records of mapped soils with hydric components within the BSA (NRCS 2022b) were not found. There is an approximately 0.25-acre area of the BSA that comprises loose and friable sand. The location of this area is in the southwestern portion of the Project Area where a trucking distribution center (building and paved parking lot) used to be located. A summary of characteristics based on official series descriptions for the soil series mapped within the BSA is provided under separate cover in the aquatic resources delineation report (ECORP 2022).

3.2 Biological Reconnaissance Survey

The biological reconnaissance survey was conducted by ECORP biologists Caroline Garcia, Christina Torres, and Kirsten Zornado. Summarized below are the results of the biological reconnaissance survey, including site characteristics, plants and vegetation communities, wildlife, special-status species, and





**Figure 3. Natural Resources
Conservation Service Soil Types**

Map Content

-  Project
-  Remediation
-  500-ft Buffer

Series Designation - Series Description

-  HuC - Huerhuero-Urban land complex,
2 to 9 percent slopes
-  Md - Made land

Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Soils_and_Geology\National_City_Soils_BTR.mxd 0-tratellini 5/5/2022

special-status habitats (including any potential wildlife corridors). Weather conditions during the survey are summarized in Table 3.

Table 3. Weather Conditions During the Survey									
Date	Biologist(s)*	Time		Temperature (°F)		Cloud Cover (%)		Wind Speed (mph)	
		Start	End	Start	End	Start	End	Start	End
03/17/22	CG, CT, and KZ	0810	1330	58	78	0	0	0-1	5-7

*CG= Caroline Garcia; CT=Christina Torres; KZ= Kirsten Zornado

3.2.1 Vegetation Communities and Land Cover Types

The BSA consists of disturbed mulefat thickets and ornamental vegetation. Two additional land cover types occur within the BSA and include developed and disturbed. The location of each vegetation community in the BSA are described in detail below and presented in Figure 4. Within the disturbed area is an approximately 0.25-acre area of loose sandy soils; located in the southwestern portion of the Project Area. Acreages of each habitat and vegetation community within the Project Area where direct impacts would occur, as well as other land cover types, are presented in Table 4. Representative photographs of the habitats within the BSA are included in Attachment A.

Table 4. Vegetation Communities and Land Cover Types in Project Area	
Vegetation Communities and Land Cover Types	Acres
Disturbed Mulefat Thickets	0.82
Ornamental	0.18
Disturbed	4.34
Developed	5.52
Project Area Totals	10.86

3.2.1.1 Disturbed Mulefat Thickets (*Disturbed Baccharis salicifolia Shrubland Alliance*)




Mulefat thickets are characterized as having mulefat dominant or co-dominant in the shrub canopy, typically with other native plant species. Within the Project Area, mulefat thickets are disturbed with sparse cover of mulefat and broom baccharis (*Baccharis sarothroides*) intermixed with nonnative and ornamental species such as red brome (*Bromus madritensis* ssp. *rubens*) and golden wattle (*Acacia pycnantha*). This vegetation community was not associated with any drainages and is present within an upland area of disturbed soils within the Remediation Area. Mulefat is known to be a colonizer of disturbed sites and is not considered a sensitive vegetation community.

Location: N:\2021\2021-285 National City Renewable Diesel Facility\Vegetation and LandCover\National_City_Vegetation.mxd (T)-trotellini 7/11/2022







Figure 4. Vegetation Communities and Land Cover Types

Map Content

-  Project Area
-  Remediation Area
-  500-ft Buffer

Vegetation Communities and Land Cover Types

-  Disturbed Mulefat Thickets (Disturbed *Baccharis salicifolia* Shrubland Alliance)
-  Ornamental
-  Disturbed
-  Developed

3.2.1.2 Ornamental

The ornamental classification consists of vegetation that has been landscaped. The ornamental area of the Project Area is at the southern end of the Remediation Area and is comprised primarily of golden wattle intermixed with nonnative species such as red brome and sweet fennel (*Foeniculum vulgare*).

3.2.1.3 Other Land Cover Types

Disturbed

The disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions such as grading, trash dumping, and dirt roads, but lacks development. Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. Disturbed areas of the Project Area included a large portion of the Remediation Area, a majority of the Project Area situated between the railroad and parking lot. Some of these disturbed areas had remnant native plant species present, however cover was scattered and intermittent. An active dump site and an itinerant encampment were observed within the disturbed areas. In areas classified as disturbed, vegetation was absent or consisted primarily of nonnative species, such as tamarisk (*Tamarix* sp.), foxtail barely (*Hordeum murinum*), Russian thistle (*Salsola tragus*), smilo grass (*Stipa miliacea*), yellow sweet clover (*Melilotus indicus*), and crown daisy (*Glebionis coronaria*).

Developed/Urban Lands

Developed lands are those that are heavily affected by human use, including landscaping, residential homes, commercial or industrial buildings and associated infrastructure, and transportation corridors. Within the Project Area this included the parking lot, materials storage yard, and railroad tracks. Within the larger BSA, this included surrounding commercial buildings and roads. Landscaped areas consisted primarily of ornamental species Mexican fan palm (*Washingtonia robusta*) and sea lavender (*Limonium perezii*) as well as nonnative species, including tree tobacco (*Nicotiana glauca*), rabbitsfoot grass (*Polypogon monspeliensis*), and crown daisy.

3.2.2 Plants Observed

Plant species observed within the Project Area were generally characteristic of disturbed and ornamental vegetation communities. Special-status plants were not observed during the reconnaissance survey. Nonnative plant species observed on the proposed Project were dominant within the disturbed areas, intermittently found within the disturbed native vegetation communities and amongst the ornamental vegetation. A full list of plant species observed on the proposed Project is included in Attachment B.

3.2.3 Wildlife Observed

Wildlife species observed within the BSA included those typical of urban environments such as rock pigeon (*Columba livia*), mourning dove (*Zenaida macroura*), black phoebe (*Sayornis nigricans*), house finch (*Haemorhous mexicanus*), and Anna's hummingbird (*Calypte anna*). Special-status wildlife was not

observed. ECRP biologists observed 17 bird species and four insect species during the reconnaissance survey. A full list of wildlife species observed on the proposed Project is included in Attachment C.

3.3 Special-Status Species Assessment

The literature review resulted in 72 special-status plant and 34 special-status wildlife species that historically have been recorded in the vicinity of the Project Area or that are highly associated with habitat that occurs in the proposed Project Area (Attachments D and E). Special-status plants were evaluated for their potential to occur within the Project Area where impacts could occur. Special-status wildlife were evaluated for their potential to occur within the BSA, a broader area that includes the Project Area and buffer, where direct or indirect impacts could occur.

3.3.1 Special-Status Plants

Numerous special-status plant species have been recorded within five miles of the Project Area, according to the CNDDDB (CDFW 2022a), IPaC (USFWS 2022b), and CNPSEI (CNPS 2022). Of all available records, 72 special-status plant species were identified as those with the potential for occurrence within the vicinity of the Project Area. One species was present within the Project Area and the remaining 71 species were presumed absent based on their known habitat not occurring within the Project Area. Descriptions of the CNPS designations are found in Table 5 and a list of the special-status plant species identified in the literature review is presented below (CNPS 2022).

Table 5. California Rare Plant Ranks	
Rarity Rank	Criteria
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	Review List: Plants About Which More Information is Needed
4	Watch List: Plants of Limited Distribution
Threat Rank	Criteria
.1	Seriously threatened in California (more than 80 percent of occurrences threatened / high degree and immediacy of threat)
.2	Moderately threatened in California (20-80 percent occurrences threatened / moderate degree and immediacy of threat)
.3	Not very threatened in California (less than 20 percent of occurrences threatened / low degree and immediacy of threat or no current threats known)

Note: According to CNPS (Skinner and Pavlik 1994), plants on Lists 1B and 2 meet definitions for listing as threatened or endangered under Section 1901, Chapter 10 of the California Fish and Game Code (California Department of Fish and Game 1984). This interpretation is inconsistent with other definitions.

3.3.1.1 *Special-Status Plant Species Present*

Nuttall's acmispon (*Acmispon prostratus*) is designated as a CRPR 1B.1 plant species. This plant is known to occur at elevations between 0 and 10 meters (0 and 33 feet) and blooms between March and July. Nuttall's acmispon is known to inhabit coastal dunes and sandy soils of coastal scrub. Eight CNDDDB observations of this species occur within a 5-mile radius of the Project Area, five of which are within the last twenty years. The nearest record is 0.45 miles south of the Project Area from 2011 where it was observed growing in disturbed vegetation adjacent to the railroad tracks within the San Diego Bay National Wildlife Refuge. Potential habitat occurs within the Project Area for this species in the sandy soils of the disturbed habitats. This species was not observed during the biological reconnaissance survey but was identified during the focused rare plant survey effort growing in the area with loose sandy soils (see Section 3.3.3).

3.3.1.2 *Special-Status Plant Species Presumed Absent*

The remaining 71 special-status plant species are presumed absent from the Project Area due to the lack of suitable habitat, soil type, and/or elevation range at the proposed Project. Additionally, species originally determined to have potential to warrant focused rare plant surveys, were then demoted to presumed absent when not observed during the focused rare plant survey.

3.3.2 *Special-Status Wildlife*

The literature search documented 35 special-status wildlife species in the vicinity of the proposed Project, 10 of which are federally and/or state-listed under the federal or California ESAs, respectively. Of the 35 special-status wildlife species identified in the literature review, two were found to have a moderate potential to occur and nine were found to have a low potential to occur; the remaining 24 species are presumed absent from the BSA. None of the wildlife species were determined to have a high potential to occur. Descriptions of the federal and state wildlife designations are found in Table 6, and a brief natural history and discussion of the special-status wildlife species that have a moderate potential to occur in the proposed Project Area are provided below. discussion of the special-status wildlife species that have a moderate potential to occur in the proposed Project Area are provided below.

Table 6. Wildlife Status Designations	
Designation	Meaning
Federal	Jurisdiction under United States Fish and Wildlife Service (USFWS)
END	Federally listed as Endangered
THR	Federally listed as Threatened
CAN	Federal Candidate Species
FSC	Federal Species of Concern
FPD	Federal Proposed for Delisting
BBC	Bird of Conservation Concern
State	Jurisdiction under California Fish and Wildlife Service (CDFW)

Table 6. Wildlife Status Designations

Designation	Meaning
END	State listed as Endangered
THR	State listed as Threatened
SSC	California Species of Special Concern
FP	Fully Protected Species
WL	Watch List

3.3.2.1 Special-Status Wildlife Species with a Moderate Potential to Occur

The following species were found to have moderate potential to occur with the BSA because habitat for the species occurs and a known occurrence exists within the database search, but not within five miles of the site; or a known occurrence exists within five miles of the site and marginal or limited amounts of habitat occurs within the BSA:

- Osprey (*Pandion haliaetus*) is a CDFW WL species. This species is most commonly found soaring over or near shallow, fish-filled waters, including oceans, rivers, lakes, reservoirs, lagoons, swamps, and marshes. There is foraging and nesting habitat within the buffer of the Project Area for this species. Foraging and nesting habitat is not provided within the Project Area for osprey. Within San Diego, they are known to nest within urban areas if near suitable foraging habitat. An osprey was observed flying over the proposed Project during the reconnaissance survey. Five recent observations of this species have been recorded within 5 miles of the Project Area. The closest observation was 0.47 mile south of the Project Area in 2019.
- Western yellow bat (*Lasiurus xanthinus*) is a CDFW Species of Special Concern (SSC). This species is commonly found in desert habitat and more recently their range is extending to urban environments. It is known to roost in the skirts of untrimmed palm trees. Potential roosting habitat for this species is present within the palm trees of the Reclamation Area within the proposed Project as well as palm trees within the buffer. One historic record for this species occurs within five miles of the Project Area.

3.3.2.2 Special-Status Wildlife Species with Low Potential to Occur

Of all available records, nine special-status wildlife species were determined to have a low potential to occur within the BSA due to lack of suitable habitat for the species but a known occurrence has been reported in the database, within five miles of the site, or suitable habitat strongly associated with the species occurs on the site, but no records were found in the database search.

3.3.2.3 Special-Status Wildlife Species Presumed Absent

The remaining 24 special-status wildlife species are presumed absent from the BSA due to the lack of suitable habitat, soil type, and/or elevation range at the proposed Project.

3.3.3 Focused Rare Plant Survey

The focused rare plant survey was conducted by ECORP senior botanist/restoration ecologist Josh Corona-Bennett and biologist Caroline Garcia on June 22, 2022, during the appropriate blooming period for special-status plants species determined to have potential to occur (Attachment D), particularly the target plant species San Diego Ambrosia. This species was originally determined to have potential based on the literature review and habitat present on-site. During the survey, there were no observations of federally or state-listed plants; however, one plant species listed as rare by CNPS was located within the Project Area. Special-status plant species Nuttall's acmispon, a CRPR 1B.1 species, was detected within the southwestern portion of the Project Area where loose sandy soils are located (Figure 5). Nuttall's acmispon is a CRPR 1B species, meaning it is rare, threatened, or endangered in California and elsewhere, and its threat rank is rated 0.1, or seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat). One individual of Nuttall's acmispon (annual species) was observed in proximity to a non-special-status species, Heermann's lotus (*Acmispon heermannii* var. *heermannii*). No other special-status plant species were detected within the Project Area.

3.3.4 U.S. Fish and Wildlife Service Designated Critical Habitat

The BSA is not located within any USFWS-designated critical habitat. The closest designated critical habitat is for western snowy plover (*Charadrius nivosus nivosus*) located approximately one mile to the south and Otay tarplant (*Deinandra conjugens*) located approximately five miles to the southeast of the Project Area.

3.4 Wildlife Movement Corridors, Linkages, and Significant Ecological Areas

The concept of habitat corridors addresses the linkage between large blocks of habitat that allow the safe movement of mammals and other wildlife species from one habitat area to another. The definition of a corridor is varied, but corridors may include such areas as greenbelts, refuge systems, underpasses, and biogeographic land bridges, for example. In general, a corridor is described as a linear habitat, embedded in a dissimilar matrix, which connects two or more large blocks of habitat. Wildlife movement corridors are critical for the survivorship of ecological systems for several reasons. Corridors can connect water, food, and cover sources, spatially linking these three resources with wildlife in different areas. In addition, wildlife movement between habitat areas provides for the potential of genetic exchange between wildlife species populations, thereby maintaining genetic variability and adaptability to maximize the success of wildlife responses to changing environmental conditions. This is especially critical for small populations subject to loss of variability from genetic drift and effects of inbreeding. The nature of corridor use and wildlife movement patterns varies greatly among species.

ECORP assessed the proposed Project for its ability to function as a wildlife corridor. The Project Area is surrounded by urban development with major roads that block wildlife movement through the area. Furthermore, the proposed Project does not connect valuable blocks of habitat and lacks valuable habitat itself.

Location: N:\2021\2021-285 National City Renewable Diesel Facility\BAPS\Biological_Resources\National_City_Rare_Plant.mxd (7)-trattellini 6/27/2022

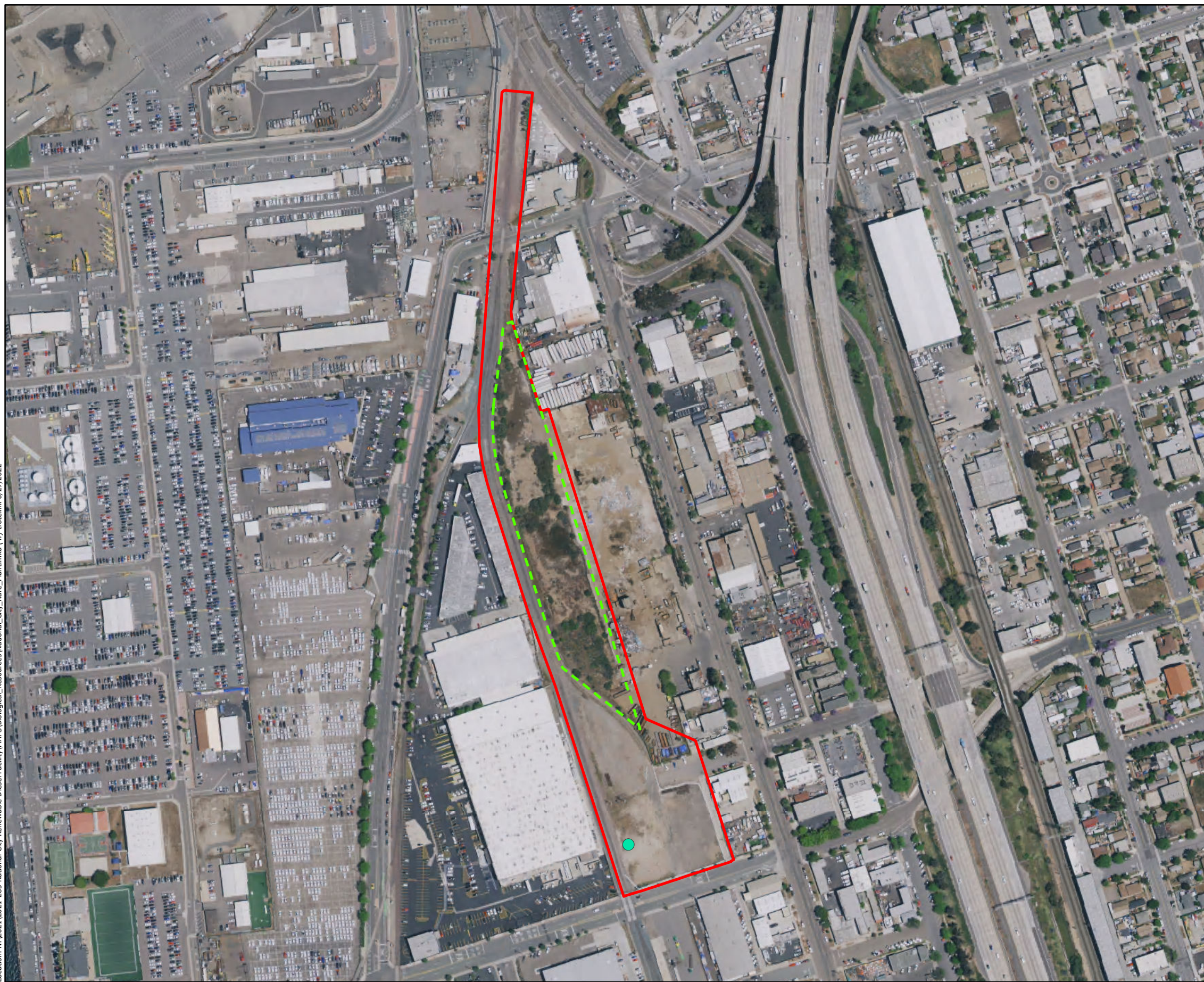





Figure 5. Focused Rare Plant Survey Results

Map Content

-  Project Area
-  Remediation Area
-  Nuttall's acmispon (*Acmispon prostratus*) 1B.1



4.0 IMPACT ANALYSIS

This section provides a Project-level biological resource impact analysis and addresses biological resource issues derived from Appendix G of the CEQA Guidelines, as well as biological resource issues specific to the National City. Direct impacts include the primary effects of construction that displace habitats and species. These impacts will occur in association with proposed Project construction due to grading, paving, and other disturbances associated with general construction activities. Indirect impacts occur from a secondary effect of construction activities. Indirect impacts are those that occur due to the proximity of a disturbance or development to a species or its habitat. These impacts occur over the short term, during construction, and over the long term due to proximity of the new proposed Project features. This type of impact could include habitat isolation or degradation, urban edge effects, nonnative species introduction, runoff, alteration of a wildlife species' normal behaviors and activities, vehicular noise or increased human or pet intrusion. The magnitude of an indirect effect can be as adverse as that of a direct effect, depending on the circumstances. Mitigation, monitoring, and reporting requirements to avoid, eliminate or reduce potentially significant impacts to special-status biological resources to a less than significant level are discussed below. The following sections present impacts to sensitive biological resources resulting from proposed Project activities.

4.1 Sensitive Natural Communities

The proposed Project consists of disturbed vegetation communities, and disturbed and developed land. Vegetation communities mapped within the proposed Project Area include disturbed mulefat thickets and ornamental vegetation. Mulefat thickets are not listed as a sensitive natural community by CDFW, therefore, **no impact** to sensitive natural communities is anticipated.

4.2 Special-Status Species and Vegetation Communities

4.2.1 Special-Status Plants

The literature review resulted in 72 special-status plant species with potential to occur on the proposed Project. Of these 72 special-status plants, one special-status plant species, Nuttall's acmispon, was observed with in the Project Area.

Direct impacts to Nuttall's acmispon may occur as a result of the proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities within the Project Area. Impacts to Nuttall's acmispon would be **less than significant** with the implementation of Mitigation Measure **BIO-1**. Recommended mitigation measures are presented in Section 5.0.

4.2.2 Special-Status Wildlife Species

The results of the literature review identified 35 special-status wildlife species with potential to occur within the BSA. Of these 35 special-status wildlife species, two special-status wildlife species (osprey and western yellow bat), have a moderate potential to occur within the BSA due to the presence of highly suitable habitat and recent occurrences within five miles. Nine special-status wildlife species have a low potential to occur and 24 special-status wildlife species are presumed absent. Special-status wildlife

species were not encountered within the proposed Project Area during the biological resources survey, and focused surveys were not conducted.

An osprey was observed flying to the west of the Project Area during the reconnaissance survey. Osprey are large birds of prey that feed mainly on fish. They tolerate a wide variety of habitats and nest in any location near a body of water providing an adequate food supply. They have been documented in San Diego nesting on utility poles and light fixtures in urban areas adjacent to bodies of water. Although there is low likelihood of nesting of osprey within the Project Area itself, there is potential for nesting within the buffer of the Project Area and the bay nearby provides suitable foraging habitat. Therefore, this species could be indirectly impacted by development of the proposed Project. Implementation of Mitigation Measure **BIO-2** would reduce impacts to osprey and other special-status bird species to a **less than significant** level.

The palm trees located within the Project Area and buffer may provide roosting habitats for bat species, particularly western yellow bat, a SSC species. These trees could function as maternity roost sites for this species. Bat species in California are protected by Section 4150 (protection of non-game mammals from take) of the California Fish and Game Code. Section 4150 of the California Fish and Game Code prohibits the take of any naturally occurring mammals in California that are nongame mammals, which includes all species of the Order Chiroptera (bats).

All bat species with potential for occurrence for the Project are SSC species and Project-related impacts to bat species and bat maternity roosts are potentially significant. Impacts to bat species are expected to be temporary in nature and individual bats are expected to be able to vacate the trees that are removed during construction without being subject to harm if a two-step palm tree removal process is conducted. The two-step removal process for palm trees involves the following:

- The uppermost live fronds (the top of the tree) should be removed entirely on the first day along with the upper 25 percent of the frond skirt. This method would allow for sufficient disturbance of the tree that would encourage any roosting bats within the frond skirt to abandon the tree during evening emergence without directly impacting roosting bats within the skirt. The remainder of the tree should be removed the following day.
- If bats emerge at any time during the tree trimming, trimming activities should cease at that individual tree for the remainder of the day to allow for any additional bats roosting in the tree to emerge during evening hours when it is safe and appropriate for them to do so. Trimming of the tree may resume the following morning.
- Tree trimming activities in the fall should be conducted on days when weather conditions are such that roosting bats are unlikely to be in torpor (i.e., predicted overnight lows on evenings before and after the tree trimming activities are above 45°F) to the extent practicable.

Implementation of Mitigation Measure BIO-3 would reduce impacts to bat species and maternity roosts to a less than significant level.

If present, direct impacts to rare or special-status wildlife species may occur as a result of the proposed Project in the form of mortality or injury due to ground-disturbing and vegetation removal activities

within the Project Area. Indirect impacts to rare or special-status wildlife species may occur due to habitat degradation, edge effects, construction noise, and other associated construction activities if present in the areas adjacent to the Project Area. Impacts to special-status wildlife species would be **less than significant** with the implementation of Mitigation Measure **BIO-2** and **BIO-3**. Recommended mitigation measures are presented below in Section 5.0.

4.2.2.1 Raptors and Migratory Birds

The vegetation within the proposed Project and infrastructure adjacent to the site (e.g., utility poles, existing buildings) could provide nesting habitat for nesting birds and raptors protected by the MBTA and California Fish and Game Code, and also provides foraging habitat for songbird and raptor species. If construction of the proposed Project occurs during the bird breeding season (typically February 1 through August 31 for passerines and January 15 through July 31 for raptors), ground-disturbing construction activities could directly affect MBTA-protected birds and their nests through the removal of habitat on the proposed Project, and indirectly through increased noise, ground vibrations, and increased human activity. Implementation of Mitigation Measure **BIO-2** would reduce impacts to a **less than significant** level.

4.3 Wildlife Corridors, Linkages, and Significant Ecological Areas

The proposed Project does not function as a wildlife corridor, linkage, or significant ecological area, therefore there is **no impact** due to the proposed Project.

4.4 Habitat Conservation Plans and Natural Community Conservation Plans

The proposed Project is not located within a HCP or natural community conservation plan area; therefore, the proposed Project does not need to be consistent with these types of plans.

5.0 RECOMMENDATIONS AND MITIGATION MEASURES

The following recommendations have been developed in accordance with the CEQA impacts analysis for the Project but should not be considered mitigation measures at this point in the Project planning process. These actions are recommended prior to Project implementation and would reduce impacts to sensitive biological resources to a less than significant level:

BIO-1 Rare Plant Salvage. Rare plant surveys were conducted within suitable habitat on the proposed Project during the appropriate blooming periods (i.e., between April and October) following sufficient rainfall during the previous wet season for the special-status plant species with potential to occur on or immediately adjacent to the proposed Project. The survey was conducted by a botanist and qualified biologist in accordance with the USFWS General Rare Plant Survey Guidelines (USFWS 2002); the CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities (CDFW 2018); and the CNPS Botanical Survey Guidelines (CNPS 2001). Project related impacts to Nuttall's acmispon are anticipated to be unavoidable, therefore salvage of

seed and donation to a refuge and/or native plant nursery, (e.g. Sweetwater Marsh National Wildlife Refuge and Native West Nursery) is recommended. A qualified biologist shall collect seed from the Nuttall's acmispou during the appropriate time, store under appropriate conditions, and coordinate with the refuge manager in order to apply seed within the refuge boundaries. Seed shall be collected during July 2022 and the subsequent spring (2023), provided that the project has not reached construction phase and the plant is present.

BIO-2 Pre-Construction Survey for Nesting Birds and Special-Status Avian Species. Where feasible, ground-disturbing activities, including vegetation removal, shall be conducted during the non-breeding season (approximately September 1 through January 14) to avoid violations of the MBTA and California Fish and Game Code §§ 3503, 3503.5 and 3513. Several species identified as having potential to nest year-round; therefore, regardless of time of year, a pre-construction survey for nesting birds and special-status avian species shall be conducted by a qualified biologist (experienced in the identification of avian species and conducting nesting bird surveys) if activities with the potential to disrupt nesting birds or special-status avian species are scheduled to occur. The survey shall include the proposed Project and adjacent areas where Project activities have the potential to cause nest failure. The pre-construction survey shall be conducted no more than three days prior to the start of ground-disturbing activities (including vegetation removal) within the bird breeding season. Site preparation and construction activities may begin if no nesting birds or special-status avian species are observed during the survey. If nesting birds or raptors or special-status avian species are found to be present, avoidance or minimization measures shall be implemented to avoid potential proposed Project-related impacts to the species. Avoidance and minimization measures shall be developed by the qualified biologist and may include seasonal work restrictions, additional survey and monitoring requirements, or non-disturbance buffers established around active nests until the biologist has determined that the nesting cycle is completed. The width of non-disturbance buffers established around active nests will be determined by the qualified biologist (300 feet is typically recommended for songbirds and 500 feet is typically recommended for raptors). Once nesting is deemed complete by the qualified biologist as determined through periodic nest monitoring, the non-disturbance buffer will be removed by the qualified biologist and proposed Project work may resume in the area.

BIO-3 Compliance with Section 4150 of California Fish and Game Code. To avoid impacts to bat species, a qualified bat biologist should conduct an appropriate combination of sampling, exit counts, and acoustic surveys to determine if bats are using the palm tree resources in the Project Area. If Project-related impacts to bat species are unavoidable, additional measures may need to be implemented to reduce or eliminate impacts to bat species, including maternity roosts, such as tree removal occurring outside of bat breeding season (October through February) or two-step, two-day removal of palm trees under supervision of a qualified bat biologist.

6.0 ADDITIONAL RECOMMENDATIONS

In addition to implementing the recommended mitigation measures outlined in Section 5.0, ECORP recommends the following best management practices, which are not mitigation measures pursuant to CEQA but recommended to further reduce impacts to special-status species that have potential to occur on the property:

- Confine all work activities to a pre-determined work area. Stay on previously designated roads or, if not possible, create one-way-in and one-way-out roads during construction.
- To prevent inadvertent entrapment of wildlife during the construction phase of the Project, all excavated, steep-walled holes or trenches more than 2 feet deep should be covered at the close of each working day by plywood or similar materials. If the trenches cannot be closed, one or more escape ramps constructed of earthen fill or wooden planks should be installed. Before such holes or trenches are filled, they should be thoroughly inspected for trapped animals.
- Wildlife are often attracted to burrow- or den-like structures such as pipes and may enter stored pipes and become trapped or injured. To prevent wildlife use of these structures, all construction pipes, culverts, or similar structures with a diameter of 4 inches or greater should be capped while stored on the site.
- All food-related trash items such as wrappers, cans, bottles, and food scraps should be disposed of in securely closed containers and removed at least once a week from a construction or Project Area.
- Use of rodenticides and herbicides on the Project should be restricted. This is necessary to prevent primary or secondary poisoning of wildlife and the depletion of prey populations on which they depend. All uses of such compounds should observe label and other restrictions mandated by the USEPA, California Department of Food and Agriculture, and other state and federal legislation. If rodent control must be conducted, zinc phosphide should be used because of a proven lower risk to raptors.

7.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present the data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief. Field work conducted for this assessment was performed by me or under my direct supervision. I certify that I have not signed a non-disclosure or consultant confidentiality agreement with the project applicant or the applicant's representative and that I have no financial interest in the project.

Signed: Caroline Garcia Date: July 13, 2022
Caroline Garcia
Associate III Biologist
ECORP Consulting, Inc.

Under the direction of:

Signed: Josh Corona-Bennett Date: July 13, 2022
Josh Corona-Bennett
Biology Group Manager
Senior Restoration Ecologist/Botanist
ECORP Consulting, Inc.

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LIST OF ATTACHMENTS

Attachment A – Representative Site Photographs

Attachment B – Plant Species Observed

Attachment C – Wildlife Species Observed

Attachment D – Special-Status Plant Potential for Occurrence

Attachment E – Special-Status Wildlife Potential for Occurrence

ATTACHMENT A

Representative Site Photographs



**Photo 1. Developed area within the southern portion of the Project Area, facing north.
March 17, 2022.**



**Photo 2. Disturbed habitat within the southern portion of the Project Area, facing north.
March 17, 2022.**



Photo 3. Disturbed vegetation within a depressional feature at the southern end of the Project Area, facing southeast. March 17, 2022.



Photo 4. Disturbed habitat towards the southern end of the Project Area, adjacent to the Remediation Area, facing northwest. March 17, 2022.



Photo 5. Ornamental vegetation within the Project Area, facing north. March 17, 2022.



Photo 6. Disturbed mulefat thickets with ornamental palms of the Project Area, facing southwest. March 17, 2022.



**Photo 7. Disturbed habitat in the northern portion of the Project Area, facing northeast.
March 17, 2022.**



**Photo 8. Railroad tracks of developed area in the northern portion of the Project Area,
facing north. March 17, 2022.**



Photo 9. Conditions of the Project Area during the focused rare plant survey, facing northwest. June 22, 2022.



Photo 10. Rare plant species, Nuttall's acmispon (*Acmispon prostratus*) located in the southwest portion of the Project Area approximately 25-feet from the railroad tracks, facing west. June 22, 2022.

ATTACHMENT B

Plant Species Observed

Scientific Name	Common Name
VASCULAR PLANTS	
ANGIOSPERMS (DICOTYLEDONS)	
Amaranthaceae	Amaranth Family
<i>Amaranthus albus</i> *	pigweed amaranth
Apiaceae	Carrot Family
<i>Foeniculum vulgare</i> *	sweet fennel
Arecaceae	Palm Family
<i>Washingtonia robusta</i> *	Mexican fan palm
Asteraceae	Sunflower Family
<i>Baccharis pilularis</i>	coyote brush
<i>Baccharis salicifolia</i>	mule fat
<i>Baccharis sarothroides</i>	broom baccharis
<i>Bidens pilosa</i> *	hairy beggarticks
<i>Erigeron bonariensis</i> *	flax-leaved horseweed
<i>Glebionis coronaria</i> *	crown daisy
<i>Heterotheca grandiflora</i>	telegraphweed
<i>Sonchus asper</i> *	prickly sow-thistle
Brassicaceae	Mustard Family
<i>Brassica nigra</i> *	black mustard
<i>Hirschfeldia incana</i> *	short-pod mustard
<i>Lepidium sp.</i> *	peppergrasses
<i>Raphanus sativus</i> *	wild radish
<i>Sisymbrium irio</i> *	London rocket
<i>Sisymbrium orientale</i> *	hedge mustard
Caryophyllaceae	Pink Family
<i>Spergularia bocconi</i> *	Boccone's sand spurry
Chenopodiaceae	Goosefoot Family
<i>Bassia hyssopifolia</i> *	fivehorn bassia
<i>Chenopod sp.</i>	goosefoot
<i>Chenopodium murale</i> *	nettle leaf goosefoot
<i>Salicornia pacifica</i>	pickleweed
<i>Salsola tragus</i> *	Russian thistle
<i>Ricinus communis</i> *	castor bean
Convolvulaceae	Morning-Glory Family
<i>Cressa truxillensis</i> *	alkali weed
Cyperaceae	Sedge Family
<i>Cyperus eragrostis</i>	tall flatsedge
Euphorbaceae	Spurge Family
<i>Euphorbia maculata</i> *	spotted spurge
<i>Euphorbia serpens</i> *	matted sandmat
Fabaceae	Legume Family
<i>Acacia pycnantha</i> *	golden wattle
<i>Acmispon heermannii</i> var. <i>heermannii</i>	Heermann's lotus
<i>Acmispon prostratus</i> ^{1B.1}	Nuttall's acmispon
<i>Lupinus cf. bicolor</i>	bicolor lupine

Attachment B - Plant Species Observed

<i>Medicago polymorpha</i> *	bur clover
<i>Melilotus indicus</i> *	yellow sweet clover
Geraniaceae	Geranium Family
<i>Erodium cicutarium</i> *	red stemmed filaree
Juncaceae	Rush Family
<i>Juncus bufonius</i>	toad rush
Lilaceae	Lily Family
<i>Calochortus macrocarpus</i>	sagebrush mariposa lily
Lythraceae	Loosestrife Family
<i>Lythrum hyssopifolia</i> *	hyssop loosestrife
Malvaceae	Mallow Family
<i>Malva parviflora</i> *	cheeseweed mallow
Oleaceae	Olive Family
<i>Fraxinus</i> sp.	ash
Plantaginaceae	Plantain Family
<i>Kickxia elatine</i> *	sharp leaved fluellin
<i>Plantago lanceolata</i> *	English plantain
Plumbaginaceae	Leadwort Family
<i>Limonium perezii</i> *	sea lavender
Polygonaceae	Buckwheat Family
<i>Polygonum aviculare</i> *	prostrate knotweed
<i>Rumex</i> sp.*	dock
Rosaceae	Rose Family
<i>Rubus</i> sp.*	blackberry
Salicaceae	Willow Family
<i>Salix lasiolepis</i>	arroyo willow
Saururaceae	Lizard's Tail Family
<i>Anemopsis californica</i>	yerba mansa
Solanaceae	Nightshade Family
<i>Datura</i> sp.	Jimson weed
<i>Nicotiana glauca</i> *	tree tobacco
<i>Solanum elaeagnifolium</i> *	silverleaf nightshade
Tamaricaceae	Tamarisk Family
<i>Tamarix</i> sp.*	tamarisk
VASCULAR PLANTS	
ANGIOSPERMS (MONOCOTYLEDONS)	
Poaceae	Grass Family
<i>Avena barbata</i> *	slender wild oat
<i>Bromus diandrus</i> *	ripgut brome
<i>Bromus madritensis</i> ssp. <i>rubens</i> *	red brome
<i>Cenchrus echinatus</i> ^{Watch ; B*}	southern sandbur
<i>Cortaderia selloana</i> *	pampas grass
<i>Cynodon dactylon</i> *	Bermuda grass
<i>Hordeum murinum</i> *	foxtail barley
<i>Schismus</i> sp.*	Mediterranean grass
<i>Setaria viridis</i> *	green bristlegrass

Attachment B - Plant Species Observed

<i>Stipa milacea</i> *	smilo grass
<i>Pennisetum setaceum</i> *	fountain grass
<i>Pennisetum villosum</i> *	feathertop
<i>Polypogon monspeliensis</i> *	rabbitfoot grass

*Indicates plant species that is not native to California.

cf. - From the Latin word *conferre*, indicating that the plant appears to be a particular species but could not be identified to specific epithet due to condition of plant.

California Native Plant Society (CNPS) Rare Plant Ranks:

1B: Plants rare, threatened, and endangered in California and throughout their range.

CNPS Threat Ranks:

0.1: Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat)

Cal-IPC Rating:

Watch: High risk for becoming invasive in the future.

CDFA Rating:

B: A pest of known economic or environmental detriment and, if present in California, it is of limited distribution.

*: An asterisk next to the rating indicates that a plant is included in the CCR Section 4500 list of California State Noxious Weeds.

Sources:

California Natural Diversity Data Base (CDFW 2022)

CNPS Rare and Endangered Plant Inventory (CNPS 2022)

California Invasive Plant Council (Cal-IPC 2022)

California Department of Food and Agriculture (CDFA 2022)

ATTACHMENT C

Wildlife Species Observed

Scientific Name	Common Name
INSECTS	
Apidae	Bees
<i>Apis mellifera</i>	European honeybee (individual + hive)
Coccinellidae	Ladybugs
<i>Coccinellid sp.</i>	ladybug
Crabronidae	Digger Wasps
<i>Bembix sp.</i>	sand wasp
Hesperiidae	Skippers
<i>Lerodea eufala</i>	Eufala skipper
<i>Poanes melane melane</i>	Umber skipper
BIRDS	
Accipitridae	Hawks, Kites, & Eagles
<i>Buteo jamaicensis</i>	red-tailed hawk
Anatidae	Ducks, Geese, and Swans
<i>Anas platyrhynchos</i>	mallard
Columbidae	Pigeons and Doves
<i>Columba livia</i>	rock pigeon
<i>Streptopelia decaocto</i>	Eurasian collared dove
<i>Zenaida macroura</i>	mourning dove
Corvidae	Jays and Crows
<i>Corvus brachyrhynchos</i>	American crow
<i>Corvus corax</i>	common raven
Fringillidae	Finches
<i>Carpodacus mexicanus</i>	house finch
Hirundinidae	Swallows
<i>Stelgidopteryx serripennis</i>	northern rough-winged swallow
Laridae	Seabirds
<i>Larus sp.</i>	gull
<i>Larus occidentalis.</i>	western gull
Mimidae	Mockingbirds and Thrashers
<i>Mimus polyglottos</i>	mockingbird
Psittacidae	True Parrots
<i>Thectocercus acuticaudatus*</i>	blue-crowned parakeet
Trochilidae	Hummingbirds
<i>Archilochus anna</i>	Anna's hummingbird
Tyrannidae	Tyrant Flycatchers
<i>Sayornis nigricans</i>	black phoebe
<i>Sayornis saya</i>	Say's phoebe
<i>Tyrannus vociferans</i>	Cassin's kingbird

*Naturalized within native environments

ATTACHMENT D

Special-Status Plant Potential for Occurrence

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Acmispon prostratus</i> Nuttall's acmispon	USFWS: None CDFW: None CNPS: 1B.1	Mar-Jul (0-10)	Coastal scrub Coastal dunes Sandy soils	Present: This species was present within the Project Area. There have been eight total observations of this species within a 5-mile radius of the Project Area, five of which were recent. The nearest observation was 0.45 miles south of the Project Area in 2011.
<i>Acanthomintha ilicifolia</i> San Diego thorn-mint	USFWS: Threatened CDFW: Endangered CNPS: 1B.1	Apr-Jun (10-960)	Chaparral Coastal scrub Valley and foothill grassland Vernal pools Clay soils; occurs within openings	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species was made in 2014, 4.7 miles east of the Project Area. Two other historic observations of this species have been made within a 5-mile radius of the Project Area, but no other observation records exist.
<i>Adolphia californica</i> California adolphia	USFWS: None CDFW: None CNPS: 2B.1	Dec-May (10-740)	Chaparral Coastal scrub Valley and foothill grasslands Clay soils	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent (2003) observation of this species was found within a 5-mile radius search around Project Area. This observation was 5 miles to the east of the Project Area. Seven additional historic records of this species within 5 miles of the Project exist.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Ambrosia chenopodiifolia</i> San Diego bur-sage	USFWS: None CDFW: None CNPS: 2B.1	Apr-Jun (55-155)	Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. The Project Area does not provide suitable habitat for this species. Two observations of this species, one recent and one historic, exist within 5 miles of the Project Area. The recent observation occurred in 2003 and was 4.5 miles east of The Project Area.
<i>Ambrosia monogyra</i> Singlewhorl burrobrush	USFWS: None CDFW: None CNPS: 2B.2	Aug-Nov (10-500)	Chapparal Sonoran desert scrub Sandy soils	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Three historic observations of this species have been made within a 5-mile radius of the Project Area. The closest observation to the Project Area was in 1999, and was 3.4 miles north of the Project Area.
<i>Ambrosia pumila</i> San Diego ambrosia	USFWS: Endangered CDFW: None CNPS: 1B.1	Apr-Oct (20-415)	Chapparal Coastal scrub Valley and foothill grasslands Vernal pools Sandy and clay soils Disturbed soils Alkaline Areas	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One recent and four historic observations of this species have been made within 5 miles of the Project Area. The closest observation was in 2019 and was 0.71 miles to the east of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Aphanisma blitoides</i> aphanisma	USFWS: None CDFW: None CNPS: 1B.2	Feb-Jun (1-305)	Coastal bluff scrub Coastal dunes Coastal scrub Sandy and gravelly soils	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project.. Two historic observations of this species have been made within a 5-mile radius of the Project Area. The closest of the two observations was made in 1935, and was observed 2 miles to the southwest of the Project Area.
<i>Artemisia palmeri</i> San Diego sagewort	USFWS: None CDFW: None CNPS: 4.2	Feb-Sep (15-915)	Chaparral Coastal scrub Riparian forest Riparian scrub Riparian woodland Mesic, sandy soils	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of The Project Area. This species appeared within a CNPS quadrant database search.
<i>Asplenium vespertinum</i> western spleenwort	USFWS: None CDFW: None CNPS: 4.2	Feb-Jun (180-1000)	Chaparral Cismontane woodland Coastal scrub Rocky soils	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Astragalus deanei</i> Dean's milk-vetch	USFWS: None CDFW: None CNPS: 1B.1	Feb-May (75-695)	Chapparal Cismontane woodland Coastal sage scrub Riparian forest	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic (1963) observation of this species was made 3.9 miles east of the Project Area. No other observations of this species have appeared in a 5-mile radius of the Project Area.
<i>Astragalus tener</i> var. <i>titi</i> coastal dunes milk-vetch	USFWS: Endangered CDFW: Endangered CNPS: 1B.1	Mar-May (1-50)	Coastal bluff scrub Coastal dunes Coastal prairies in mesic soils Vernally mesic areas	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic (1938) observation of this species was made 1.9 miles west of the Project Area. No other observations of this species have appeared in a 5-mile radius of the Project Area.
<i>Atriplex coulteri</i> Coulter's saltbush	USFWS: None CDFW: None CNPS: 1B.2	Mar-Oct (3-460)	Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland Alkaline and clay soils	Presumed Absent: The Project Area provides marginally suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have occurred within 5 miles of the Project Area. The nearest observation was in 2001, and was 1.6 miles to the south of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Atriplex pacifica</i> south coast saltscare	USFWS: None CDFW: None CNPS: 1B.2	Mar-Oct (0-140)	Coastal bluff scrub Coastal dunes Coastal scrub Playas	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species have occurred within 5 miles of the Project Area. The nearest was in 2003, and was 4.3 miles east of the Project Area. There are also four historic observations of the species within a 5-mile radius of the Project Area.
<i>Bahiopsis laciniata</i> San Diego County viguiera	USFWS: None CDFW: None CNPS: 4.3	Feb-Aug (60-750)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Bergerocactus emoryi</i> golden-spined cereus	USFWS: None CDFW: None CNPS: 2B.2	May-Jun (3-395)	Chaparral Closed-cone coniferous forest Coastal scrub Sandy soils	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Bloomeria clevelandii</i> San Diego goldenstar	USFWS: None CDFW: None CNPS: 1B.1	Apr-May (50-465)	Coastal scrub Chaparral Valley and foothill grassland Vernal pools Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has occurred within a 5-mile radius of the Project Area. This observation took place in 1939, and was 4.3 miles northwest of the Project Area.
<i>Camissoniopsis lewisii</i> Lewis' evening-primrose	USFWS: None CDFW: None CNPS: 3.0	Mar-Jun (0-300)	Cismontane woodland Coastal bluff scrub Coastal dunes Coastal scrub Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Ceanothus verrucosus</i> wart-stemmed ceanothus	USFWS: None CDFW: None CNPS: 2B.2	Dec-May (1-380)	Chaparral	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Four recent observations of this species have been made within a 5-mile radius of the Project Area. The closest one was 3.3 miles away, in 2014.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i> Orcutt's pincushion	USFWS: None CDFW: None CNPS: 1B.1	Jan-Aug (0-100)	Sandy soils Coastal bluff scrub Coastal dunes	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have occurred within 5 miles of the Project Area.
<i>Chamaebatia australis</i> southern mountain misery	USFWS: None CDFW: None CNPS: 4.2	Nov-May (300-1020)	Chaparral	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i> salt marsh bird's-beak	USFWS: Endangered CDFW: Endangered CNPS: 1B.2	May-Nov (0-30)	Coastal dunes Coastal salt marshes Swamps	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation (2019) of this species 1.1 miles southeast of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Chorizanthe polygonoides</i> var. <i>longispina</i> long-spined spineflower	USFWS: None CDFW: None CNPS: 1B.2	Apr-Jul (30-1530)	Chaparral Coastal sage scrub Meadows Valley and foothill grassland Vernal pools Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Four recent observations of this species exist within 5-miles of the Project Area. The closest observation is 3.7 miles northwest of the Project Area in 2011.
<i>Convolvulus simulans</i> small-flowered morning-glory	USFWS: None CDFW: None CNPS: 4.2	Mar-Jul (30-740)	Chaparral Coastal scrub Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Corethrogyne filaginifolia</i> var. <i>incana</i> San Diego sand aster	USFWS: None CDFW: None CNPS: 1B.1	Jun-Sep (3-115)	Coastal bluff scrub Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation (2003) and one historic observation of this species have been recorded within a 5-mile radius of the Project Area. The recent observation was 4 miles east of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Cylindropuntia californica</i> var. <i>californica</i> snake cholla	USFWS: None CDFW: None CNPS: 1B.1	Apr-May (30-150)	Chapparal Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations have been made of this species within a 5-mile radius of the Project Area. The closest of these observations is 4.0 miles northwest of the Project Area. There are also seven historic observations of this species within a 5-mile radius of the Project Area.
<i>Deinandra conjugens</i> Otay tarplant	USFWS: Threatened CDFW: Endangered CNPS: 1B.1	Apr-Jun (25-300)	Coastal scrub Valley and foothill grassland Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. There have been five recent observations of this species within a 5-mile radius of the Project Area. The nearest is 3.7 miles east of the Project Area.
<i>Deinandra paniculata</i> paniculate tarplant	USFWS: None CDFW: None CNPS: 4.2	Mar-Nov (25-940)	Coastal scrub Valley and foothill grassland Vernal pools Mesic, sandy soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Dichondra occidentalis</i> western dichondra	USFWS: None CDFW: None CNPS: 4.2	Jan-Jul (50-500)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Dicranostegia orcuttiana</i> Orcutt's bird's-beak	USFWS: None CDFW: None CNPS: 2B.1	Mar-Sep (10-350)	Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Dudleya blochmaniae</i> ssp. <i>blochmaniae</i> Blochman's dudleya	USFWS: None CDFW: None CNPS: 1B.1	Apr-Jun (5-450)	Coastal bluff scrub Chaparral Coastal scrub Valley and foothill grassland Clay soils Rocky and serpentinite conditions	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of the species was found within a 5-mile radius of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Dudleya variegata</i> variegated dudleya	USFWS: None CDFW: None CNPS: 1B.2	Apr-Jun (3-580)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pools Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been recorded within 5-miles of the Project Area. The nearest observation took place in 2018, and was located 3.7 miles east of the Project Area.
<i>Ericameria palmeri</i> var. <i>palmeri</i> Palmer's goldenbush	USFWS: None CDFW: None CNPS: 1B.1	Jul-Nov (30-600)	Chaparral Coastal sage scrub Mesic soils	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species have been recorded within 5 miles of the Project Area. The closest observation was 3.0 miles northeast of the Project Area. There have also been three historic observations of this species within that area.
<i>Eryngium aristulatum</i> var. <i>parishii</i> San Diego button-celery	USFWS: Endangered CDFW: Endangered CNPS: 1B.1	Apr-Jun (20-620)	Coastal scrub Valley and foothill grassland Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Erythranthe diffusa</i> Palomar monkeyflower	USFWS: None CDFW: None CNPS: 4.3	Apr-Jun (1220-1830)	Chaparral Lower montane coniferous forest Gravelly, sandy soils	Presumed Absent: The Project Area provides suitable habitat; however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Euphorbia misera</i> cliff spurge	USFWS: None CDFW: None CNPS: 2B.2	Oct-Aug (10-500)	Coastal bluff scrub Coastal scrub Mojavean desert scrub Rocky soils	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two observations of this species were made within a 5-mile radius of the Project Area. The closest observation was 2.4 miles east of the Project Area.
<i>Ferocactus viridescens</i> San Diego barrel cactus	USFWS: None CDFW: None CNPS: 2B.1	May-Jun (3-450)	Chaparral Coastal scrub Valley and foothill grassland Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Ten recent and seven historic observations of this species exist within a 5-mile radius of the Project Area. The nearest recent observation is 3.6 miles east of the Project Area in 2004.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Frankenia palmeri</i> Palmer's frankenia	USFWS: None CDFW: None CNPS: 2B.1	May-Jul (0-10)	Coastal dunes Coastal salt marshes and swamps Playas	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species is recorded from 2015, 1.5 miles south of the Project Area. There is also one recorded historic observation of this species.
<i>Geothallus tuberosus</i> Campbell's liverwort	USFWS: None CDFW: None CNPS: 1B.1	-- (10-600)	Mesic soils Coastal scrub Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations of this species exist within a 5-mile radius of the Project Area. The nearest recent observation is from 2017, and is 3.9 miles northeast of the Project Area.
<i>Grindelia hallii</i> San Diego gumplant	USFWS: None CDFW: None CNPS: 1B.2	May-Oct (185-1745)	Chaparral Lower montane coniferous forest Meadows and seeps Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Harpagonella palmeri</i> Palmer's grapplinghook	USFWS: None CDFW: None CNPS: 4.2	Mar-May (20-955)	Chaparral Coastal scrub Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Hesperevax caulescens</i> hogwallow starfish	USFWS: None CDFW: None CNPS: 4.2	Mar-Jun (0-505)	Valley and foothill grassland Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i> beach goldenaster	USFWS: None CDFW: None CNPS: 1B.1	Mar-Dec (0-1225)	Coastal chaparral Coastal scrub Coastal dunes	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two recent observations have been made of this species within 5 miles of the Project Area. The closest one was in 2005, and was 1.0 miles south of the Project Area. There have also been three historic observations of this species within a 5-mile radius of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Holocarpha virgata ssp. elongata</i> graceful tarplant	USFWS: None CDFW: None CNPS: 4.2	May-Nov (60-1100)	Chaparral Cismontane woodland Coastal scrub Valley and foothill grassland	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Hordeum intercedens</i> vernal barley	USFWS: None CDFW: None CNPS: 3.2	Mar-Jun (5-1000)	Coastal dunes Coastal scrub Valley and foothill grassland Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Isocoma menziesii var. decumbens</i> decumbent goldenbush	USFWS: None CDFW: None CNPS: 1B.2	Apr-Nov (10-135)	Chaparral Coastal scrub (within disturbed, sandy areas)	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been recorded within 5 miles of the Project Area. The nearest was 1.29 miles east of the Project Area in 2019. Six additional historic observations within a 5-mile radius of Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Iva hayesiana</i> San Diego marsh-elder	USFWS: None CDFW: None CNPS: 2B.2	Apr-Oct (10-500)	Marshes and swamps Playas	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been made within a 5-mile radius of the Project Area. This was 1.4 miles to the north of the Project Area in 2013.
<i>Juncus acutus</i> <i>ssp. leopoldii</i> southwestern spiny rush	USFWS: None CDFW: None CNPS: 4.2	Mar-Jun (3-900)	Coastal dunes Marshes and swamps Meadows and seeps	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Lasthenia glabrata</i> <i>ssp. coulteri</i> Coulter's goldfields	USFWS: None CDFW: None CNPS: 1B.1	Feb-Jun (1-1220)	Coastal salt marshes and swamps Playas Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species have taken place within 5 miles of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Lepidium virginicum</i> var. <i>robinsonii</i> Robinson's pepper-grass	USFWS: None CDFW: None CNPS: 4.3	Jan-Jul (1-885)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations of this species are within a 5-mile search of the Project Area and The Project Area provides suitable habitat.
<i>Leptosyne maritima</i> sea dahlia	USFWS: None CDFW: None CNPS: 2B.2	Mar-May (5-150)	Coastal bluff scrub Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Two historic observations have been made within a 5-mile radius of the Project Area. The closest of which was made in 2001, and was 1.5 miles south of the Project Area.
<i>Lycium californicum</i> California box-thorn	USFWS: None CDFW: None CNPS: 4.2	Mar-Dec (5-150)	Coastal bluff scrub Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Microseris douglasii</i> ssp. <i>platycarpa</i> small-flowered microseris	USFWS: None CDFW: None CNPS: 4.2	Mar-May (15-1070)	Cismontane woodland Coastal scrub Valley and foothill grassland Vernal pools Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Monardella viminea</i> willow monardella	USFWS: Endangered CDFW: Endangered CNPS: 1B.1	Jun-Aug (50-225)	Chaparral Coastal scrub Riparian forest Riparian scrub Riparian woodland Alluvial terraces and washes	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Nama stenocarpa</i> mud nama	USFWS: None CDFW: None CNPS: 2B.2	Jan-Jul (5-500)	Swamps and marshes Lake margins and riverbanks	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Navarretia prostrata</i> prostrate vernal pool navarretia	USFWS: None CDFW: None CNPS: 1B.2	Apr-Jul (3-1210)	Coastal scrub Meadows and seeps Valley and foothill grassland Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Nemacaulis denudata</i> var. <i>denudata</i> coast woolly-heads	USFWS: None CDFW: None CNPS: 1B.2	Apr-Sep (0-100)	Coastal dunes	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Six recent observations have been made within 5 miles of the Project Area. The closest observation was 0.86 miles south of the Project Area. There are also three recorded historic observations of this species.
<i>Nemacaulis denudata</i> var. <i>gracilis</i> slender cottonheads	USFWS: None CDFW: None CNPS: 2B.2	Mar-May (-50-400)	Coastal dunes Desert dunes Sonoran desert scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Orobanche parishii</i> ssp. <i>brachyloba</i> short-lobed broomrape	USFWS: None CDFW: None CNPS: 4.2	Apr-Oct (3-305)	Coastal bluff scrub Coastal dunes Coastal scrub Sandy soils	Presumed Absent: The Project Area does provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Phacelia stellaris</i> Brand's star phacelia	USFWS: None CDFW: None CNPS: 1B.1	Mar-Jun (1-400)	Coastal dunes Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been recorded 2.1 miles southwest of the Project Area in 2012.
<i>Pogogyne abramsii</i> San Diego mesa mint	USFWS: Endangered CDFW: Endangered CNPS: 1B.1	Mar-Jul (90-200)	Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Pogogyne nudiuscula</i> Otay Mesa mint	USFWS: Endangered CDFW: Endangered CNPS: 1B.1	May-Jul (90-250)	Vernal pools	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Quercus dumosa</i> Nuttall's scrub oak	USFWS: None CDFW: None CNPS: 1B.1	Feb-Aug (15-400)	Closed-cone coniferous forest Chaparral Coastal scrub Sandy, clay loam soils	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. There have been six recent observations of this species within a 5-mile radius of the Project Area. The closest observation was 3.4 miles north of the Project Area in 2006.
<i>Salvia munzii</i> Munz's sage	USFWS: None CDFW: None CNPS: 2B.2	Feb-Apr (115-1065)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Selaginella cinerascens</i> ashy spike-moss	USFWS: None CDFW: None CNPS: 4.1	--- (20-640)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Senecio aphanactis</i> chaparral ragwort	USFWS: None CDFW: None CNPS: 2B.2	Jan-May 15-800	Coastal scrub Cismontane woodland Chaparral	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Sphaerocarpos drewiae</i> bottle liverwort	USFWS: None CDFW: None CNPS: 1B.1	--- (90-600)	Chaparral Coastal Scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. One recent observation of this species has been recorded within 5 miles of the Project Area. That observation was made in 2017, and was 3.8 miles northeast of the Project Area.
<i>Stemodia durantifolia</i> purple stemodia	USFWS: None CDFW: None CNPS: 2B.1	Jan-Dec (180-300)	Sonoran desert scrub Mesic and sandy soils	Presumed Absent: The Project Area provide suitable habitat for this species; however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Stipa diegoensis</i> San Diego County needle grass	USFWS: None CDFW: None CNPS: 4.2	Feb-Jun (10-800)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Streptanthus bernardinus</i> Laguna Mountains jewelflower	USFWS: None CDFW: None CNPS: 4.3	May-Aug (670-2500)	Chaparral Lower montane coniferous forest	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
<i>Stylocline citroleum</i> oil neststraw	USFWS: None CDFW: None CNPS: 1B.1	Mar-Apr (50-400)	Chenopod scrub Coastal scrub Valley and foothill grassland Clay soils	Presumed Absent: The Project Area provides marginally suitable habitat (human-made depression); however, this species was not observed during focused rare plant surveys conducted for the Project. One historic observation of this species has been recorded within 5 miles of the Project Area.
<i>Suaeda esteroa</i> estuary seablite	USFWS: None CDFW: None CNPS: 1B.2	Jan-Oct (0-5)	Coastal salt marsh Swamps	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. Three recent observations of this species have been made within a 5-mile radius of the Project Area. The nearest was in 2004, during which an individual was seen 0.99 miles south of the Project Area. There are also four historic observations of this species on file.

Scientific Name Common Name	Status	Flowering Period/ Elevation Range (meters)	Habitat	Potential to Occur in the Project Area
<i>Tetracoccus dioicus</i> Parry's tetracoccus	USFWS: None CDFW: None CNPS: 1B.2	Apr-May (165-1000)	Chaparral Coastal scrub	Presumed Absent: The Project Area does not provide suitable habitat for this species and this species was not observed during focused rare plant surveys conducted for the Project. No records of this species are within 5 miles of the Project Area. This species appeared within a CNPS quadrant database search.
California Native Plant Society (CNPS) Designations: 1A: Plants presumed extinct in California. 1B: Plants rare and endangered in CA and throughout their range. 2: Plants rare, threatened, or endangered in CA but more common elsewhere in their range. 3: Plants about which need more information; a review list. 4: Plants of limited distribution; a watch list. Plants 1B, 2, and 4 extension meanings: .1 Seriously endangered in CA (over 80% of occurrences threatened / high degree and immediacy of threat) .2 Fairly endangered in California (20-80% occurrences threatened) .3 Not very endangered in CA (<20% of occurrences threatened or no current threats known)				
Sources: California Natural Diversity Data Base (CDFW 2022a), California Native Plant Society Electronic Inventory (CNPS 2022)				

Special-Status Wildlife Potential for Occurrence

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
INSECTS			
<i>Danaus plexippus</i> monarch - California overwintering population	USFWS: CAN CDFW: None	Roosts in wind-protected tree groves (coastal California conifer and eucalyptus) from Northern Mendocino to Baja California. Very high site fidelity.	Low: Suitable habitat is not present for this species within the BSA. Four recent records are recorded within 5 miles of the Project Area, with the closest being approximately 1.5 miles southeast from the Project Area in 2014.
<i>Euphydryas editha quino</i> quino checkerspot butterfly	USFWS: END CDFW: None	Openings within chaparral and coastal sage scrublands in Riverside and San Diego Counties.	Presumed Absent: Suitable habitat is not present for this species within the BSA. No observations have been recorded within 5 miles of the Project Area.
<i>Panoquina errans</i> salt marsh skipper	USFWS: None CDFW: None	Coastal salt and brackish marshes, occasionally nearby fields and wood edges.	Low: Suitable habitat is not present for this species within the BSA. One recent observation is recorded within 5 miles of the Project Area. This observation was in 2005 and was approximately 5 miles west of the Project Area.
CRUSTACEANS			
<i>Branchinecta sandiegonensis</i> San Diego fairy shrimp	USFWS: END CDFW: None	Restricted to vernal and shallow ephemeral basins in Orange and San Diego Counties.	Presumed Absent: Suitable habitat is not present for this species within the BSA due to lack of vernal pools. One recent record has occurred less than 5 miles south of the Project Area from 2011.
<i>Streptocephalus woottoni</i> Riverside fairy shrimp	USFWS: END CDFW: None	Occurs in deeper, long-lived vernal pools, tectonic swales, and earth slump basins in southern California.	Presumed Absent: Suitable habitat is not present for this species within the BSA due to lack of vernal pools. No observations have been recorded within 5 miles of the Project Area.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
AMPHIBIANS			
Spea hammondi western spadefoot	USFWS: None CDFW: SSC	Prefers open areas with sandy or gravely soils, requires rain pools free of bullfrogs and crayfish for breeding.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Three historic observations of this species have been recorded within 5 miles of the Project Area.
REPTILES			
Anniella stebbinsi southern California legless lizard	USFWS: None CDFW: SSC	Moist, loose soil is essential. Occurs in sparsely vegetated areas of beach dunes, chaparral, pine-oak woodlands, desert scrub, sandy washes, and stream terraces with sycamores, cottonwoods, or oaks.	Low: Limited suitable habitat occurs within the BSA. Four recent records of eight total occur within 5 miles of the site, with the closest being approximately 1-2 miles south of the Project site in 2018.
Arizona elegans occidentalis California glossy snake	USFWS: None CDFW: SSC	Loose soils preferred. Arid scrub, rocky washes, grasslands, and chaparral habitats.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record has occurred within 5 miles of the site.
Aspidoscelis hyperythra orange-throated whiptail	USFWS: None CDFW: WL	Semi-arid brushy areas typically with loose soil and rocks, including washes, stream sides and coastal chaparral.	Low: Limited suitable habitat occurs within the BSA. The Project Area occurs within the known range. One recent and four historic records occur within 5 miles of the Project Area with the recent record being approximately 3-4 miles north of the Project Area from 2004.
Chelonia mydas green sea turtle	USFWS: THR CDFW: None	Inhabits tropical and subtropical coastal waters.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One recent observation of this species exists within 5 miles of the Project Area. It occurred in 2009, and the individual was less than 2 miles south of the Project Area within the bay.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Masticophis fuliginosus</i> Baja California coachwhip	USFWS: None CDFW: SSC	Inhabits scrub, coastal sand dunes, grasslands, marshlands, rocky arroyos, and desert flats of southern San Diego County and Baja California.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic observation recorded within 5 miles of the Project Area.
<i>Phrynosoma blainvillii</i> coast horned lizard	USFWS: None CDFW: SSC	Inhabits open areas with sandy soils and low vegetation.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Two historic records occur within 5 miles of the Project Area.
<i>Thamnophis hammondi</i> two-striped gartersnake	USFWS: None CDFW: SSC	Found near water sources, such as pools, creeks, and riparian areas. Associated with oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic observation of this species has been recorded within 5 miles of the Project Area.
BIRDS			
<i>Agelaius tricolor</i> tricolored blackbird (nesting colony)	USFWS: CAN END CDFW: THR	Inhabits cattails and large freshwater marshes.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.
<i>Athene cunicularia</i> burrowing owl	USFWS: None CDFW: SSC	Prefers open, sparsely vegetated scrublands and grasslands with burrowing mammals present for burrow construction.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Four historic records of this species occur within 5 miles of the Project Area.
<i>Buteo swainsoni</i> Swainson's hawk (nesting)	USFWS: None CDFW: THR	This species inhabits open habitat such as shrublands, deserts, croplands, and herbaceous grasslands. Often found in habitats within close proximity to riparian areas.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Campylorhynchus brunneicapillus sandiegensis</i> coastal cactus wren	USFWS: BCC CDFW: SSC	Coastal sage scrub with tall opuntia cacti. Nests in opuntia cactus.	Low: Suitable habitat is not present for this species within the BSA. One recent record and four historic records of this species exist within 5 miles of the Project Area. The recent record is from 2017 and was located approximately 3 miles northeast of the Project Area.
<i>Charadrius nivosus</i> western snowy plover (nesting)	USFWS: BCC CDFW: SSC	Beaches, coastal dunes, coastal strand.	Low: Suitable habitat is not present for this species within the BSA. Two recent and three historic records have occurred within 5 miles of the Project Area. The nearer recent observation was made in 2015 and was approximately 2 miles west of the Project Area.
<i>Empidonax traillii extimus</i> southwestern willow flycatcher (nesting)	USFWS: END CDFW: END	Riparian woodlands particularly with willow thickets. Nests in densest areas of shrubs and trees with low-density canopies.	Presumed Absent: Suitable habitat is not present for this species within the BSA. No observations have been recorded within 5 miles of the Project Area.
<i>Falco peregrinus anatum</i> American peregrine falcon (nesting)	USFWS: BCC CDFW: FP	Open woodland and fragmented forests. Also found in grasslands, marshes, deserts, lakes, fields, along the coast.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.
<i>Laterallus jamaicensis coturniculus</i> California black rail	USFWS: None CDFW: THR, FP	Inhabits marshes along the coast and inland.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Three historic observations are recorded within 5 miles of the Project Area.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Pandion haliaetus</i> osprey (nesting)	USFWS: None CDFW: WL	Near shallow water bodies including lakes, reservoirs, and swamps with fish but also along the coast. Nests in tall trees, on cliffs, or on man-made structures.	Moderate: There is suitable foraging and nesting habitat for this species within the buffer of the Project Area but not within the Project Area itself. One osprey was observed flying over the vicinity to the west during the reconnaissance survey. Five recent observations of this species have been recorded within 5 miles of the Project Area. The closest was approximately less than 1 mile south of the Project Area in 2019.
<i>Passerculus sandwichensis beldingi</i> Belding's savannah sparrow	USFWS: None CDFW: END	Grasslands, meadows, tidal saltmarshes, estuaries.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Six historical observations of this species exist within 5 miles of the Project Area. The nearest was 0.4 miles southeast of the Project Area in 2001.
<i>Polioptila californica</i> coastal California gnatcatcher	USFWS: THR CDFW: SSC	Inhabits coastal sage scrub habitat less than 3000' in elevation along the coast.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Ten recent records of twelve total occur within 5 miles of the Project Area with the closest recent record occurring approximately 3 miles northeast of the Project Area in 2015.
<i>Rallus longirostris levipes</i> light-footed Ridgway's rail	USFWS: END CDFW: END	Inhabits salt and brackish marshes.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Six recent records of eight total occur within 5 miles of the Project Area, with the closest being less than 1 mile southeast of the Project Area in 2007.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Setophaga petechia</i> yellow warbler (nesting)	USFWS: BCC CDFW: SSC	Riparian woodlands especially with willows, open scrub, gardens, and thickets often near water.	Low: Limited suitable habitat is present within the BSA. One recent observation of this species was recorded approximately 4 miles southeast of the Project Area in 2017.
<i>Sternula antillarum browni</i> California least tern (nesting colony)	USFWS: END CDFW: END	Inhabits beaches, mudflats, and sand dunes, typically near lagoons or shallow estuaries near the ocean. They roost on the ground in unprotected areas of the coastal environment.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One recent and six historic observations of this species have been recorded within 5 miles of the Project Area. The nearest was approximately 2 miles west of the Project Area in 2015.
<i>Vireo bellii pusillus</i> least Bell's vireo (nesting)	USFWS: END CDFW: END	Inhabits dense, low shrubby vegetation, generally early successional stages in riparian areas, often near water in arid regions.	Low: Suitable habitat is not present for this species within the BSA. Two recent records occur within 5 miles of the Project Area, with the closest occurrence being approximately 1.5 miles east of the Project Area in 2010. There is also an additional historical observation recorded within 5 miles of the Project Area.
MAMMALS			
<i>Antrozous pallidus</i> pallid bat	USFWS: None CDFW: SSC	Inhabits arid regions with rocky outcroppings, to open, sparsely vegetated grasslands. Water must be available.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Choeronycteris Mexicana</i> Mexican long-tongued bat	USFWS: None CDFW: SSC	Typically roosts in caves, can additionally be found in attics, under bridges, and in abandoned buildings.	Low: Suitable habitat is not present for this species within the BSA. One recent and three historic records of this species have occurred within 5 miles of the Project Area. The recent observation was made in 2002 and was located approximately 3.5 miles south of the Project Area.
<i>Eumops perotis californicus</i> western mastiff bat	USFWS: None CDFW: SSC	Roosts high above ground in rock and cliff crevices, shallow caves, and rarely in buildings. Occurs in arid and semiarid regions including rocky canyon habitats.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Two historic observations are recorded within 5 miles of the Project Area.
<i>Lasiurus xanthinus</i> western yellow bat	USFWS: None CDFW: SSC	Prefers regions dominated by pasture or croplands, often roosts in trees with an affinity for roosting under palm tree fronds.	Moderate: Potential roosting habitat is present within the Project Area and the buffer in the palm trees. Foraging habitat within the vicinity is of lower quality. One historic record occurs within 5 miles of the Project Area.
<i>Nyctinomops femorosaccus</i> pocketed free-tailed bat	USFWS: None CDFW: SSC	During dry season, utilizes water sources with large available surfaces. Roosts in caves, rock crevices and cliff faces.	Presumed Absent: Suitable habitat is not present for this species within the BSA. Three historic observations are recorded within 5 miles of the Project Area.
<i>Nyctinomops macrotis</i> big free-tailed bat	USFWS: None CDFW: SSC	This species is a seasonal migrant, sometimes found in urban areas. Occurs in rocky areas of rugged and hilly country including woodlands, evergreen forests, river floodplain-arroyo habitats, and desert scrub.	Presumed Absent: Suitable habitat is not present for this species within the BSA. One historic record occurs within 5 miles of the Project Area.

Scientific Name Common Name	Status	Habitat Preferences	Potential for Occurrence
<i>Prognathous longimembris pacificus</i> Pacific pocket mouse	USFWS: END CDFW: SSC	Inhabits sandy substrates of coastal sage scrub, coastal dunes, and alluvial plains of marine terraces.	Presumed Absent: Suitable habitat is not present for this species within the BSA. No CNDDDB records occur for this species within 5 miles of the Project Area. The Project is within the historical range of the species but the closest extant population of the species is approximately 55 miles north of the Project Area at Marine Corps Base Camp Pendleton.
Federal Designations (Federal Endangered Species Act, U.S. Fish and Wildlife Service [USFWS]) END: Federally listed, endangered THR: Federally listed, threatened CAN: Federal candidate for listing BCC: Bird of Conservation Concern State Designations (California Endangered Species Act, California Department of Fish and Wildlife [CDFW]) END: State-listed, endangered THR: State-listed, threatened SSC: California Species of Special Concern CAN: State candidate for listing FP: Fully Protected WL: Watch List			
Sources: California Natural Diversity Data Base (CDFW 2022a), Special Animals List (CDFW 2022b), State and Federally Listed Endangered and Threatened Animals of California (CDFW 2022c), IPAC Trust Resources List (USFWS 2022b)			

APPENDIX C

Aquatic Resources Delineation

Aquatic Resources Delineation for the San Diego Clean Fuels Facility LLC Project

National City, California

Lead Agency:

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LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
BNSF	Burlington Northern Santa Fe
CCA	California Coastal Act
CCC	California Coastal Commission
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CFR	Code of Federal Regulations
CNPS	California Native Plant Society
CWA	Clean Water Act
DA	Delineation Area
ESHA	Environmentally Sensitive Habitat Areas
ESRI	Environmental Systems Research Institute Inc.
GIS	Geographic Information System
GPS	Global Positioning System
JD	Jurisdictional Determination
LCPs	Local Coastal Programs
NOAA	National Oceanic and Atmospheric Administration
NRCS	Natural Resources Conservation Service
NWI	National Wetlands Inventory
OHWM	Ordinary high water mark
Procedures	Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State
Project	USD Clean Fuels Transloading Facility
ROW	Right-of-way
RWQCB	Regional Water Quality Control Board
SAA	Streambed Alteration Agreement
SWQB	Surface Water Quality Bureau
TNW	Traditional Navigable Waters
TOB	Top of bank
USACE	U.S. Army Corps of Engineers

LIST OF ACRONYMS AND ABBREVIATIONS

Term	Description
USC	U.S. Code
USD-CF	USD Clean Fuels
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 INTRODUCTION

USD Clean Fuels (USD-CF) proposes to construct a transloading facility on the Burlington Northern Santa Fe (BNSF) Railway railroad right-of-way (ROW) located between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks, and between Civic Center Drive and W. 19th Street in National City, California (Project). This document provides the results of a wetlands study, consisting of a jurisdictional delineation, depicting limits of waters of the state and waters of the U.S. at the Project location.

This report provides a summary of aquatic resources regulated pursuant to Section 401 and 404 of the Clean Water Act (CWA), Section 1600 et al. of the California Fish and Game Code, and the Porter-Cologne Water Quality Control Act that occur within the Delineation Area (DA). Because the Project is located within 1 mile of the Pacific Ocean coastline, this report also discusses aquatic resources pursuant to the definitions of the California Coastal Commission (CCC). The DA used in this report includes client-provided Project boundaries (Project Area) as well as a 50-foot buffer. The information presented in this report provides data required by the U.S. Army Corps of Engineers (USACE) Los Angeles District's *Minimum Standards for Acceptance of Aquatic Resources Delineation Reports* (USACE 2017). All aquatic resources areas shown in exhibits in this report are for the purposes of the USACE, California Department of Fish and Wildlife (CDFW), Regional Water Quality Control Board (RWQCB) and the CCC and are subject to modification following agency verification.

1.1 Project Description

USD-CF proposes to construct a transloading facility on the BNSF Railway railroad ROW located between the existing buildings along Cleveland Avenue and the existing BNSF Railway tracks, and between Harbor Drive and W. 19th Street in National City, California. The new terminal facility will add nine rail spurs and five fixed truck loading spots to transload biodiesel fuel, renewable diesel fuel, and either ethanol or sustainable aviation fuel directly from rail cars into trucks. The Proposed Project consists of the following improvements: build tracks and turnouts/crossovers to facilitate car movement in/out and within the transload facility, install concrete slab pump pads at each transload spot, install truck load slabs sloped to a drain in the center at each transload spot, install pumps and piping to move fuels from rail cars to truck loading spots, provide a concrete-lined containment basin and pipe each load slab drain to the basin, provide track pans for containment at the rail transloading cars, provide a kiosk for driver check-in and Bill of Lading printing, provide temporary restroom facilities for driver use, provide all-weather (gravel) paving for the facility and circulation, and provide lighting for the site as needed.

1.2 Location and Setting

The Project Area is approximately 10.9 acres (473,075.7 square feet) and is disturbed by former uses for railroad and industrial purposes, but otherwise unimproved and undeveloped. A portion of the site contains four closed release cases and one open release case is located on the adjoining/adjacent properties (Remediation Area). The open remediation case is associated with the Pacific Steel, Inc. property located adjacent and east of the site. The Project Area is located in the Medium Industrial zone within the Coastal Zone overlay.

The Proposed Project is located entirely within the National City Municipal Boundary in San Diego County, California. As depicted on the U.S. Geological Survey (USGS) 7.5-minute National City, CA topographic quadrangle, the Project is located within an un-sectioned portion of the La Nacion Land Grant of Township 17 South, Range 2 West, San Bernardino Base and Meridian (Figure 1). The Proposed Project is located at the northeastern corner of the intersection of W. 19th Street and the existing BNSF double tracks, approximately 500 feet west of Interstate 5 and 2,000 feet east of the Pacific Ocean. A summary of geographic information is provided in Table 1.

Table 1. Project Area Location						
County	Delineation Area	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Project Area Acreage	Delineation Area Acreage	Assessor Parcel Numbers within Project Area
San Diego	Project Area plus 50-foot buffer	32.666320	-117.113687	10.86	17.13	5590405700, 5590404600, 5590400402, 5590760400, 5550900200, 5550900100, 5590760200, 5590760300, 5590911100, 5590910300, 5590405300, 5590511000, 5590911400, 5590403201, 5590101400, 5590101300, 5590100500, 5590100400, 5590100900, 5590560300, 5590405200, 5590403202, 5590511100, 5590404800, 5590510400, 5590404700, 5590760600, 5590100800, 5590405800, 5590710400, 5590400401, 5590760500, 5590760100

2.0 REGULATORY SETTING

2.1 Clean Water Act

The USACE regulates discharge of dredged or fill material into waters of the U.S. under Section 404 of the CWA. *Discharges of fill material* is defined as the addition of fill material into waters of the U.S., including, but not limited to the following: placement of fill necessary for the construction of any structure, or impoundment requiring rock, sand, dirt, or other material for its construction; site development fills for recreational, industrial, commercial, residential, and other uses; causeways or road fills; and fill for intake and outfall pipes, and subaqueous utility lines [33 Code of Federal Regulations (CFR) § 328.2(f)]. In addition, Section 401 of the CWA (33 U.S. Code [USC] 1341) is regulated by the RWQCB and requires any applicant for a federal license or permit to conduct any activity that may result in a discharge of a pollutant into waters of the U.S. to obtain a certification that the discharge will comply with the applicable effluent limitations and water quality standards. Section 401 Certification “gives states and authorized

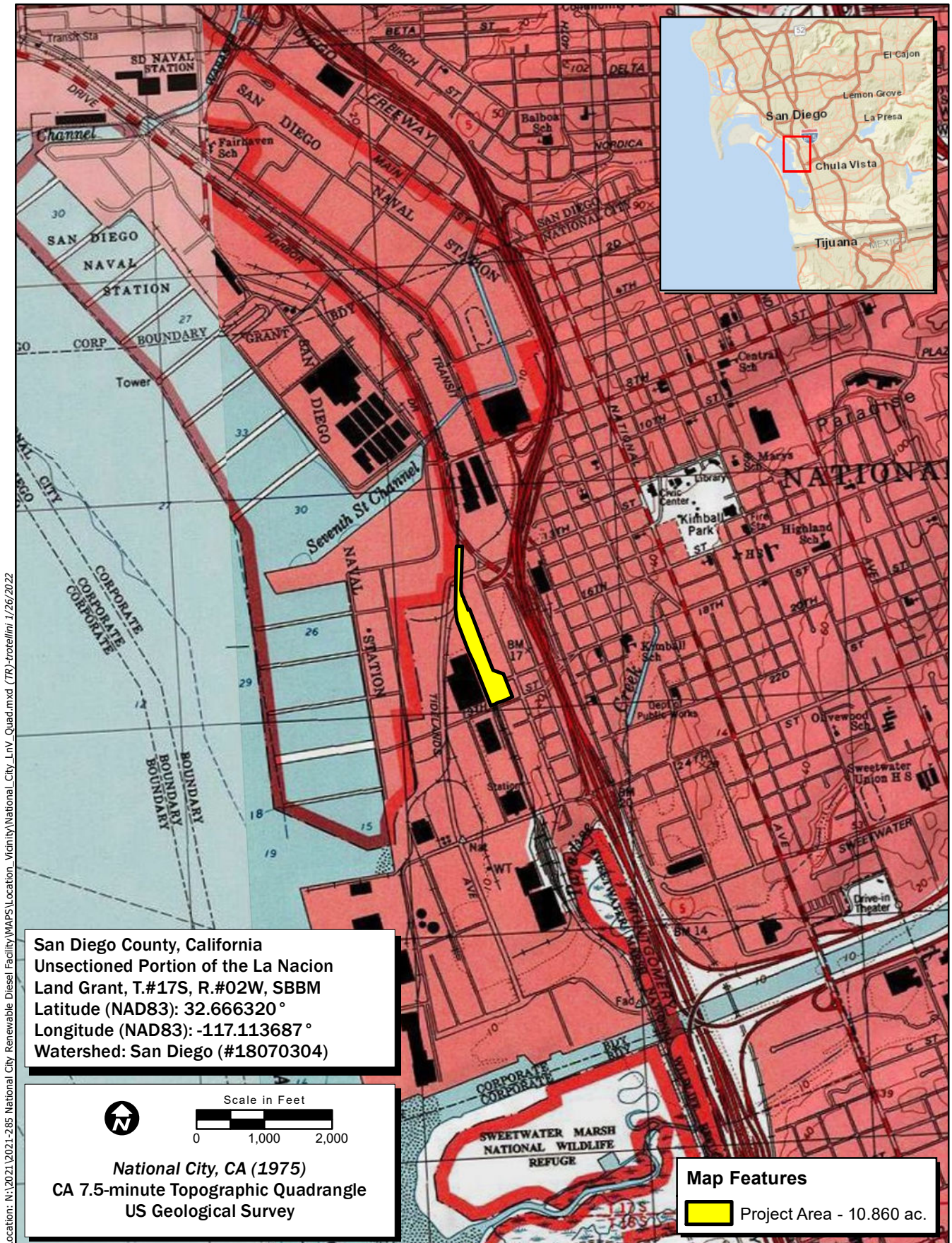


Figure 1. Project Location and Vicinity

2021-285 San Diego Clean Fuels Facility LLC Project

tribes the authority to grant or waive certification of proposed federal licenses or permits that may discharge into waters of the US" (33 USC 1251).

On June 22, 2020, the Navigable Waters Protection Rule, published by the U.S. Environmental Protection Agency (USEPA) and the USACE, became the effective definition of waters of the United States. However this rule was vacated in August 2021. On December 7, 2021, the USEPA and USACE announced a proposed rule to revise the definition of "waters of the United States." This proposal would return to the pre-2015 definitions of waters of the U.S. The proposed rule was open for public comment until February 7, 2022. The final rule has not yet been issued.

In the 2015 USACE/USEPA CWA regulations (33 CFR 328.3[a]), the term "waters of the U.S." is defined as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect interstate or foreign commerce including any such waters: (i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or (ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (iii) Which are used or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the U.S. under the definition;
5. Tributaries of waters identified in paragraphs (a)(1)-(4) of this section;
6. The territorial seas;
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in 1-6 above

2.2 Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the State to file a report of discharge" with the RWQCB through State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (Procedures) (California Code of Regulations [CCR], title 23, § 3855) (State Water Resources Control Board 2021). *Waters of the State* is defined as any surface water or groundwater, including saline waters, within the boundaries of the state (California Water Code § 13050[e]). Pollution is defined as an alteration of the quality of the waters of the State by waste to a degree that unreasonably affects its beneficial uses (California Water Code § 13050) and includes filling in waters of the State. Note that CCR, title 23, § 3855 applies only to individual water quality certifications, but the new Procedures

extend the application of § 3855 to individual waste discharge requirements for discharges of dredged or fill material to waters of the State and waivers thereof.

A permit for impacts to waters of the State would likely be required under the CWA and/or Porter-Cologne Water Quality Control Act. To determine whether a project should be regulated pursuant to the Porter-Cologne Water Quality Control Act, the RWQCB considers whether project activities could impact the quality of waters of the State.

2.3 California Fish and Game Code Section 1602

Pursuant to Section 1602 of the California Fish and Game Code, a Streambed Alteration Agreement (SAA) application must be submitted for “any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake” (CDFW 2021). In Title 14 of the CCR, Section 1.72, the CDFW defines a *stream* (including creeks and rivers) as “a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation.”

The CDFW’s jurisdiction includes drainages with a definable bed, bank, or channel with the jurisdictional limit being the top of bank (TOB). It also includes areas that support intermittent, perennial, or subsurface flows; supports fish or other aquatic life; or supports riparian or hydrophytic vegetation. It also includes areas that have a hydrologic source.

The CDFW will determine if the proposed actions will result in diversion, obstruction, or change of the natural flow, bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. The CDFW will submit a SAA that includes measures to protect affected fish and wildlife resources; this SAA is the final proposal agreed upon by the CDFW and the applicant.

2.4 Coastal Zone Management Act

The Coastal Zone Management Act was passed in 1972 to provide incentives for states and local governments to create diverse planning and protection of coastal natural resources through laws and management programs as stated:

...to encourage and assist the states to exercise effectively their responsibilities in the coastal zone through the development and implementation of the land and water resources of the coastal zone, giving full consideration to ecological, cultural, historic, and esthetic values as well and the needs for compatible economic development programs (16 USC 1452(2)).

2.5 California Coastal Act

The California Coastal Act of 1976 (CCA) is administered by the CCC and was created with guidance from the California Coastal Plan to protect natural coastal resources, enhance public access to the coast, and balance conservation and development. The CCA applies to the government, businesses, and private individuals and regulates all land and water uses from the high tide line of the California coastal out to 3 nautical miles inland, except for the San Francisco Bay. Local governments serve as the regulatory agency

within the boundaries of their jurisdiction and are also responsible for creating Local Coastal Programs (LCPs) to guide coastal planning, development, and conservation as well as issuing permits. The CCC operates under the federal Coastal Zone Management Act and reviews LCPs for approval.

The CCA protects important coastal biological resources including wetlands, riparian habitats and other areas defined as Environmentally Sensitive Habitat Areas (ESHA) by the CCC in accordance with the CCA. The Coastal Act Section 30107.5 defines an ESHA as:

...any area in which plant or animal life or their habitats are either rare or especially valuable because of their special nature or role in an ecosystem and which could be easily disturbed or degraded by human activities and developments.

Designation as ESHA is determined on a site by site basis by the CCC. Some nonwetland riparian areas may be so limited in size, degraded, or isolated that they do not meet the minimum threshold under the CCA.

It is also important to note, the CCC criteria for wetlands varies from USACE and CDFW. The CCC's wetland definition, taken from the California Code of Regulations Title 14, states:

Wetlands are lands where the water table is at, near, or above the land surface long enough to promote the formation of hydric soils or to support the growth of hydrophytes, and shall also include those types of wetlands where vegetation is lacking and soil is poorly developed or absent as a result of frequent or drastic fluctuations of surface water levels, wave action, water flow, turbidity or high concentrations of salt or other substance in the substrate. Such wetlands can be recognized by the presence of surface water or saturated substrate at some time during each year and their location within, or adjacent to, vegetated wetlands or deepwater habitats (14 CCR Section 13577).

The presence of any one of three wetland indicators (hydrology, hydrophytes, or hydric soils) potentially qualifies an area as a wetland, pursuant to the CCC's definition. Furthermore, the CCC establishes the upland limit of a wetland as:

- (1) the boundary between land with predominantly hydrophytic cover and land with predominantly mesophytic or xerophytic cover*
- (2) the boundary between soil that is predominantly hydric and soil that is predominantly non-hydric; or*
- (3) in the case of wetlands without vegetation or soils, the boundary between land that is flooded or saturated at some time during years of normal precipitation, and land that is not (14 CCR Section 13577).*

The CCC's determination of the presence of a "One Parameter Wetland" typically follows the methods contained USACE 1987 Wetland Delineation Manual and, more recently, the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region, which for federal wetlands requires the presence of wetlands hydrology, hydric soils, and a predominance of hydrophytic vegetation. As noted, while the CCC relies on the federal manuals to establish the presence of any of the three

parameters, typically the presence of a single parameter (e.g., a predominance of wetland vegetation) is sufficient for the CCC to make a presumptive finding for the presence of wetlands.

The 1981 CCC Statewide Interpretive Guidelines define riparian habitat as follows:

A “riparian habitat” is an area of riparian vegetation. This vegetation is an association of plant species which grows adjacent to freshwater watercourses, including perennial and intermittent streams, lakes, and other bodies of freshwater.

3.0 METHODS

3.1 Pre-Survey Investigations

The following resources were reviewed prior to conducting a portion of the field delineations to identify potentially jurisdictional areas: aerial imagery (Environmental Systems Research Institute Inc. [ESRI] 2022; Google Earth 2021), topographic maps, the National Wetlands Database, the online Web Soil Survey (Natural Resources Conservation Service [NRCS] 2022a), and a hydric soils list for the area. The aerial imagery was used to digitize potential aquatic features using ArcGIS™. The imagery was analyzed during a preliminary desktop delineation effort to identify differences in vegetative cover, the presence of breaks in a slope, and other areas of potential water disturbance. The aerial imagery, combined with these other resources, was used to create a map with features that required further study during the field investigation. Field maps were produced at a scale of 1:1000. A data dictionary was developed using the criteria in the datasheet for the identification of the ordinary high-water mark (OHWM) in arid west regions and identification of State-regulated habitat using the ArcGIS suite software.

3.2 Field Survey Investigation

This Aquatic Resources Delineation was conducted in accordance with the *Corps of Engineers Wetlands Delineation Manual* (Environmental Laboratory 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (USACE 2008a), *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (OHWM Guide; USACE 2008b), the *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States* (USACE 2010), and the State of New Mexico’s *Hydrology Protocol for the Determination of Ephemeral, Intermittent, and Perennial Waters* (Surface Water Quality Bureau [SWQB] 2010). Environmental Systems Research Institute Inc. (ESRI®) and Google Earth aerial imagery were used to assist with mapping and ground-truthing (ESRI 2021; Google Earth 2021). The Web Soil Survey (NRCS 2022a) was used to aid in identifying hydric soils. The Jepson Manual, 2nd Edition (Baldwin et al. 2012) and the USACE National Wetland Plant List (USACE 2018) were used for plant nomenclature and identification.

ECORP Consulting, Inc. delineation specialists Christina Torres, Caroline Garcia, and Kirsten Zornado conducted the field survey on March 17, 2022 by visually surveying the entire DA. As previously mentioned, the DA used for this study is the location of all proposed culvert improvements plus a 50-foot buffer. Where jurisdictional features were present, the extent of potential waters of the U.S. limits were delineated using the OHWM in accordance with the OHWM Guide (USACE 2008b). The OHWM Guide is

intended for delineating ephemeral/intermittent channels. OHWM indicators commonly found in the Arid West include a clear natural scour line impressed on the bank, recent bank erosion, destruction of native terrestrial vegetation, and the presence of litter and debris. Resources needed to delineate OHWM include aerial photography and other imagery, topographic maps and other maps (e.g., geological, soil, vegetation), rainfall data, stream gage data, and existing delineations (if present). Field identification of the OHWM includes noting general impression of the vegetation species and distribution, geomorphic features present, surrounding upland land use, and hydrologic alterations and instream and floodplain structures. In the field, the process of delineating the OHWM includes the identification of a low-flow channel (if present), a transition to an active floodplain, and an active floodplain through the presence of geomorphic features (e.g., presence of an active floodplain, benches, break in bank slope, staining of rocks, litter, or drift) and vegetation indicators (e.g., presence of sparse/low vegetation, annual herbs, hydromesic ruderals, pioneer tree seedlings and saplings, xeroriparian species).

In addition, stream conditions were assessed based on the USACE-recommended protocol (SWQB 2010) to properly classify features as ephemeral, intermittent, or perennial waters. A combination of hydrological, geomorphic and biological indicators was used to determine the hydrologic nature of each drainage. In addition, each drainage was evaluated for the presence or absence of bed and bank, a natural line impressed in the bank, sediment deposits, changes in the character of soil, destruction of terrestrial vegetation, litter/debris (wrack), leaf litter disturbance, water stains, soil shelving, and exposed roots indicating active hydrology within the channel. Feature characteristics and measurements were recorded directly into the data dictionary in the Global Positioning System (GPS) unit. Characteristics of all mapped features were also documented in photographs.

Where wetlands were suspected, paired locations were sampled to evaluate whether or not the vegetation, hydrology, and soils data supported a wetland aquatic resource delineation when possible. At each paired location, one point was located such that it was within the estimated aquatic resource area, and the other point was situated outside the limits of the estimated aquatic resource area. An additional non-paired location was sampled to document a marginal area that was determined to be upland; it lacked hydrophytic vegetation, hydric soils, and/or wetland hydrology. Field data were recorded on Wetland Determination Data Forms - Arid West Region.

Section 401 of the CWA identifies jurisdictional limits as any "surface water or groundwater, including saline waters, within the boundaries of the state." For the purposes of this delineation, the limits of RWQCB jurisdiction generally follow those of the USACE jurisdiction under Section 404. Limits of CDFW-regulated areas include the bank-to-bank width measures for each feature and the extent of associated riparian habitat and riparian tree species based on the canopy of the riparian community or tree, to the limits of the dripline, within or directly adjacent to the streambed. Riparian habitat was defined as plant species that are likely dependent on the hydrology of the streambed.

The observed features were mapped using a postprocessing capable GPS unit with submeter accuracy (e.g., Juniper Geode™). The location, species, number, and diameter at breast height (DBH) of riparian trees within the DA were also recorded using a GPS unit.

3.4 Post-Processing

The data collected in the field utilized ArcGIS™ Collector on a device (smartphone or tablet) connected to a submeter external receiver (i.e., Juniper Geode™). The submeter receiver applies differential correction instantaneously in the field using the Satellite Based Augmentation System. The data were then viewed and analyzed for verification, edited, and compiled in Geographic Information System format at the time of download. ArcGIS™ software was used to develop the geodatabase and the shapefiles depicted on the figures included in this report.

4.0 RESULTS

4.1 Existing Site Conditions

Topography for this site is generally flat, and it has been disturbed since at least 1904. The elevation is at 8 to 13 feet above mean sea level throughout the entire the Project Area. Average annual precipitation for National City is 12.34 inches, which falls as rain. In the 2020-2021 rain year, the Mid City San Diego weather station recorded 7.25 inches of rain approximately 12 kilometers from the Project Area (National Oceanic and Atmospheric Administration [NOAA] 2022). The average precipitation per event that year was 0.345 inch. Rainfall data summary is provided in Table 2.

Table 2. Rainfall Data Summary			
Season	Station	Total Precipitation (inches)	Average Precipitation per Event (inches)
2018-2019 ¹	Mid City San Diego 0.5W, CA US	24.38	3.04
2019-2020 ¹	Mid City San Diego 0.5W, CA US	17.03	2.84
2020-2021 ¹	Mid City San Diego 0.5W, CA US	7.6	1.27

¹ Rainfall Data from October 1- May 31 (NOAA 2022)

4.1.1 Soils

The soil map units identified within the DA by NRCS are listed in Table 3 and on Figure 2, along with their major drainage characteristic and NRCS hydric soil status (NRCS 2022b, 2022c). Soil characteristics observed in the field were generally consistent with what has been identified for these soil units and their official series descriptions.



**Figure 2. Natural Resources
Conservation Service Soil Types**

Map Content

- Project Area
- Remediation Area
- Delineation Area

Series Designation - Series Description

- HuC - Huerhuero-Urban land complex,
2 to 9 percent slopes

Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Soils_and_Geology\National_City_Soils_ARC.mxd 0-travelin 6/2/2022



Table 3. Natural Resources Conservation Service Soil Types					
Map Unit Symbol	Map Unit Name	Taxonomic Class	Taxonomic Order	Drainage Class	Hydric Rating
HuC	Huerhuero-Urban land complex, 2 to 9 percent slopes.	Fine, montmorillonitic, thermic Typic Natrixeralfs	Alfisols	Moderately well drained	No

4.1.2 National Wetland Inventory

According to the National Wetlands Inventory (USFWS 2022), there are no features mapped within the DA. The nearest mapped feature is approximately 600 feet to the southeast (Figure 3).

4.1.3 Vegetation Communities

The habitat and vegetation community mapping follow the classifications described in *A Manual of California Vegetation* (Sawyer et al. 2009) and *A Manual of California Vegetation Online* (California Native Plant Society [CNPS] 2022). Vegetation within the DA is composed of disturbed mulefat thickets and ornamental vegetation. Two additional land cover types occur within the DA and include developed and disturbed.

4.1.3.1 Disturbed Mulefat Thickets (Disturbed *Baccharis salicifolia* Shrubland Alliance)

Mulefat thickets are characterized as having mulefat dominant or codominant in the shrub canopy, typically with other native plant species. Within the DA, mulefat thickets are disturbed with sparse cover of mulefat and broom baccharis (*Baccharis sarothroides*) intermixed with nonnative and ornamental species such as red brome (*Bromus madritensis* ssp. *rubens*) and golden wattle (*Acacia pycnantha*). This vegetation community was not associated with any drainages and is present within an upland area of disturbed soils within the Remediation Area. Mulefat is known to be a colonizer of disturbed sites and is not considered a sensitive vegetation community for this Project, nor is it considered to be an ESHA under the CCA.

4.1.3.2 Ornamental

The ornamental classification consists of vegetation that has been landscaped. The ornamental area of the DA is at the southern end of the Remediation Area and is comprised primarily of golden wattle intermixed with nonnative species such as red brome and sweet fennel (*Foeniculum vulgare*).



Figure 3. National Wetlands Inventory

Map Content

- Project Area
- Remediation Area

Wetland Type

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland

Location: N:\2021\2021-285 National City Renewable Diesel Facility\MAPS\Hydro\National_City_NWI.mxd 0-trotellini 5/5/2022



4.1.3.3 Other Land Cover Types

Disturbed

The Disturbed classification includes areas where the native vegetation community has been heavily influenced by human actions, such as grading, trash dumping, and dirt roads, but lacks development. Disturbed is not a vegetation classification, but rather a land cover type and is not typically restricted to a known elevation. Disturbed areas of the DA included a large portion of the Remediation Area and a majority of the Project Area situated between the railroad and parking lot. An active dump site and a homeless encampment were observed within the disturbed areas. In areas classified as Disturbed, vegetation was absent or consisted primarily of nonnative species, such as tamarisk (*Tamarix* sp.), foxtail barely (*Hordeum murinum*), Russian thistle (*Salsola tragus*), smilo grass (*Stipa miliacea*), yellow sweet clover (*Melilotus indicus*), and crown daisy (*Glebionis coronaria*).

Developed/Urban Lands

Developed lands are those that are heavily affected by human use, including landscaping, residential homes, commercial or industrial buildings and associated infrastructure, and transportation corridors. Within the Project Area this included the parking lot, materials storage yard, and railroad tracks. Within the larger DA, this included surrounding commercial buildings and roads. Landscaped areas consisted primarily of ornamental species Mexican fan palm (*Washingtonia robusta*) and sea lavender (*Limonium perezii*) as well as nonnative species including tree tobacco (*Nicotiana glauca*), rabbitsfoot grass (*Polypogon monspeliensis*), and crown daisy.

4.2 Aquatic Resources

No potential waters of the U.S./State have been mapped within the DA; these results are subject to agency verification. Aquatic resources that fall within the Project boundaries are summarized by feature in Table 4 and depicted on Figure 4. The OHWM data forms are included as Attachment B, and representative site photographs are included as Attachment C.

4.2.1 Wetlands

No wetlands were identified within the DA.

4.2.2 Other Waters of the U.S. (Non-Wetlands)

No other waters of the U.S. were identified within the DA.

3.2.1 Wetlands Defined in Accordance with the California Coastal Act

Under the CCA, the presence of a single criteria/parameter (i.e., wetland vegetation or hydric soils or wetland hydrology) is sufficient to make a presumptive finding for the presence of wetlands. As such, wetlands defined under the CCA are more extensive in the DA as compared to USACE wetlands. Under the

CCA, potential wetlands defined by the CCC total 0.144 acre and are depicted on Figure 4 and summarized in Table 4. The feature is a depressional feature and is described below.

Table 4. Potential CCC Wetlands		
Classification	Acreage¹	Linear Feet
Depressional Feature	0.144	-
Total:	0.144	-

Acreages in this table represent a calculated estimation and are subject to modification following the CCC verification process. Waters areas are measured in State Plane (NAD83) coordinates. All measurements are in the defined units for this coordinate system (feet) and all calculations and summations are calculated in square feet. Results are converted to acreages for ease of use. However, this conversion may lead to minor rounding errors in the reporting of acreage summaries.

3.2.1.1 Depressional Feature

One depressional feature currently exists within the southwest portion of the DA (Feature 3). According to aerial imagery (Google Earth 2021), the location of the current depression used to have partial overlap with Harrison Avenue (compacted road base) and the other half was covered by a concrete lot that was removed in approximately 2018. Review of aerial imagery for 2018 reveals that after the concrete lot was removed, OHV use occurred with some regularity and multiple tracks through the depression are evident as well as mud splatter marks in all directions indicating vehicles were repeatedly driving through the depression. During field work deep tire ruts were visible in the depression. The elevation of the depression was likely at or near that of Harrison Avenue in 2018, however OHV activities likely lowered the elevation of the depression. At the time of the survey this depression did not have standing water but there were dried algal mats present.

3.2.2 Stormwater Conveyance Systems

Stormwater conveyance systems are manufactured features constructed for the purpose of channeling stormwater and urban runoff to a desired location. The following stormwater control features were constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff. Within the DA, these include both ephemeral stormwater conveyance features, as well as simple concrete culverts that lack vegetation and a defined bed-and-bank. These areas are considered non-jurisdictional to the regulatory agencies.

3.2.2.1 Ditches

Two brow-ditches functioning as stormwater conveyance systems displayed ephemeral characteristics (Features 1 and 2). These features daylight within the Project Area but enter and exit culverts that underground. These features are dry or mostly dry, with straight, confined channels. There is minimal or no compositional difference between upland and riparian corridors along these channels and the soil particle size inside the channels are the same or roughly the same as the soil particle size outside of the

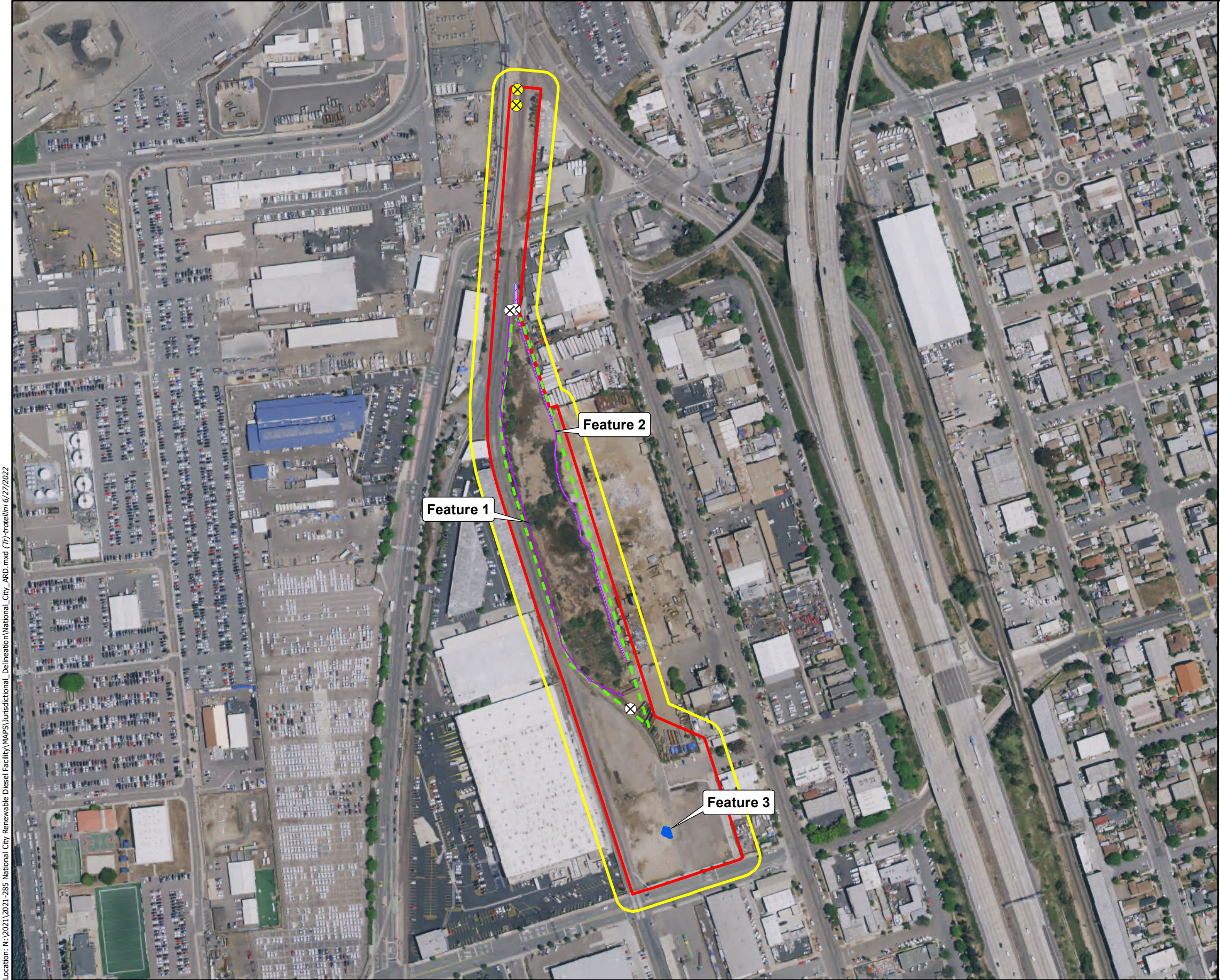


Figure 4. Aquatic Resources Delineation

Map Content

- Project Area
- Remediation Area
- Delineation Area
- X Culverts
- X Storm Drain Inlets

Potential Coastal California Commission Jurisdiction

- Depressional Feature

Non-Jurisdictional

- Ditch - Top-of-Bank
- Ditch - OHWM

Location: N:\2021\2021-285 National City Renewable Diesel Facility\WAPS\Jurisdictional_Delineation\National_City_ARP.mxd (TP-tracelli) 6/27/2022

channels. These features contain rooted upland plants within the streambed. These features are summarized in Table 5.

Table 5. Non-Jurisdictional Features					
Classification	OHWB Acreage¹	TOB Acreage¹	OHWB Width (feet)	TOB Width (feet)	Linear Feet
Stormwater Conveyance Systems:					
Feature 1	0.057	0.069	2	2.5	1243.566
Feature 2	0.087	0.143	4	10	1166.010
Total:	0.144	0.212	-	-	2409.576

Acreages in this table represent a calculated estimation and are subject to modification following the Corps' verification process. Waters areas are measured in State Plane (NAD83) coordinates. All measurements are in the defined units for this coordinate system (feet) and all calculations and summations are calculated in square feet. Results are converted to acreages for ease of use. However, this conversion may lead to minor rounding errors in the reporting of acreage summaries.

3.2.2.2 Culverts and Associated Features

There are three manufactured drainage culverts and two storm drain inlets that generally serve the purpose of conveying stormwater and urban runoff underneath local roads, the railroad, and surrounding developed areas. These consist mostly of concrete features with metal drainage pipes that range from approximately 1 to 2 feet in diameter. They are largely unvegetated and lack a natural bed and bank. These features are likely associated with municipal storm sewer systems.

5.0 JURISDICTIONAL ASSESSMENT

The features observed and/or mapped within the DA do not appear to be tributary to Traditional Navigable Waters (TNW) or connected to interstate waters based on the field assessment and an assessment of aerial photographs, but rather the various features located in the DA are considered isolated. If the drainages recorded within the DA do not connect downstream to TNW or to Interstate Waters, as determined by the USACE, then these aquatic resources may not be subject to regulation under the CWA. However, a depressional feature located within the DA is considered to be potentially jurisdictional under the CCA.

According to Regulatory Guidance Letter (08-02), an Applicant "may elect to use a preliminary [Jurisdictional Determination] JD to voluntarily waive or set aside questions regarding CWA/Rivers and Harbors Act of 1899 (RHA) jurisdiction over a particular site, usually in the interest of allowing the landowner or other 'affected party' to move ahead expeditiously to obtain a Corps permit authorization where the party determines that it is in his or her best interest to do so" (USACE 2008c). A significant nexus evaluation is not necessary to obtain a preliminary JD. An approved JD by the USACE would be necessary to determine if jurisdictional waters of the U.S. are absent.

For impacts to CCA areas, the Project would require consistency with the LCP and concurrence with the City, who presides over the LCP.

6.0 CONCLUSION

No resources waters of the U.S./State have been mapped within the DA. However, a single depressional feature that is likely jurisdictional under the CCA has been mapped. This acreage and extent represent a calculated estimation of the jurisdictional area within the Proposed Project and is subject to modification during the agency verification process. Fill within jurisdictional features to the CCA would require City concurrence pursuant to the LCP.

7.0 REFERENCES

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LIST OF ATTACHMENTS

Attachment A – Driving Directions to Delineation Area

Attachment B – OHWM and Wetland Determination Data Forms - Arid West

Attachment C – Representative Site Photographs

ATTACHMENT A

Driving Directions to Delineation Area

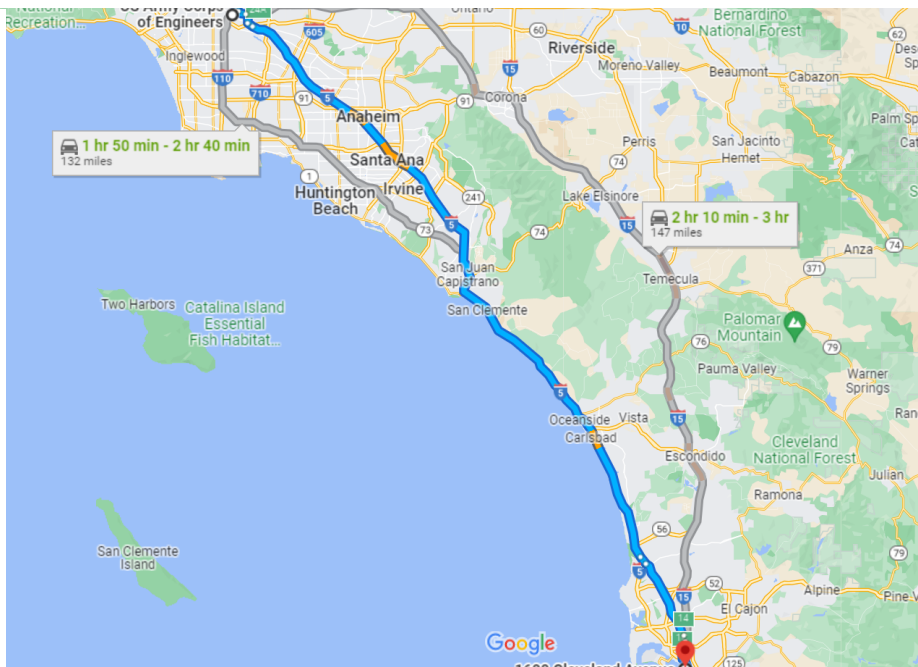
US Army Corps of Engineers
915 Wilshire Blvd, Los Angeles, CA 90017

Get on CA-110 N/Harbor Fwy from S Figueroa St

- ↑ 1. Head southeast on Wilshire Blvd toward S Figueroa St
2 min (0.5 mi)
- ↶ 2. Turn left at the 1st cross street onto S Figueroa St
417 ft
- ↶ 3. Turn left at the 3rd cross street onto W 5th St
0.2 mi
- ↷ 4. Keep right at the fork, follow signs for Harbor Fwy/CA-110 N and merge onto CA-110 N/Harbor Fwy
174 ft

Follow I-5 S and I-805 S to Cleveland Ave in National City.
Take exit 11A from I-5 S

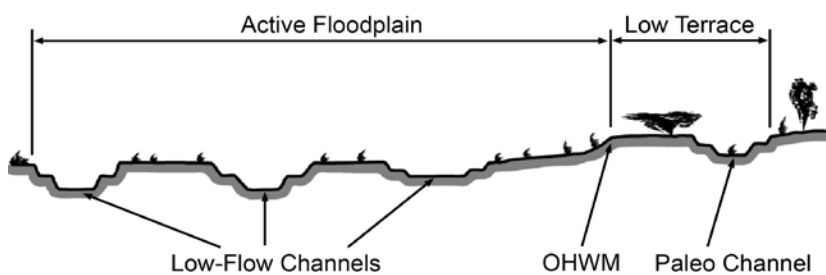
- ↗ 5. Merge onto CA-110 N/Harbor Fwy
1 hr 59 min (125 mi)
- ↘ 6. Take exit 24A toward I-5 S/I-10 E
0.5 mi
- ↗ 7. Use the left lane to merge onto US-101 S
0.5 mi
- ↶ 8. Keep left to stay on US-101 S
453 ft
- ↗ 9. Keep right at the fork to stay on US-101 S
1.2 mi



Map data ©2022 Google, INEGI 10 mi

OHWL and Wetland Determination Data Forms – Arid West Region

Arid West Ephemeral and Intermittent Streams OHW M Datasheet

Project: National City Project Number: 2021-285 Stream: 1 Investigator(s): C. Torres, C. Garcia, K. Zornado	Date: 3/17 Town: National City Photo begin file#: Time: State: CA Photo end file#:
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed?	Location Details: Located east of active BNSF railroad. <hr/> Projection: Datum: Coordinates:
Potential anthropogenic influences on the channel system: Reclamation site with toxic pollutants, active railroad, homeless encampments, dump site.	
Brief site description: East of active BNSF tracks within reclamation site,	
Checklist of resources (if available): <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input checked="" type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input checked="" type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input checked="" type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </div> <div style="width: 45%;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </div> </div>	
Hydrogeomorphic Floodplain Units 	
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHW M: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHW M and record the indicators. Record the OHW M position via: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <input type="checkbox"/> Mapping on aerial photograph <input type="checkbox"/> Digitized on computer </div> <div> <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Other: </div> </div> 	

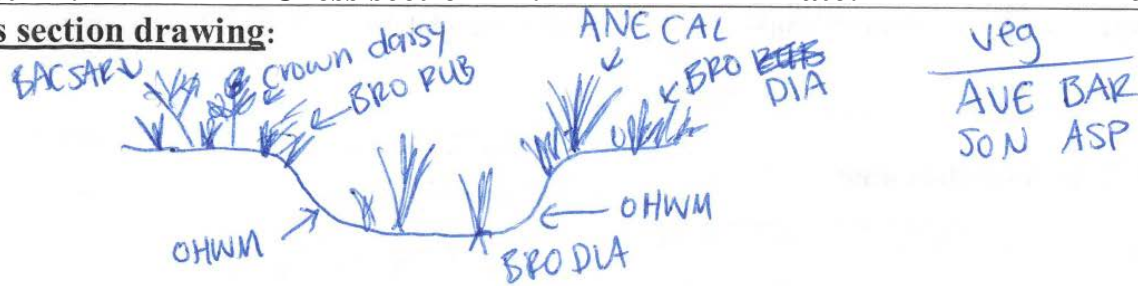
Project ID:

Cross section ID:

Date:

Time:

Cross section drawing:



OHWM

GPS point: 32.665325 N, -117.113147 W

Indicators:

- ☐ Change in average sediment texture
☒ Change in vegetation species
☒ Change in vegetation cover

- ☒ Break in bank slope
☐ Other: _____
☐ Other: _____

Comments:

Ditch fed from culvert approximately 1.5' upstream
OHWM width: 2'
B2B width: 2.5'

Floodplain unit:

☒ Low-Flow Channel

☐ Active Floodplain

☐ Low Terrace

GPS point: " _____ "

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 17 % Tree: 0 % Shrub: 0 % Herb: 17 %

Community successional stage:

- ☐ NA
☒ Early (herbaceous & seedlings)
☐ Mid (herbaceous, shrubs, saplings)
☐ Late (herbaceous, shrubs, mature trees)

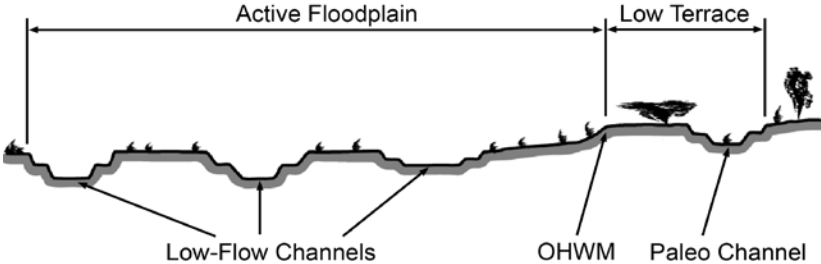
Indicators:

- ☐ Mudcracks
☐ Ripples
☐ Drift and/or debris
☒ Presence of bed and bank
☐ Benches

- ☐ Soil development
☐ Surface relief
☒ Other: vegetation matted down
☒ Other: change in veg color
☐ Other: _____

Comments:

Arid West Ephemeral and Intermittent Streams OHWL Datasheet

Project: National City Project Number: 2021-285 Stream: 2 Investigator(s): C. Torres, C. Garcia, K. Zornado		Date: 3/17/22 Town: National City Photo begin file#:		Time: State: CA Photo end file#:	
Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Do normal circumstances exist on the site? Y <input checked="" type="checkbox"/> / N <input type="checkbox"/> Is the site significantly disturbed?		Location Details: Located east of active BNSF railroad. <hr/> Projection: Datum: Coordinates:			
Potential anthropogenic influences on the channel system: Railroad (active) nearby - 15 ' away. Litter observed in channel					
Brief site description: Channel right next to active railroad.					
Checklist of resources (if available): <div style="display: flex; flex-wrap: wrap;"> <div style="width: 50%;"> <input checked="" type="checkbox"/> Aerial photography Dates: <input type="checkbox"/> Topographic maps <input type="checkbox"/> Geologic maps <input type="checkbox"/> Vegetation maps <input checked="" type="checkbox"/> Soils maps <input checked="" type="checkbox"/> Rainfall/precipitation maps <input type="checkbox"/> Existing delineation(s) for site <input checked="" type="checkbox"/> Global positioning system (GPS) <input type="checkbox"/> Other studies </div> <div style="width: 50%;"> <input type="checkbox"/> Stream gage data Gage number: Period of record: <input type="checkbox"/> History of recent effective discharges <input type="checkbox"/> Results of flood frequency analysis <input type="checkbox"/> Most recent shift-adjusted rating <input type="checkbox"/> Gage heights for 2-, 5-, 10-, and 25-year events and the most recent event exceeding a 5-year event </div> </div>					
Hydrogeomorphic Floodplain Units 					
Procedure for identifying and characterizing the floodplain units to assist in identifying the OHWL: <ol style="list-style-type: none"> 1. Walk the channel and floodplain within the study area to get an impression of the geomorphology and vegetation present at the site. 2. Select a representative cross section across the channel. Draw the cross section and label the floodplain units. 3. Determine a point on the cross section that is characteristic of one of the hydrogeomorphic floodplain units. <ol style="list-style-type: none"> a) Record the floodplain unit and GPS position. b) Describe the sediment texture (using the Wentworth class size) and the vegetation characteristics of the floodplain unit. c) Identify any indicators present at the location. 4. Repeat for other points in different hydrogeomorphic floodplain units across the cross section. 5. Identify the OHWL and record the indicators. Record the OHWL position via: <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div> <input type="checkbox"/> Mapping on aerial photograph <input type="checkbox"/> Digitized on computer </div> <div> <input checked="" type="checkbox"/> GPS <input type="checkbox"/> Other: </div> </div> 					

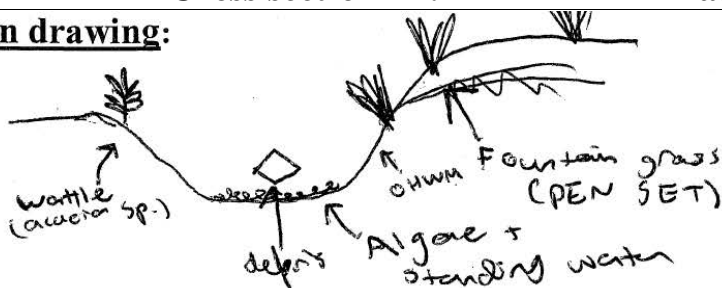
Project ID:

Cross section ID:

Date:

Time:

Cross section drawing:



OHWM

GPS point: 32.668621 N, -117.114198 W

Indicators:

- | | |
|---|--|
| <input type="checkbox"/> Change in average sediment texture | <input checked="" type="checkbox"/> Break in bank slope |
| <input type="checkbox"/> Change in vegetation species | <input checked="" type="checkbox"/> Other: <u>Standing water</u> |
| <input type="checkbox"/> Change in vegetation cover | <input checked="" type="checkbox"/> Other: <u>Water line</u> |

Comments:

Natural bottomed channel fed by brow ditches

OHWM: 4'

B2B: 10'

Floodplain unit:

- ☒ Low-Flow Channel ☐ Active Floodplain ☐ Low Terrace

GPS point: " "

Characteristics of the floodplain unit:

Average sediment texture: Medium silt

Total veg cover: 0 % Tree: 0 % Shrub: 0 % Herb: 0 %

Community successional stage:

- | | |
|---|--|
| <input checked="" type="checkbox"/> NA | <input type="checkbox"/> Mid (herbaceous, shrubs, saplings) |
| <input type="checkbox"/> Early (herbaceous & seedlings) | <input type="checkbox"/> Late (herbaceous, shrubs, mature trees) |

Indicators:

- | | |
|--|---|
| <input type="checkbox"/> Mudcracks | <input type="checkbox"/> Soil development |
| <input type="checkbox"/> Ripples | <input type="checkbox"/> Surface relief |
| <input checked="" type="checkbox"/> Drift and/or debris | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Presence of bed and bank | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Benches (small) | <input type="checkbox"/> Other: _____ |

Comments:

ATTACHMENT C

Representative Site Photographs

Attachment C. Representative Site Photographs



Photo 1. Depressional feature (Feature 3) with dried algal mats present. March 17, 2022.



Photo 2. Feature 1 - Manmade brow-ditch, facing north. March 17, 2022.

Attachment C. Representative Site Photographs



Photo 3. Drainage pipe that undergrounds and leads into daylight portion of Feature 1. March 17, 2022.



Photo 4. Feature 1 - Manmade brow-ditch, facing south. March 17, 2022.

Attachment C. Representative Site Photographs



Photo 5. Feature 1 culvert within Remediation Area. March 17, 2022.



Photo 6. Feature 2 – Culvert adjacent to railroad tracks. March 17, 2022.

Attachment C. Representative Site Photographs



Photo 7. Feature 2 – Manmade brow-ditch upstream of underground crossing, south of Civic Center Dr. and Tidelands Ave. March 17, 2022.



Photo 8. Feature 2 – Manmade brow-ditch south of Civic Center Dr. and Tidelands Ave, underground crossing pictured. March 17, 2022.

APPENDIX D

Fuel Consumption

**Proposed Project
Total Construction-Related and Operational
Gasoline Usage**

Construction

Table 1. Construction in First Calendar Year			
Action	Carbon Dioxide Equivalents (CO ₂ e) in Metric Tons ¹	Conversion of Metric Tons to Kilograms ²	Construction Equipment Emission Factor ²
Project Construction	282	282,000	10.15
Total Gallons Consumed During First Calendar Year of Construction:			27,783

Sources:
¹ California Emissions Estimator Model (CalEEMod), version 2022.1
² Climate Registry. 2016. <i>General Reporting Protocol for the Voluntary Reporting Program version 2.1</i> . January 2016. http://www.theclimateregistry.org/wp-content/uploads/2014/11/General-Reporting-Protocol-Version-2.1.pdf

Proposed Project
Total Construction-Related and Operational
Gasoline Usage

Operations

Table 2. Total Onroad Vehicle Gallons Consumed in San Diego County in 2024								
Area	Sub-Area	Calendar Year	Season	Veh_tech	EMFAC 2021 Category	Total Onroad Vehicle Gallons Consumed in San Diego County in 2024	Total Onroad Vehicle Miles Traveled in San Diego County in 2024	Total Vehicle Miles per Gallon in San Diego County in 2024
Sub-Areas	San Diego County	2024	Annual	T7 CAIRP Class 8	T7 CAIRP Class 8	21,439,422	131,742,593	6.14
Sources: California Air Resource Board. 2021. EMFAC2021 Mobile Emissions Model.								

Table 3. Total Gallons During Project Operations		
Annual VMT	Total Miles Per Gallon	Project Onroad Vehicle Annual Fuel Consumption
733,120	6.14	119,306
Sources: CalEEMod 2022.1.		

APPENDIX E

Paleontological Assessment

SAN DIEGO NATURAL HISTORY MUSEUM

3 February 2022

Michael M. DeGiovine
ECORP Consulting, Inc.
3838 Camino del Rio North, Suite 370
San Diego, CA 92108

RE: Paleontological Records Search – Proposed BNSF Rail Terminal in the City of National City

Dear Mr. DeGiovine:

This letter presents the results of a paleontological records search conducted for the Proposed BNSF Rail Terminal project (Project), located in the western portion of the City of National City, San Diego County, California. The Project site lies west of Interstate 5, and is bordered to the south by West 19th Street, to the east by Cleveland Avenue, to the northwest by Tidelands Avenue, and to the west by existing commercial development.

Methods

A review of published geological maps covering the Project site and surrounding area was conducted to determine the specific geologic units underlying the Project site. Each geologic unit was subsequently assigned a paleontological resource sensitivity (Deméré and Walsh, 1993). In addition, a search of the paleontological collection records housed at the San Diego Natural History Museum (SDNHM) was conducted in order to determine if any documented fossil collection localities occur at the Project site or within the immediate surrounding area.

Results

Published geological reports (e.g., Kennedy and Tan, 2008) covering the Project area indicate that the proposed Project has the potential to impact artificial fill and Quaternary young alluvial flood plain deposits. These geologic units and their paleontological sensitivity are summarized below.

The SDNHM does not have any recorded fossil localities that lie within one mile of the Project site.

artificial fill – Artificial fill is mapped as underlying the majority of the Project site. The fill deposits present along the National City Bayfront were emplaced to support industrial and military development along the bay. Because artificial fill has been previously disturbed and may have been imported to a project site, any contained fossil remains have lost their original stratigraphic contextual data and are thus of little scientific value. For these reasons, artificial fill is assigned no paleontological sensitivity.

young alluvial flood plain deposits – The eastern margin of the Project site is underlain at the surface by late Pleistocene- to Holocene-age young alluvial flood plain deposits. These deposits are generally considered to be less than 11,700 years old, and range in composition from unconsolidated to moderately consolidated silt, sand, pebbly and cobbly sand, and boulders. These deposits are assigned a low paleontological sensitivity based on their relatively young geologic age and lack of recorded fossil collection localities.

Summary and Recommendations

Given the low or zero paleontological sensitivity of the geologic units underlying the Project site and the lack of nearby recorded fossil collection localities, construction of the Project is unlikely to result in impacts to paleontological resources. Therefore, implementation of a paleontological resource mitigation program is not recommended.

If you have any questions concerning these findings please feel free to contact me at 619-255-0264 or kmccomas@sdnhm.org.

Sincerely,



Katie McComas, M.S.
Paleontological Report Writer & GIS Specialist
San Diego Natural History Museum

Enc: Figure 1: Project map

Literature Cited

- Deméré, T.A., and S.L. Walsh. 1993. Paleontological Resources, County of San Diego. Unpublished technical report prepared for the San Diego County Department of Public Works: 1–68.
- Kennedy, M.P., and Tan, S.S. 2008. Geologic Map of the San Diego 30' x 60' Quadrangle, California. California Geological Survey, Regional Geologic Map Series 1:100,000 scale, map no. 3.
- San Diego Natural History Museum (SDNHM), unpublished paleontological collections data.



Figure 1: Records Search Map, BNSF Rail Terminal, City of National City, San Diego County, California

APPENDIX F

Geotechnical Investigation

APPENDIX G

Noise Model

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/21/2024

Case Description: Site Preparation

Description
Site Preparation

Land Use
Residential

Description	Impact Device	Usage(%)	Equipment	Actual Lmax (dBA)	Receptor Distance (feet)
			Spec Lmax (dBA)		
Dozer	No	40		81.7	380
Dozer	No	40		81.7	380
Dozer	No	40		81.7	380
Tractor	No	40	84		380
Tractor	No	40	84		380
Tractor	No	40	84		380
Tractor	No	40	84		380

Calculated (dBA)

Equipment	*Lmax	Leq
Dozer	64.1	60.1
Dozer	64.1	60.1
Dozer	64.1	60.1
Tractor	66.4	62.4
Tractor	66.4	62.4
Tractor	66.4	62.4
Tractor	66.4	62.4
Total	66.4	70

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/21/2024

Case Description: Grading

Description
Grading

Land Use
Residential

Description	Impact Device	Usage(%)	Equipment		Receptor Distance (feet)
			Spec Lmax (dBA)	Actual Lmax (dBA)	
Grader	No	40	85		380
Excavator	No	40		80.7	380
Dozer	No	40		81.7	380
Tractor	No	40	84		380
Tractor	No	40	84		380
Tractor	No	40	84		380
Dozer	No	40		81.7	380

Calculated (dBA)

Equipment	*Lmax	Leq
Grader	67.4	63.4
Excavator	63.1	59.1
Dozer	64.1	60.1
Tractor	66.4	62.4
Tractor	66.4	62.4
Tractor	66.4	62.4
Dozer	64.1	60.1
Total	67.4	70.1

*Calculated Lmax is the Loudest value.

Roadway Construction Noise Model (RCNM),Version 1.1

Report date: 2/21/2024
Case Description: Paving and Painting

Description Land Use
Paving and Painting Residential

Description	Impact Device	Usage(%)	Equipment	Actual Lmax (dBA)	Receptor Distance (feet)
			Spec Lmax (dBA)		
Paver	No	50		77.2	380
Paver	No	50		77.2	380
Pavement Scarafier	No	20		89.5	380
Pavement Scarafier	No	20		89.5	380
Roller	No	20		80	380
Roller	No	20		80	380
Compressor (air)	No	40		77.7	380

Calculated (dBA)

Equipment	*Lmax	Leq
Paver	59.6	56.6
Paver	59.6	56.6
Pavement Scarafier	71.9	64.9
Pavement Scarafier	71.9	64.9
Roller	62.4	55.4
Roller	62.4	55.4
Compressor (air)	60.1	56.1
Total	71.9	69.1

*Calculated Lmax is the Loudest value.

APPENDIX H

Traffic Impact Study

Transload Clean Fuels Facility

18th Street and Cleveland Ave

TRAFFIC IMPACT ANALYSIS
NATIONAL CITY, CALIFORNIA

Prepared By:



January 2024

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EXECUTIVE SUMMARY

The following summarizes Project characteristics:

- The Proposed Project is a rail-to-truck transload facility that will involve a transferred volume of approximately 13,800 barrels of fuel per day (bpd)/402 gallons per minute (gpm). Fuels expected at this facility would include biodiesel, renewable diesel, and either ethanol or sustainable aviation fuel. The Project is located south of Cleveland Avenue and 18th Street.
- Project access will follow a circulation route involving trucks entering the Project site on 18th Street from Cleveland Avenue and exiting the Project site on 19th Street.
- The purpose of this report is to provide an abbreviated analysis that describes the Project and provides Project trip generation and trip distribution documenting that the trips generated are under the thresholds that require a full study.
- The Project will generate 169 daily trips, when using a 2.5 factor for trucks, equating to 385 passenger car equivalent daily trips. As 70 percent of the truck activity will occur between 6 PM and 6 AM, this results in 13 weekday AM peak hour trips (7 inbound trips and 6 outbound trips) and 23 weekday PM peak hour trips (11 inbound trips and 12 outbound trips).
- The AM and PM peak hour trips for each of the eight study intersections do not reach the 50-trip threshold during any hour of operation including the AM and PM peak period. Based on the Guidelines for Traffic Impact Studies in the San Diego Region (ITE, 2019), the traffic impact to intersection operation can be deemed minimal.
- The Guidelines for Traffic Impact Studies in the San Diego Region (ITE, 2019) state: A roadway analysis should be prepared for projects that generate greater than 1,000 total average daily trips or 100 peak hour trips. This Project is estimated to generate less than 500 ADT and 50 peak hour passenger car equivalent trips. In following the guidelines, a full Traffic Impact Study beyond this submittal may not be required.
- A Vehicle Miles Traveled (VMT) review was conducted for the Project. The Project is presumed to have a less than significant impact on VMT as it meets the small Project exemption.
- It is requested that the City confirm the findings from this initial report or provide guidance on any additional steps to be taken.

1.0 INTRODUCTION

This Traffic Impact Assessment has been prepared to identify the potential traffic impacts associated with developing a rail-to-truck transload facility at 18th Street and Cleveland Avenue in National City, California. The guidelines for Traffic Impact Studies in the San Diego Region (ITE, 2019) were followed to complete this study.

This report describes the existing roadway network near the Project site. It includes a review of the existing and proposed traffic activities, describes truck access, and describes pedestrian, bicycle and transit facilities in the Project vicinity.

Project Description

The Proposed Project is a rail-to-truck transload facility that will involve a transferred volume of approximately 13,800 barrels of fuel per day (bpd)/402 gallons per minute (gpm). Fuels expected at this facility would include biodiesel, renewable diesel, and either ethanol or sustainable aviation fuel. The Project is located at the western rail junction and 18th Street. The rail lane is just west of the project. **Figure 1.1** shows the location of the Project site. **Figure 1.2** shows the preliminary site plan for the Proposed Project.

Project Access

Primary in-bound project access will be provided at Cleveland and 18th Street with 18th Street used to access the site. The unloading containment facility will include four truck loading spots. Outbound access will be provided from the truck transfer area at 19th Street.

Figure 1.1 Study Area



Figure 1.2 Site Plan

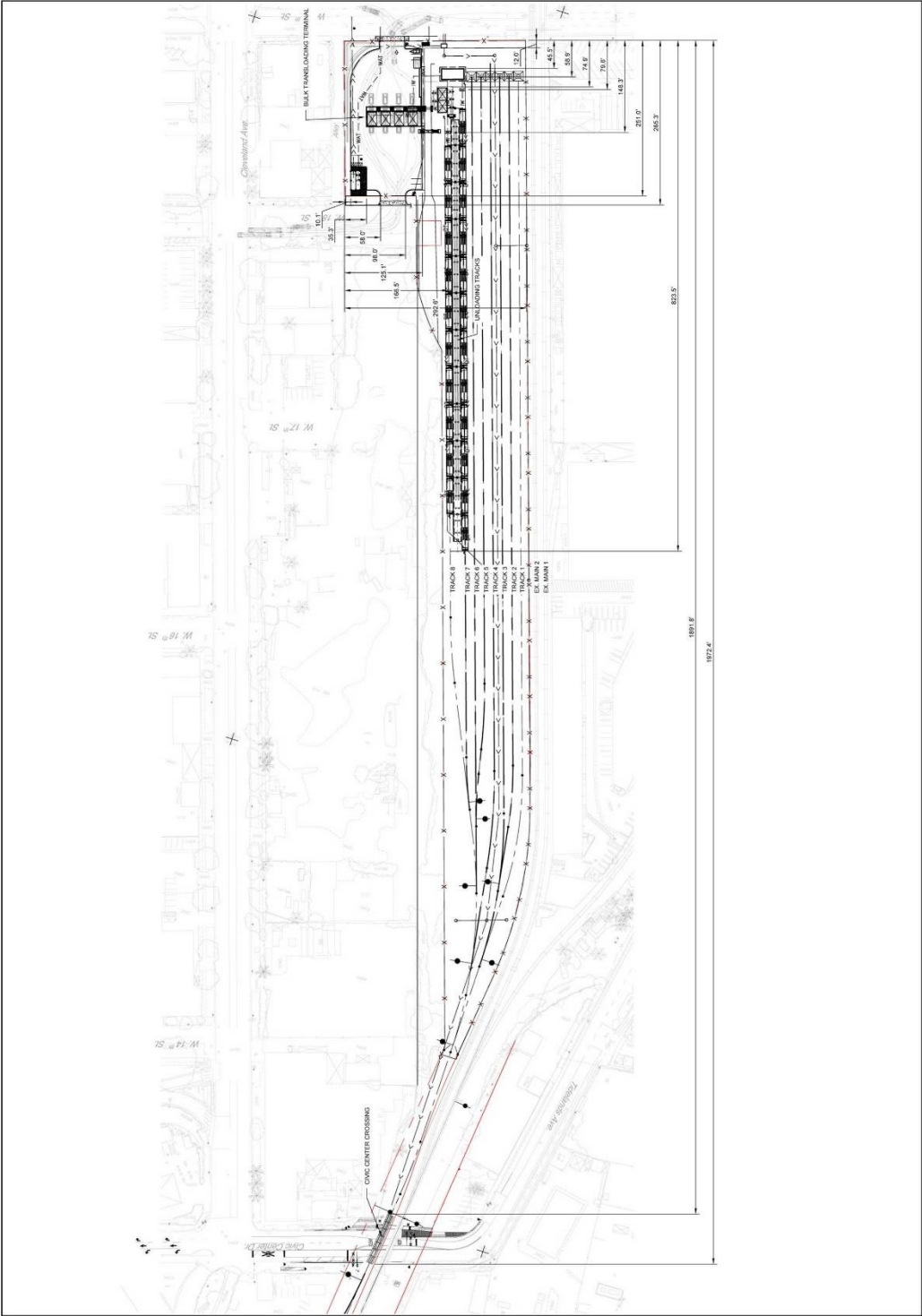


Figure 3. Site Plan
2021-285 National City Renewable Diesel Facility

2.0 ANALYSIS METHODOLOGIES

The following section describes the methodology used to determine study intersections, perform capacity analysis, perform VMT analysis and determine significant impacts.

Study Area

The study area was determined based on the Project's trip assignment and conversations with City of National City staff. The study area for this Project includes those locations to document that there are no traffic impacts from Project trips. No study area intersections or segments are considered to be affected due to the Project being under trip generation thresholds. Eight intersections are identified to describe Project traffic and include:

1. Civic Center Drive and Cleveland Avenue
2. Civic Center Drive and Harbor Drive
3. Civic Center Drive and Wilson Avenue/I-5 Ramps
4. I-5 Southbound Exit Ramp and Cleveland Avenue
5. Cleveland Avenue and 18th Street
6. Project exit at 19th Street
7. 19th Street and Tidelands Avenue
8. 19th Street and Cleveland Avenue

VMT Analysis

As of July 1, 2020, public agencies are required to adhere to Senate Bill 743 (SB 743) which replaces the analysis of level of service (LOS) with VMT for projects qualifying to meet documentation requirements under the California Environmental Quality Act (CEQA). SB 743 was approved by the California legislature in September 2013. SB 743 requires changes to CEQA, specifically directing the Governor's Office of Planning and Research (OPR) to develop alternative metrics to the use of vehicular LOS for evaluating transportation projects. OPR has prepared a technical advisory ("OPR Technical Advisory") for evaluating transportation impacts in CEQA and has recommended that Vehicle Miles Traveled (VMT) replace LOS as the primary measure of transportation impacts.

VMT refers to the distance a vehicle travels from each origin to destinations. A VMT analysis for CEQA purposes will not be required as the Project has 1,000 average daily trips (ADT) or less and is consistent with the adopted General Plan. If a project is inconsistent with the adopted General Plan, a VMT analysis will not be required if the Project has 500 ADT or less.

3.0 EXISTING CONDITIONS

Roadways

In the vicinity of the Project, the following roadways were analyzed as part of this study, which are described below. The roadway classification was obtained from the City of National City General Plan *Circulation Element*, 2011.

18th Street (Cleveland west into site)

18th Street is a two-lane local street that provides direct access to the Project site. Curb, gutter and sidewalk improvements are in place on the south side. Parking is permitted. It connects under I-5 and under the railroad tracks, but has height restrictions. 18th Street is one-way westbound north of Cleveland Avenue. South of Cleveland Avenue, 18th Street is two-way and extends one additional block. Bike lanes are not provided and there is no posted speed limit.

19th Street (from Cleveland Avenue to Tidelands Avenue)

19th Street is a four-lane collector street. Parking is not permitted. Curb, gutter and sidewalk improvements are in place and the posted speed limit is 35 mph. North of Cleveland Avenue, 19th Street is one-way eastbound. There are height restrictions on this route under I-5 and the railroad track bridge. Bike lanes are not provided.

Cleveland Avenue (from Civic Center Drive to Bay Marina Drive)

Cleveland Avenue is a two-lane collector street with a two-way center left turn lane. Parking is permitted on both sides of the street. Curb, gutter and sidewalk improvements are in place and the posted speed limit is 35 mph. Bike lanes are not provided.

Tidelands Avenue (from 19th Street to Civic Center Drive)

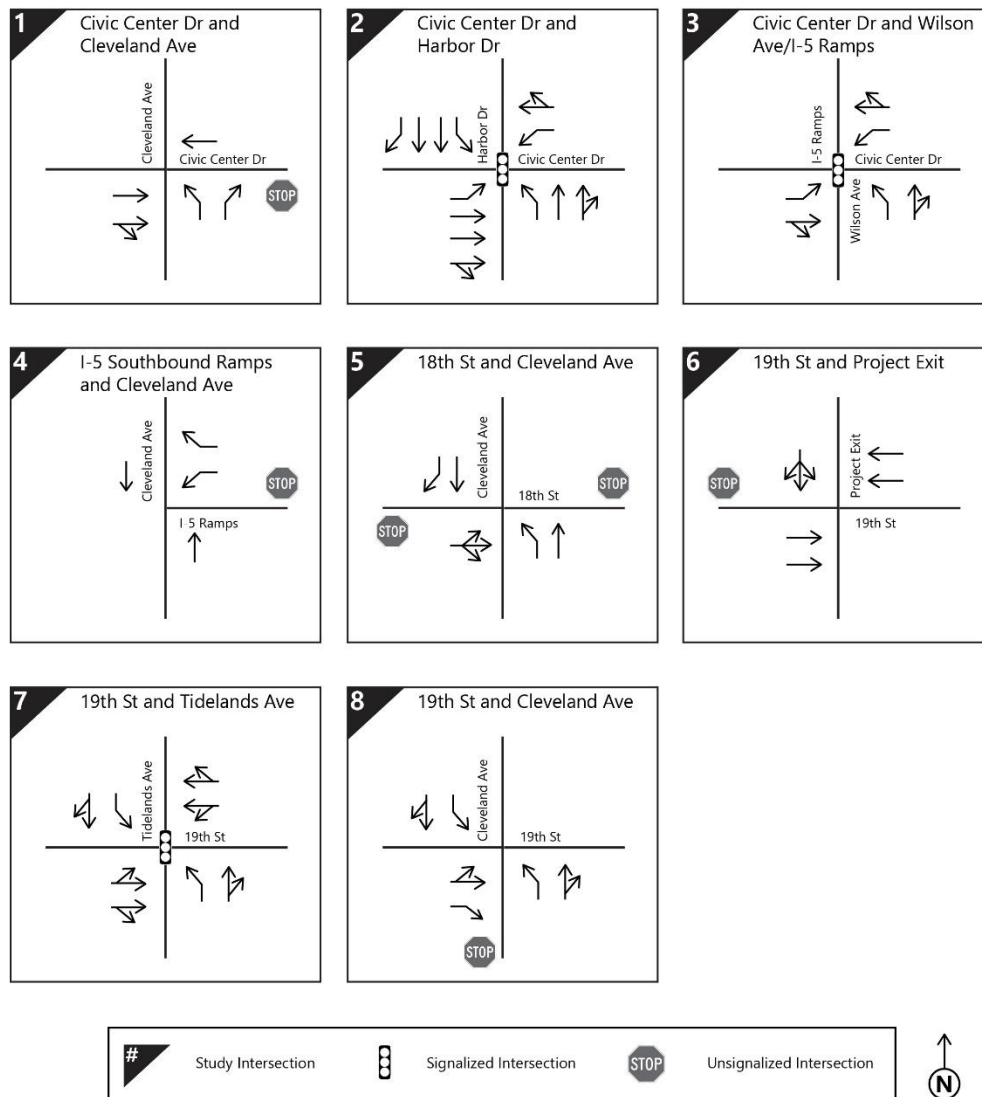
Tidelands Avenue has two lanes and is a collector street. The roadway provides access to a number of Port of San Diego uses. The Bayshore Bikeway, a regional bike facility that circles the San Diego Bay extends as a Class IV facility for much of its length before transitioning to a buffered bike lane located on both sides of the street. On-street parking is provided on both sides of the street along the buffered bike lane portion of this road segment. The posted speed limit is 35 mph.

Civic Center Drive (from Tidelands Avenue to I-5)

Civic Center Drive is a four-lane collector street. Ramp access to I-5 northbound and southbound is provided. Parking is permitted on both sides of the street east of the railroad tracks. Curb, gutter, and partial sidewalk improvements are in place and the posted speed limit is 30 mph. Bike lanes are not provided.

Figure 3.1 displays the existing intersection geometrics for study area intersections.

Figure 3.1 Intersection Geometrics



Sidewalks

Walkability within the Project area is provided by sidewalks located along 18th Street, Cleveland Avenue and Civic Center Drive east of Cleveland Avenue. Sidewalks are also provided on Tidewater Avenue. The Project will not impact the use of sidewalks by pedestrians.

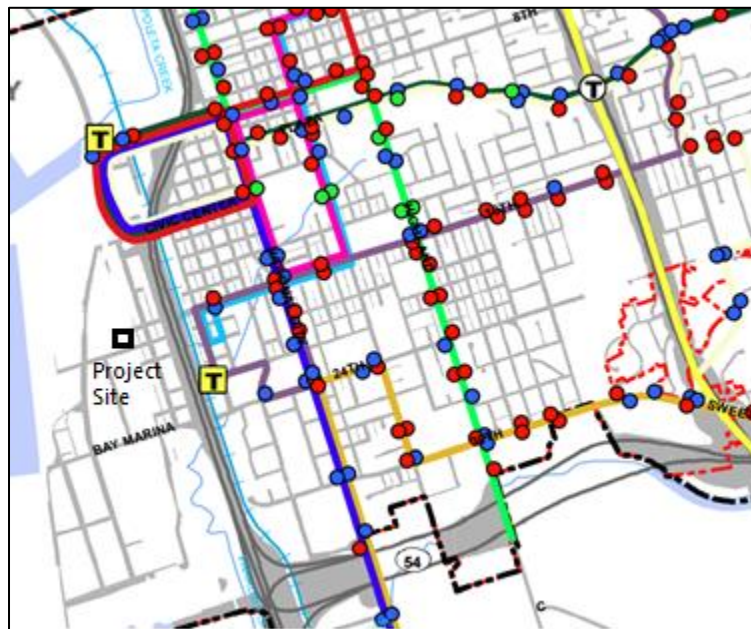
Bicycle Facilities

The Bayshore Bikeway is a 26-mile regional bicycle route that encircles San Diego Bay and passes through the City's planning area along Harbor Drive and Tidelands Avenue. It provides a link to the nearby cities of San Diego, Coronado, Imperial Beach, and Chula Vista. In the Project vicinity, the Bikeway is a separated bicycle facility that is located to the outside of the southbound lanes. For the Project, outbound truck traffic will use the northbound lanes on Tidelands Avenue. As a result, there will be no conflicting traffic movements between Project generated truck traffic and bicycles on the Bayshore Bikeway.

Transit

National City is served by a regional transit system operated by the San Diego Metropolitan Transit System (MTS). There are nine bus routes running in the City of National City with over 200 bus stops. Additionally, two MTS Trolley stations are located within the City, which are located on the Blue Line Trolley running from Old Town and Downtown San Diego to the US-Mexico border. The 8th Street Trolley Station is located near the intersection of 8th Street and Harbor Drive and the 24th Street Trolley Station is located near the intersection of 22nd Street and Wilson Avenue. Transit facilities and routes are not located in close proximity to the Project site. The trolley line does have an at-grade gate crossing of Civic Center Drive under I-5 between Wilson Avenue and McKinley Avenue. Transit routes and stops are shown in **Figure 3-2**.

Figure 3-2 Transit Routes and Stops



4.0 PROJECT TRAFFIC

The following section describes the Project trip generation, distribution, and assignment.

Trip Generation

The Project is expected to generate 385 passenger car equivalent daily trips, including 13 weekday AM peak hour trips (7 inbound trips and 6 outbound trips) and 23 weekday PM peak hour trips (11 inbound trips and 12 outbound trips).

Trip generation has been estimated from both information provided by the Applicant related to truck operation and from the ITE Trip Generation 11th Edition for non-truck travel. The truck generation information is deemed more accurate than using ITE Trip Generation rates that are less specific to this use. The Applicant has stated that the site will accommodate approximately 13,800 barrels or 579,600 gallons per day. The Applicant has estimated that each truck has the capacity for 8,500 gallons. This equates to 72 inbound and 72 outbound truck trips per day. There are a maximum of five employees that would be on site at one time, therefore 10 employees were used to reflect a shift change. The trip generation for these employees was estimated using an industrial employment trip rate. The facility will be operated in three shifts for 24 hours per day, but 70% of the trips will occur between 6 PM and 6 AM. The number of truck trips have been converted to passenger car equivalent trips using 2.5 vehicles/truck. The trip generation is shown below in **Table 4-1**.

Table 4-1 Trip Generation

ITE Code	Variable	Intensity	Unit	Daily Rate (1)	Daily Trips		AM Peak Hour			PM Peak Hour		
							Total	In	Out	Total	In	Out
140	Employees	10	Employee	2.51	25	Rate	0.32	73%	27%	0.31	37%	63%
						Trips	3	2	1	3	1	2
N/A	Truck Trips	13.8	1000 barrel	10.4	144	Rate	0.03	50%	50%	0.05	50%	50%
						Trips	4	2	2	8	4	4
Total					169	Trips	7	4	3	11	5	6
Passenger Car Equivalent					385		13	7	6	23	11	12

Source (Trip Rate): ITE Trip Generation Manual 11th Edition, Client

As noted previously, the Project will generate 385 passenger car equivalent trips per day and less than 50 passenger car equivalent trips during the AM and PM peak hours.

Trip Distribution

The trip distribution is based upon review of the City's truck route map and discussion with the Applicant regarding shipping destinations. Project outbound trips will be distributed to retailers within a 35-mile radius of the Project site. The trip distribution based on a review of potential truck trip origins and destinations provides the following:

North on I-5: 87%
 South on I-5: 10%
 East on 18th Street: 3%

Trip Assignment

Based on the expected Project trip distributions, daily, AM, and PM peak-hour Project trips were assigned to the roadway network and through the study intersections. The daily Project traffic is presented in **Figure 4.1**. The AM and PM peak hour trips for each of the eight study intersections are also shown in **Figure 4.2**. As noted previously, no intersections reach the 50-trip threshold during any hour of operation, including the AM and PM peak period.

Figure 4.1 - Project Traffic Volumes (Daily)

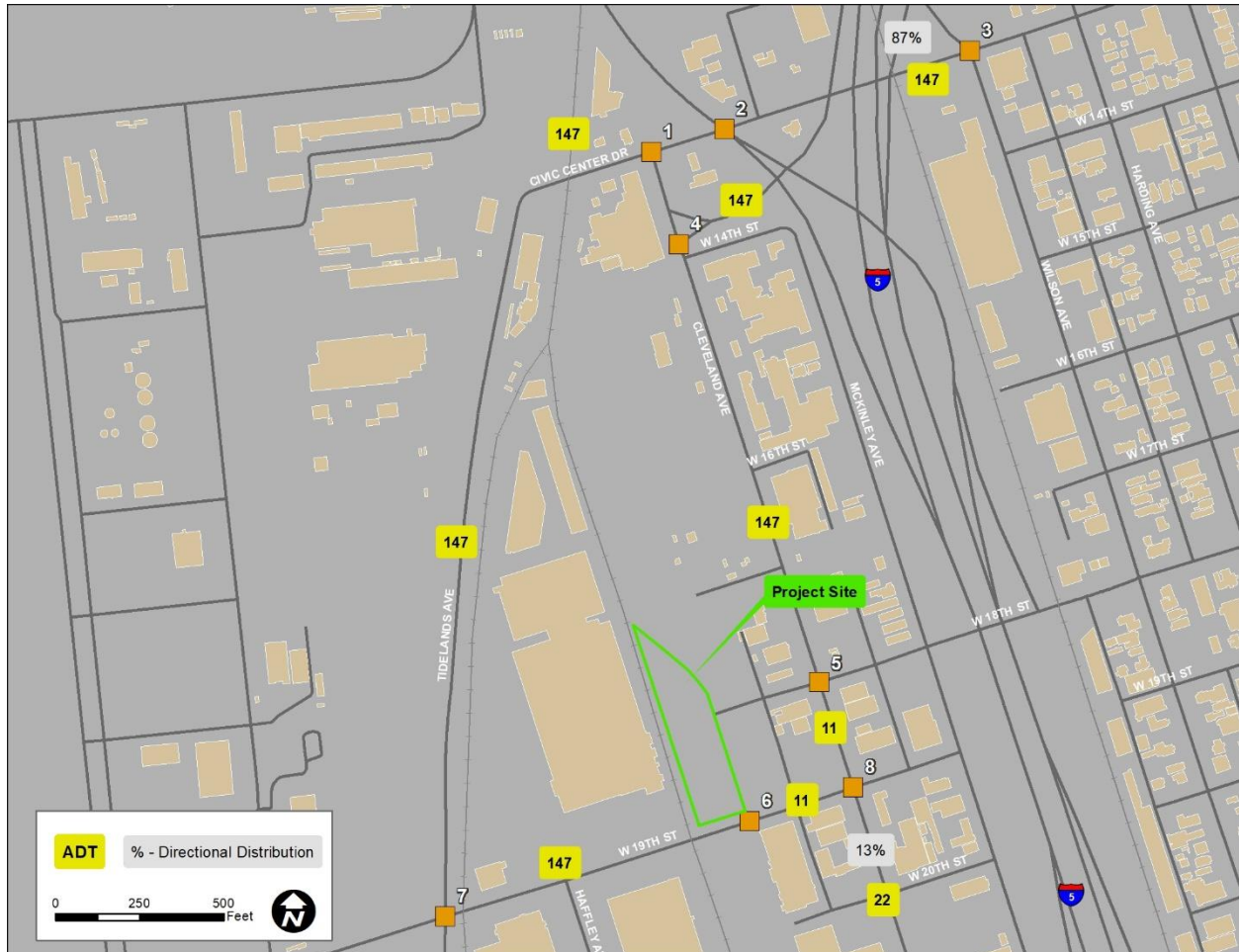
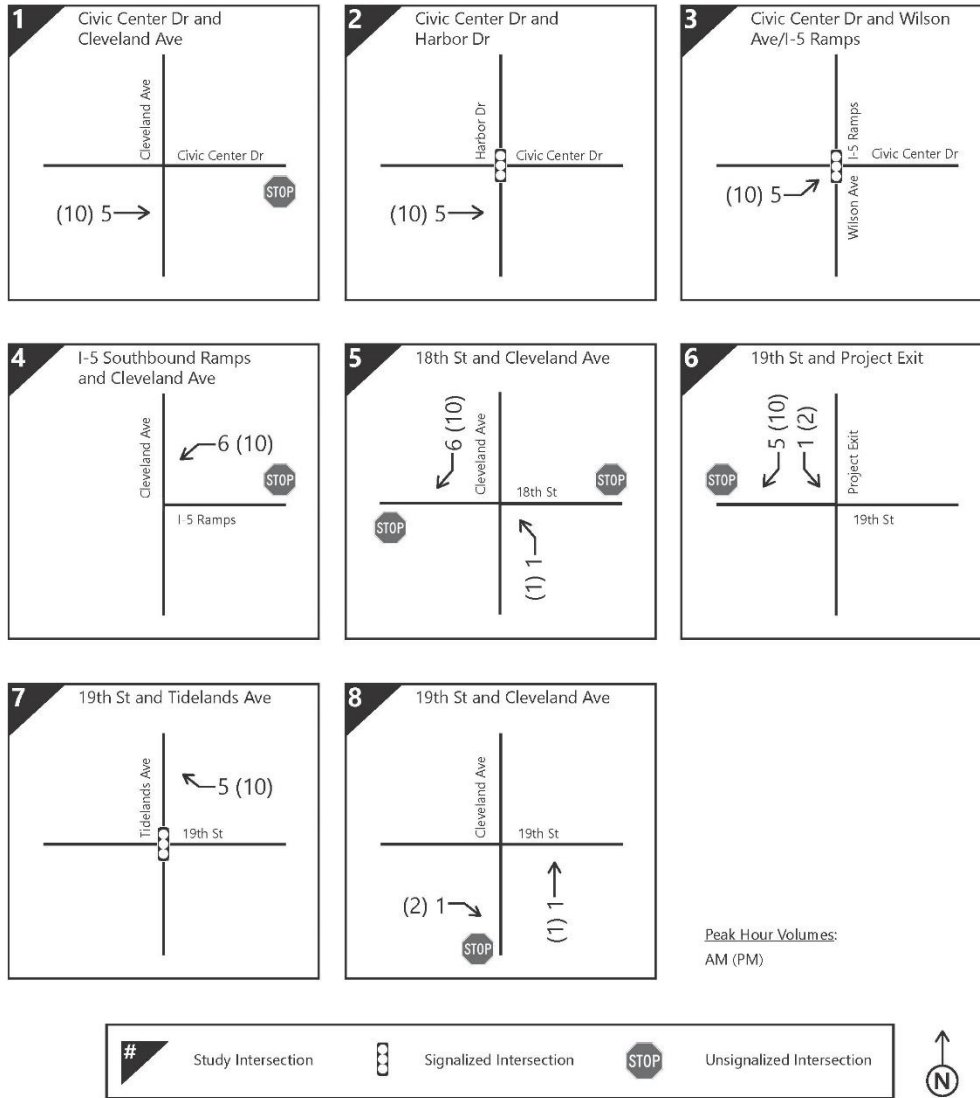


Figure 4-2 Project Traffic Volumes (Peak Hour)



5.0 CIRCULATION

The following section discusses the Proposed Project's access and circulation characteristics.

Project Access and Circulation

Truck access will follow a circulation route involving trucks entering the Project site on 18th Street from Cleveland Avenue and exiting the Project site at 19th Street.

Parking

Parking for employees and other activities will be provided on site.

6.0 VMT ANALYSIS

The California Governor's OPR Technical Advisory provides guidance for setting screening thresholds and thresholds of significance that can be used to identify when a proposed land use project is anticipated to result in a less than significant impact without conducting a more detailed level analysis. The OPR Technical Advisory supporting SB 743 recommends referring to the leading regional agency and/or generally accepted guidelines for location-specific information, VMT thresholds, and other land use types besides residential, office, and retail projects which tend to have the greatest influence on VMT.

This project will refer to the Guidelines for Traffic Impact Studies in the San Diego Region (ITE/SANTEC, 2000). The minimum project size methodology has been successfully used for over 23 years in the San Diego region and has received wide acceptance from transportation profession, decision makers, and the public. This project utilizes the minimum project size method based on previous traffic studies to show that a VMT analysis for CEQA purposes is not required as the Project will only generate **385** passenger car equivalent trips per day which does not exceed the lower **500** average daily trips (ADT) for projects inconsistent with the general plan and subsequently the **1000** ADT threshold for projects consistent with the general plan. This project is consistent with the adopted National City General Plan. The Project is screened out and further analysis is not required. The OPR alternative minimum project size methodology is not used as the project land use is substantially different from OPR's reference land use types of residential, office, and retail projects.

The guidelines are as follows:

MINIMUM PROJECT SIZE BASED ON PREVIOUS TIS GUIDELINES

It is recommended that projects be subjected to different levels of VMT analysis, depending on the size of the project and whether the project is consistent with the local jurisdiction's General Plan or Community Plan. Projects that are consistent with the General Plan or Community Plan are also considered to be consistent with the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS).

The determination of minimum project size for VMT analysis described below differs from the statewide guidance provided by OPR. It is based on regional standards for transportation analyses that were documented in the Guidelines for Traffic Impact Studies in the San Diego Region (ITE/SANTEC, 2000) and have been in use for over 18 years. The following level of VMT analysis is recommended based on project size (expressed in terms of Average Daily Trips generated by the project, also known as ADT) and zoning:

For Projects Inconsistent with General Plan or Community Plan:

ADT Level of Analysis **0 – 500** - VMT Analysis Not Needed/VMT Impacts Presumed Insignificant ¹

For projects consistent with General Plan or Community Plan:

ADT Level of Analysis **0 – 1,000** - VMT Analysis Not Needed/VMT Impacts Presumed Insignificant ¹

¹ *Guidelines For Transportation Impact Studies in the San Diego Region (P 4-3)*