

Cottonwood Sewer Lift Station Replacement Project

Draft Initial Study/
Mitigated Negative Declaration

September 2021 | 00623.00006.006

Prepared for:

Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096

Prepared by:

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
La Mesa, CA 91942

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ACRONYMS AND ABBREVIATIONS

AB	Assembly Bill
bgs	below ground surface
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
CAL FIRE	California Department of Forestry and Fire Protection
CalEEMod	California Emissions Estimator Model
Cal-OSHA	California Occupational Safety and Health Administration
Caltrans	California Department of Transportation
CAPCOA	California Air Pollution Control Officers Association
CARB	California Air Resources Control Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFC	chlorofluorocarbon
CH ₄	methane
CNDDDB	California Natural Diversity Database
CNEL	Community Noise Equivalent Level
CNPS	California Native Plant Society
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
CRHR	California Register of Historical Resources
CY	cubic yard(s)
dB	decibel
dBA	A-weighted decibel
DPM	diesel particulate matter
FEMA	Federal Emergency Management Agency
GHG	greenhouse gas
gpm	gallons per minute
HFC	hydrofluorocarbon
HP	horsepower
Hz	hertz
IBC	International Building Code
IS	Initial Study
kHz	kilohertz

ACRONYMS AND ABBREVIATIONS (cont.)

L _{DN}	Day Night sound level
MBTA	Migratory Bird Treaty Act
MEI	maximally exposed individual
mPa	micro Pascals
mph	miles per hour
MRZ	Mineral Resource Zone
MT	metric ton
N ₂ O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NO _x	nitrogen oxides
NPDES	National Pollution Discharge Elimination System
NSLU	noise sensitive land use
O ₃	ozone
OSHA	Occupational Safety and Health Administration
OWD	Otay Water District
PFC	perfluorocarbon
PM ₁₀	particulate matter less than 10 microns in diameter
PM _{2.5}	particulate matter less than 2.5 microns in diameter
PPV	peak particle velocity
RWQCB	Regional Water Quality Control Board
SANDAG	San Diego Association of Governments
SB	Senate Bill
SDAB	San Diego Air Basin
SDAPCD	San Diego Air Pollution Control District
SF ₆	sulfur hexafluoride
SIP	State Implementation Plan
SO ₂	sulfur dioxide
SPL	sound pressure level
SR	State Route
STC	Sound Transmission Class
TAC	toxic air contaminant
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
VOC	volatile organic compounds

DRAFT MITIGATED NEGATIVE DECLARATION

1. Project title: Cottonwood Sewer Lift Station Replacement Project
2. Project description: The Project involves the replacement of an existing sewer lift station with a new and expanded sewer lift station on the adjacent property and the expansion an existing access road that provides access to the lift station. The proposed lift station would have a capacity of between 500 and 600 gallons per minute (gpm) and would replace the existing 400-gpm lift station. The expanded capacity would be to serve anticipated development in the area. In addition to expanding lift station capacity, the Project would increase the overall property area to allow for storage and greater functionality.
3. Project location: The Project is located in the unincorporated community of Jamul in eastern San Diego County, 0.9 mile north of State Route (SR) 94 and 0.6 mile southeast of SR 54. The Project site extends north from the western terminus of Par 4 Drive, approximately 1,500 feet west of Steele Canyon Road, and is partially within an abandoned area of the golf course associated with the Cottonwood Golf Club.
4. Lead Agency: Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096

The Lead Agency, having reviewed the Initial Study for this Project, does hereby find and declare that the Project will not have a significant effect on the environment. A brief statement of the reasons supporting the Lead Agency's findings are as follows:

An Initial Study was conducted to evaluate the potential effects of this Project upon the environment. Based upon the findings contained in the attached Initial Study, it has been determined that this Project would have a less than significant impact on the environment. The Initial Study concluded that potentially significant impacts would occur with respect to biological resources (San Diego ambrosia, coastal California gnatcatcher, Cooper's hawk, and other birds and raptors), cultural resources (archaeological resources and human remains), hazards and hazardous materials (wildland fire), noise (during both Project construction and operation), tribal cultural resources, and wildfire; however, impacts would be less than significant with mitigation. Potential impacts to biological resources would be avoided through construction monitoring, pre-construction surveys, noise attenuation, and resource avoidance. Potential impacts to cultural resources and tribal cultural resources would be avoided through monitoring of ground-disturbing construction activities. Potential impacts related to hazards and hazardous materials and wildfire would be avoided through implementation of a construction fire safety plan. Potential impacts related to noise would be avoided through implementation of a construction noise management plan and through noise attenuation of the proposed lift station and generator. The Project would result in less than significant or no impacts to the following environmental issues areas: aesthetics, agriculture and forestry resources, air quality, energy, geology and soils, greenhouse gas emissions, hydrology and water quality, land use and

planning, mineral resources, population and housing, public services, recreation, transportation, and utilities and service systems. Accordingly, a Draft Mitigated Negative Declaration has been prepared.

The Lead Agency hereby finds that the Mitigated Negative Declaration reflects its independent judgment. A copy of the Initial Study is attached.

The location and custodian of the documents and other materials which constitute the record of proceedings upon which the Lead Agency based its decision to adopt this Mitigated Negative Declaration are as follows:

Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096
<https://otaywater.gov/about-otay/news-and-documents/publications-and-public-notices/>

8/26/21
Date

Lisa Colman-Boyd
Staff Signature

1.0 INTRODUCTION

The following Initial Study (IS) addresses the environmental impacts associated with the construction and operation of Otay Water District's (herein referred to as "OWD") proposed Cottonwood Sewer Lift Station Replacement Project (herein referred to as "Project" or "proposed Project"). The purpose of the proposed Project is to replace and expand the existing sewer lift station to provide increased sewer capacity for planned development in the Project area. This IS has been prepared in accordance with the *California Environmental Quality Act of 1970 (CEQA)*, as amended, and the *State CEQA Guidelines*.

1.1 INITIAL STUDY INFORMATION SHEET

1. Project title: Cottonwood Sewer Lift Station Replacement Project
2. Lead agency name and address: Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096
3. Contact person and phone number: Lisa Coburn-Boyd
619-670-2219
4. Project location: The Project site is located at the western terminus of Par 4 Drive in unincorporated San Diego County.
5. General plan designation: Open Space (Recreation)
6. Zoning: S88 (Specific Plan Area)
7. Description of Project:

The Cottonwood Sewer Lift Station Replacement Project (Project) is located in the unincorporated community of Jamul in eastern San Diego County, 0.9 mile north of State Route (SR) 94 and 0.6 mile southeast of SR 54 (see Figure 1, *Regional Location*). The Project site extends north from the western terminus of Par 4 Drive, approximately 1,500 feet west of Steele Canyon Road, and is partially within an abandoned area of the golf course associated with the Cottonwood Golf Club (see Figure 2, *Aerial Photograph*). Access to the site is provided via Par 4 Drive and Steele Canyon Road, either from SR 94 to the south or from Willow Glen Drive and SR 54 to the north.

OWD proposes the Project to replace an existing sewer lift station with a new and expanded sewer lift station on the adjacent property and expand an existing access road that provides access to the lift station. The existing lift station is located within a 40-foot by 40-foot OWD easement. The existing access road runs south from the existing lift station through a 20-foot wide by 312-foot long OWD easement to the western terminus of Par 4 Drive. The total area of the existing easements is 0.18 acre. As part of the Project, OWD would acquire 0.19 acre of property to the west of the existing easements, resulting in a total Project site area of 0.37 acre (see Figure 3, *Site Plan*).

The proposed lift station would have a capacity of between 500 and 600 gallons per minute (gpm) and would replace the existing 400-gpm lift station. The expanded capacity would be to serve anticipated

development in the area. In addition to expanding lift station capacity, the Project would increase the overall property area to allow for storage and greater functionality (e.g., maintenance trucks being able to turn around).

The Project site would include the lift station structure, a diesel-powered emergency backup generator, an emergency storage tank, an existing transformer (to remain), and the expanded access road. The lift station structure would house a below-grade wet well and dry well, two 40-horsepower (HP) pumps, a fan for ventilation, and a control room. The generator, emergency storage tank, and existing transformer would be located on a concrete pad that would surround the lift station structure. The emergency storage tank would have a capacity of approximately 40,000 gallons, or enough to provide at least two hours of storage. During normal operations, the lift station would be powered by the existing on-site transformer that currently powers the existing lift station. The emergency backup generator would power the lift station in the instance of failure of the transformer.

The lift station would tie in to and receive wastewater flows from an existing 10-inch gravity sewer, located at a depth of 12 feet below ground surface (bgs) at the site, that conveys wastewater west from residential development located to the east of the site. After being pumped at the lift station, the wastewater would be discharged into an existing 6-inch sewer force main, located approximately four feet bgs at the site, then be conveyed east and then north along Steele Canyon Road to an existing gravity sewer in Willow Glen Drive. The flows would then be conveyed via existing pipelines to OWD's Ralph W. Chapman Water Recycling Facility, located approximately 0.8 mile southwest of the intersection of SR 94 and SR 54, where it would be treated.

The existing lift station would remain in operation until the new lift station is constructed and ready for operation to allow for continuous wastewater conveyance. Once the new lift station becomes operational, the existing lift station would be demolished.

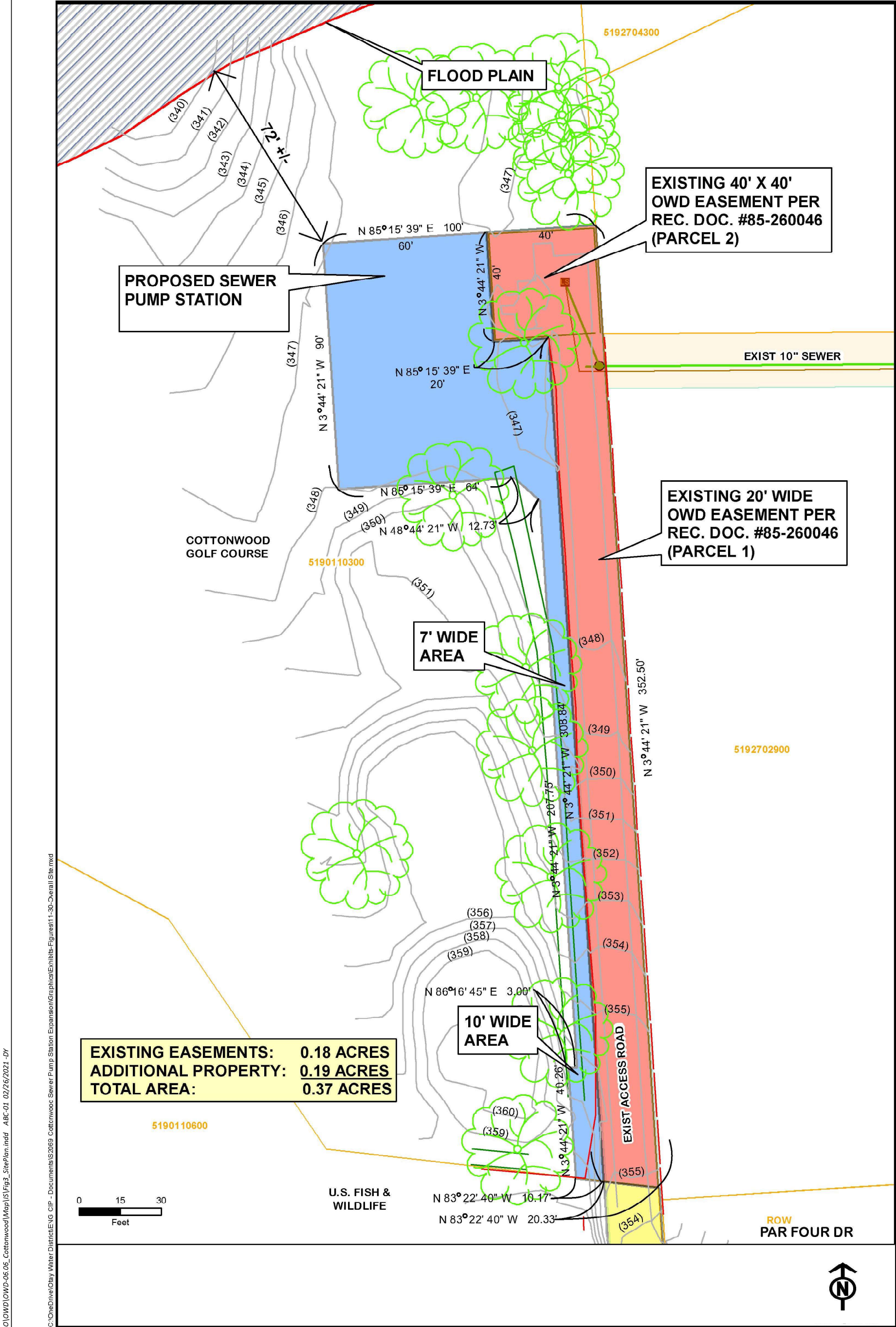
Construction of the Project would require site preparation to clear existing vegetation, excavation for the below-grade wet well and dry well, light grading for the site area surrounding the lift station and for the expanded access road, construction of the lift station structure and site area pad, installation and connection of facilities, paving, and demolition of existing structures. Construction is expected to last approximately one year and would occur between the hours of 7:00 a.m. and 7:00 p.m. in accordance with the County of San Diego Municipal Code. Excavation is currently estimated to result in 1,500 cubic yards (CY) of export, which would be either taken by the adjacent golf course property or transported to an existing legal disposal site. Construction staging would occur either within the Project site or within adjacent disturbed areas of the abandoned golf course.

The proposed facilities would be designed and constructed in conformance with pertinent engineering standards, including applicable elements of the Water Agencies' Standards *Design Guidelines for Water, Recycled Water and Sewer Facilities* and *Standard Specifications for Water, Recycled Water and Sewer Facilities*, which OWD has adopted as their design and construction standards. The Project would also conform to current versions of the International Code Council *International Building Code* (IBC) and the related California Building Standards Commission *California Building Code* (CBC).

Once construction activities are complete, activities on site would be limited to routine maintenance of facilities, consistent with the requirements of the current lift station. The diesel-powered backup generator would run a maximum of 50 hours annually for maintenance and testing purposes, and then when normal power supply is lost.



I:\PROJECTS\10\OWD\OWD-06.06 Cottonwood Map [S]Fig2 Aerial.mxd OWD-06.06 2/26/2021 -DY



Source: Otay Water District (2021)

Site Plan

Figure 3

8. Surrounding land uses and setting:

The Project site and land to the north and west are developed with a golf course and have a land use designation of Open Space (Recreation). Land to the east and southeast is developed with single family residences and has a land use designation of Semi-Rural Residential. Land to the southwest includes the San Diego National Wildlife Refuge and has a land use designation of Public Agency Lands.

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

- County of San Diego Excavation Permit
- Regional Water Quality Control Board (RWQCB) Groundwater Discharge Permit (if necessary)

10. Have California Native American tribes traditionally and culturally affiliated with the Project area requested consultation pursuant to Public Resources Code Section 21080.3.1? If so, is there a plan for consultation that includes, for example, the determination of significance of impacts to tribal cultural resources, procedures regarding confidentiality, etc.?

Pursuant to Public Resources Code Section 21080.3.1 (Assembly Bill 52), California Native American tribes traditionally and cultural affiliated with the project area can request notification of projects in their traditional cultural territory. At this time, no Native American tribes have requested that OWD provide notification to the tribe of projects in the tribe's area of traditional and cultural affiliation. As part of the Cultural Resources Study prepared for the Project, the Native American Heritage Commission (NAHC) was contacted for a Sacred Lands File search on February 23, 2021. The NAHC responded on March 8, 2021, indicating that the search results were positive and that the Ewiiapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians should be contacted for more information. These tribes, along with other Native American representatives and interested parties identified by the NAHC, were contacted in March 2021. To date, one response has been received: the Viejas Band of Kumeyaay Indians stated that the area containing the Project site has cultural significance or ties to Viejas. Viejas requested that a Kumeyaay Native American monitor be on site for ground-disturbing activities and to be informed of any discoveries found during construction. In addition, a tribal representative from Jamul Indian Village was present during the pedestrian survey undertaken for the Project.

1.2 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” or “Less than Significant with Mitigation Incorporated” as indicated by the checklist on the following pages.

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

1.3 DETERMINATION

On the basis of this initial evaluation:

<input type="checkbox"/>	I find that the proposed Project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.
<input checked="" type="checkbox"/>	I find that although the proposed Project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.
<input type="checkbox"/>	I find that the proposed Project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.
<input type="checkbox"/>	I find that the proposed Project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.
<input type="checkbox"/>	I find that although the proposed Project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed Project, nothing further is required.

Lisa Coburn-Boyd
Signature

8/26/21
Date

Lisa Coburn-Boyd
Printed Name

Environmental Compliance Specialist
For Otay Water District

2.0 ENVIRONMENTAL INITIAL STUDY CHECKLIST

The lead agency has defined the column headings in the environmental checklist as follows:

- A. “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.
- B. “Less Than Significant with Mitigation Incorporated” applies where the inclusion of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” All mitigation measures are described, including a brief explanation of how the measures reduce the effect to a less than significant level. Mitigation measures from earlier analyses may be cross-referenced.
- C. “Less Than Significant Impact” applies where the project does not create an impact that exceeds a stated significance threshold.
- D. “No Impact” applies where a project does not create an impact in that category. “No Impact” answers do not require an explanation if they are adequately supported by the information sources cited by the lead agency which 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 would not expose sensitive receptors to pollutants, based on a project specific screening analysis).

The explanation of each issue identifies the significance criteria or threshold used to evaluate each question; and the mitigation measure identified, if any, to reduce the impact to less than significance. 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 [CEQA Guidelines Section 15063(c)(3)(D)]. Where appropriate, the discussion identifies the following:

- a) Earlier Analyses Used. Identifies where earlier analyses are available for review.
- b) Impacts Adequately Addressed. Identifies which effects from the checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and states 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,” describes the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

I. AESTHETICS

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

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

Less Than Significant Impact. Scenic vistas in the vicinity of the Project site are associated with the Sweetwater River valley and surrounding mesas and mountainous topography. The Project would introduce visible aboveground components during construction and operation; however, these components would not have a substantial adverse effect on a scenic vista. During Project construction, equipment and vehicles would be present at the Project site, but Project construction would be temporary (approximately one year) and relatively minor in extent, requiring only a few pieces of equipment at any one time. During Project operations, new permanent visible components of the Project would include the lift station structure, generator, storage tank, and a wall and/or fencing surrounding the site. Based on the location of the Project components at the end of a private access road and between private residential properties and a decommissioned golf course, the components would generally not be visible to members of the public or obstruct scenic vistas. In addition, based on the existing vegetation providing screening between the residential properties to the east and the Project site, and the relatively small scale of the proposed components, the Project would not have an adverse effect on a scenic vista for adjacent residences. As such, impacts would be less than significant.

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

No Impact. There are five highways in the San Diego region that are officially designated by the California Department of Transportation (Caltrans) as state scenic highways, including SR 52 (from Santo Road to Mast Boulevard, adjacent to Mission Trails Regional Park), SR 75 (San Diego-Coronado Bay Bridge and Silver Strand), SR 78 (adjacent to Anza Borrego State Park), SR 163 (adjacent to Balboa Park), and SR 125 (from Interstate 8 to SR 94; Caltrans 2019). None of the officially designated highways is in

proximity to the Project site. One eligible scenic highway, SR 94 from Interstate 8 to SR 125, is located approximately 0.8 mile south of the Project site. The Project site is not visible from SR 94 due to distance and intervening topography and development. As such, the Project would not damage scenic resources within a state scenic highway and impacts would occur.

- 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?

Less Than Significant Impact. As discussed in Item I(a), above, equipment and vehicles would be present at the Project site during Project construction, but construction would be temporary (approximately one year) and relatively minor in extent, requiring only a few pieces of equipment at any one time. During Project operations, new permanent visible components of the Project would include the lift station structure, generator, storage tank, and a wall and/or fencing surrounding the site. Based on the location of the Project components at the end of a private access road and between private residential properties and a decommissioned golf course, the components would generally not be visible to members of the public. Further, the Project would replace an existing lift station and would not represent a considerable change from or substantially degrade the existing visual character of the site. As such, impacts would be less than significant.

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

Less Than Significant Impact. Project construction would occur between of 7:00 a.m. and 7:00 p.m. in accordance with the County of San Diego Municipal Code and is anticipated to be limited to daylight hours within that timeframe. It is therefore not expected that the Project would utilize construction lighting. Little to no lighting would be required for operation of the proposed facilities. Additionally, the Project would not include surface structures with the potential to generate substantial glare (e.g., higher profile glass or stainless-steel facilities). As a result, impacts related to light or glare would be less than significant.

II. AGRICULTURE AND FORESTRY RESOURCES

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

	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"/>
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"/>
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"/>

- 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?

No Impact. According to the California Department of Conservation's Farmland Mapping and Monitoring Program, the Project site is mapped as Urban and Built-Up Land (California Department of Conservation 2016). As such, implementation of the Project would not convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use. No impact would occur.

- b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. The Project site is zoned as Specific Plan Area (S88) and is not subject to a Williamson Act contract. Although land to the east of the Project site is zoned as Limited Agriculture (A70), it is developed with residential land uses, is designated as Urban and Built-Up Land by the California Department of Conservation (2016) and is not under Williamson Act contract. As such, the Project would not conflict with existing zoning for agricultural use or a Williamson Act contract, and no impact would occur.

- 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))?

No Impact. The Project site is zoned as Specific Plan Area (S88) and has a land use designation of Open Space (Recreation). The Project site is not designated or zoned for forest land, timberland, or timberland zoned Timberland Production. As such, implementation of the Project would not conflict with existing zoning for such lands, and no impact would occur.

d) Result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. The Project site is not located within or adjacent to areas designated or zoned as forest land. It also does not support forests. As a result, implementation of the Project would not convert forest land to non-forest use, and no impact would occur.

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?

No Impact. There are no agriculture- or forestry-related uses located within or adjacent to the Project site. Although land to the east of the Project site is zoned as Limited Agriculture (A70), it is developed with residential land uses and is designated as Urban and Built-Up Land by the California Department of Conservation (2016). As such, the proposed Project would not involve changes that could result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and no impact would occur.

III. AIR QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the Project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>

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

Less Than Significant Impact. The Project site is located within the San Diego Air Basin (SDAB) under the jurisdiction of the South Diego Air Pollution Control District (SDAPCD). SDAPCD develops and administers local regulations for stationary air pollutant course within the SCAB and develops plans and programs to meet attainment requirements for both the National Ambient Air Quality Standards (NAAQS) and California Ambient Air Quality Standards (CAAQS). SDAPCD and the San Diego Association of Governments (SANDAG) are responsible for developing and implementing the air plan for attainment and maintenance of ambient air quality standards in the SDAB. The regional air quality plan for San Diego County is SDAPCD's 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone

in San Diego County (Attainment Plan; SDAPCD 2020). The Attainment Plan, which would be a revision to the state implementation plan (SIP), outlines SDAPCD's plans and control measures designed to attain the NAAQS for ozone. These plans accommodate emissions from all sources, including natural sources, through implementation of control measures, where feasible, on stationary sources to attain the standards. Mobile sources are regulated by the U.S. Environmental Protection Agency (USEPA) and California Air Resources Control Board (CARB), and the emissions and reduction strategies related to mobile sources are considered in the Attainment Plan and SIP.

The Attainment Plan relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population and vehicle trends and land use plans developed by the cities and by the County. As such, projects that propose development that is consistent with the growth anticipated by the local jurisdictions' general plans would be consistent with the Attainment Plan.

The Project would replace an existing lift station to increase capacity to serve anticipated population growth in the area; the Project itself would not cause or generate population growth. Jobs associated with construction of the new lift station would be filled by the local labor pool and jobs associated with operation of the new lift station would be filled by existing employees servicing the existing lift station. The Project would not create conditions for population or employment growth that exceeds estimates for the area. As such, the Project would be consistent with growth anticipated in the County general plan and would not conflict with the Attainment Plan. Impacts would be less than significant.

- 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?

Less Than Significant Impact. The Project would generate emissions of criteria pollutants during construction and operation. Criteria pollutants include carbon monoxide (CO), nitrogen oxides (NO_x), ozone (O₃), particulate matter less than 10 microns in diameter (PM₁₀), particulate matter less than 2.5 microns in diameter (PM_{2.5}), sulfur dioxide (SO₂), and lead. In analyzing cumulative criteria pollutant emissions impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is listed as nonattainment for the CAAQS and the NAAQS. The SDAB has been designated as a federal nonattainment area for O₃, and a State nonattainment area for O₃, PM₁₀, and PM_{2.5} (SDAPCD 2017). Since few sources emit O₃ directly, and O₃ is caused by complex chemical reactions, control of O₃ is accomplished by the control of emissions of the precursors NO_x and volatile organic compounds (VOCs). By its very nature, air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development within the air basin. Thus, this regional impact is a cumulative impact, and projects would contribute to this impact only on a cumulative basis. No single project would be sufficient in size, by itself, to result in nonattainment of the regional air quality standards. Consequently, if a project's emissions do not exceed identified screening level thresholds, its emissions would not result in a cumulatively considerable contribution to the significant cumulative impact.

To determine whether the Project would result in a cumulatively considerable increase of PM_{2.5}, PM₁₀, or exceed quantitative thresholds for ozone precursors (i.e., NO_x and VOCs), contribute substantially to a projected air quality violation, or have an adverse effect on human health, Project emissions may be evaluated based on the quantitative emission thresholds established by the SDAPCD. As part of its air

quality permitting process, the SDAPCD has established thresholds in Rules 20.2 and 20.3 for the preparation of Air Quality Impact Assessments. In the absence of a SDAPCD adopted thresholds VOCs, the South Coast Air Quality Management District's (SCAQMD's) screening thresholds for VOCs are used (SCAQMD 2019). The screening thresholds used in this analysis are presented in Table 1, *Screening-level Thresholds for Air Quality Impact Analysis*.

Table 1
SCREENING-LEVEL THRESHOLDS FOR AIR QUALITY IMPACT ANALYSIS

Criteria Pollutant	Emission Threshold (pounds per day)	Emission Threshold (pounds per day)
	Construction	Operation
Particulate Matter (PM ₁₀)	100	100
Particulate Matter (PM _{2.5})	55	55
Oxides of Nitrogen (NO _x)	250	250
Oxides of Sulfur (SO _x)	250	250
Carbon Monoxide (CO)	550	550
Volatile Organic Compounds (VOCs)	75	75

Source: SDAPCD Rules 20.2 and 20.3; SCAQMD 2019

Construction

Project construction would result in emissions of criteria pollutants and O₃ precursors during site preparation, excavation, material hauling, light grading, structure construction, facilities installation, demolition of existing structures, and paving. Emissions would include those associated with equipment operation and earth movement at the site, the transport of construction materials and equipment to the site, and worker vehicles traveling to and from the site. Generation of these emissions would be temporary.

Criteria pollutant and ozone precursor emissions from Project construction were assessed using the California Emissions Estimator Model (CalEEMod), Version 2020.4.0. CalEEMod is a computer model developed by SCAQMD with the input of several air quality management and pollution control districts to estimate criteria air pollutant emissions from various urban land uses. Construction input data for CalEEMod include but are not limited to: (1) the anticipated start and finish dates of construction activity, (2) inventories of construction equipment to be used, (3) areas to be excavated and graded, and (4) volumes of materials to be exported from and imported to the Project area. This analysis assesses maximum daily emissions from the individual construction activities listed above. Project excavation is estimated to require 1,500 CY of export of excavated material. Construction emission calculations presented herein assume the implementation of standard dust control best management practices (BMPs), including watering two times daily during grading, ensuring that all exposed surfaces maintain a minimum soil moisture of 12 percent, and limiting vehicle speeds on unpaved roads to 15 miles per hour (mph). A complete listing of the assumptions used in the analysis and model output is provided in Appendix A.

The Project's estimated maximum daily emissions are shown in Table 2, *Estimated Maximum Daily Construction Emissions*. Maximum emissions would occur during structure construction in 2023.

Table 2
ESTIMATED MAXIMUM DAILY CONSTRUCTION EMISSIONS

Phase	PM₁₀*	PM_{2.5}*	NO_x*	SO_x*	CO*	VOCs*
Site Preparation – 2023	<0.5	<0.5	1	<0.5	1	<0.5
Excavation – 2023	<0.5	<0.5	7	<0.5	9	1
Material Hauling – 2023	<0.5	<0.5	3	<0.5	1	<0.5
Light Grading – 2023	<0.5	<0.5	1	<0.5	1	<0.5
Structure Construction – 2023	1	1	18	<0.5	17	2
Structure Construction – 2024	1	1	17	<0.5	17	2
Facilities Installation – 2024	<0.5	<0.5	4	<0.5	4	<0.5
Demolition – 2024	<0.5	<0.5	7	<0.5	9	1
Paving – 2024	<0.5	<0.5	3	<0.5	4	<0.5
Maximum Daily Emissions	1	1	18	<0.5	17	2
<i>SDAPCD Regional Thresholds</i>	<i>100</i>	<i>55</i>	<i>250</i>	<i>250</i>	<i>550</i>	<i>75</i>
Significant Impact?	No	No	No	No	No	No

CalEEMod outputs provided in Appendix A.

* Pollutant Emissions (pounds per day)

VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = oxides of sulfur;

PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter

As shown in Table 2, criteria pollutant and ozone precursor emissions would not exceed the respective screening thresholds. Therefore, construction of the Project would not result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health. In addition, actual emissions could be less than those forecasted due to the conservative nature of the assumptions incorporated into the CalEEMod program regarding phasing. If construction is delayed or occurs over a longer time period, emissions could be reduced because of (1) a more modern and cleaner-burning construction equipment fleet mix and/or (2) a less intensive buildout schedule (i.e., fewer daily emissions occurring over a longer time interval). As such, construction period impacts would be less than significant.

Operations

The Project's operational emissions of criteria pollutants and O₃ precursors were estimated using CalEEMod. Operational sources of emissions considered in the model for air pollutant emissions include area sources, mobile sources, energy sources, and stationary sources. Area sources typically involve consumer products, architectural coatings, and landscaping equipment. Mobile sources for the Project would include a daily maintenance trip to and from the site. Air pollutant emissions associated with energy sources are generally related to the on-site combustion of natural gas; the Project would not involve the use of natural gas. Stationary sources for the Project would include one back generator assumed to be tested for 15 minutes once per month. A complete listing of the assumptions used in the analysis and model output is provided in Appendix A.

The Project's estimated maximum daily operational emissions are shown in Table 3, *Maximum Daily Operational Emissions*.

Table 3
MAXIMUM DAILY OPERATIONAL EMISSIONS

Source	PM₁₀*	PM_{2.5}*	NO_x*	SO_x*	CO*	VOCs*
Area	0	0	0	0	<0.5	<0.5
Energy	0	0	0	<0.5	0	0
Mobile	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Stationary	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Maximum Daily Emissions	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
<i>SDAPCD Regional Thresholds</i>	<i>100</i>	<i>55</i>	<i>250</i>	<i>250</i>	<i>550</i>	<i>75</i>
Significant Impact?	No	No	No	No	No	No

CalEEMod outputs provided in Appendix A.

* Pollutant Emissions (pounds per day)

VOCs = volatile organic compounds; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = oxides of sulfur;

PM₁₀ = particulate matter less than 10 microns in diameter; PM_{2.5} = particulate matter less than 2.5 microns in diameter

As shown in Table 3, criteria pollutant and ozone precursor emissions would not exceed the respective screening thresholds. Therefore, operation of the Project would not result in a cumulatively considerable net increase of any criteria pollutant, contribute substantially to a project air quality violation, or have an adverse effect on human health. As such, operational impacts would be less than significant.

c) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact. Sensitive receptors (i.e., children, senior citizens, and acutely or chronically ill people) are more susceptible to the effects of air pollution than the general population. Land uses considered sensitive uses are those that accommodate sensitive receptors on a regular basis and for extended periods of time and typically include residences, schools, playgrounds, childcare centers, hospitals, convalescent homes, and retirement homes. The nearest sensitive receptor land use to the Project site are the single-family residential properties located immediately east of the Project site.

Construction

Construction activities would result in short-term, Project-generated emissions of diesel particulate matter (DPM) from the exhaust of off-road, heavy-duty diesel equipment used for the Project's various construction activities. CARB identified DPM as a toxic air contaminant (TAC) in 1998. The dose to which receptors are exposed is the primary factor used to determine health risk. Dose is a function of the concentration of a substance or substances in the environment and the duration of exposure to the substance. Thus, the risks estimated for a maximally exposed individual (MEI) are higher if a fixed exposure occurs over a longer time period. According to the Office of Environmental Health Hazard Assessment, health risk assessments, which determine the exposure of sensitive receptors to TAC emissions, should be based on a 30-year exposure period; however, such assessments should be limited to the period/duration of activities associated with the Project.

The residences to the east of the Project site would have the potential to be exposed to DPM emissions; however, as presented above in Table 2, maximum daily particulate emissions, which include DPM, are estimated at one pound per day for both PM₁₀ and PM_{2.5}, which are well below their respective SDAPCD screening-level thresholds of 100 pounds per day and 55 pounds per day. Additionally, the construction period would be relatively short, especially when compared to 30-year exposure duration period that

typically requires a full health risk assessment. Combined with the highly dispersive properties of DPM, construction-related emissions of TACs would not expose sensitive receptors to substantial emissions of TACs. Construction impacts to sensitive receptors would be less than significant.

Operations

With regard to long-term operations, the CARB *Air Quality and Land Use Handbook* (CARB 2005) lists prominent air pollution sources as high traffic freeways and roads; distribution centers; rail yards; ports; refineries; chrome plating facilities; dry cleaners; and large gas dispensing facilities. The Project would replace an existing lift station and would not include the types of uses that have been identified as sources of air pollution by CARB. Further, as shown above in Table 3, particulate matter emissions during Project operations would be well below SDAPCD screening level thresholds of 100 pounds per day for PM₁₀ and 55 pounds per day for PM_{2.5}. In addition, the Project would not place sensitive receptors within the CARB siting distances of the listed air pollutant sources. Operational impacts to sensitive receptors would be less than significant.

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

Less Than Significant Impact. During the Project's construction period, emission-related odors from construction equipment/vehicles (particularly diesel exhaust) may occur temporarily in the immediately surrounding area. Specifically, construction equipment and vehicles could intermittently emit diesel exhaust perceptible by nearby receptors along roadways (i.e., from transport vehicles) and near the Project site during construction. These odors would not affect a substantial number of people, as construction activities (including vehicle trips) would be minor in duration and extent. Diesel-powered construction equipment and vehicles would also be required to comply with the State Airborne Toxic Control Measure standards for diesel particulate matter emissions. Operationally, the lift station facilities would be enclosed, which would limit off-site odor impacts. Although the pump room would be ventilated, there would be no venting of wastewater. The Project would also not represent a substantial change from existing conditions in regard to potential operational odors. As such, the Project would not create odors that would affect a substantial number of people and associated potential impacts would be less than significant.

IV. BIOLOGICAL RESOURCES

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

	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 US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>
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"/>

The following discussion is based on the Biological Assessment prepared for the Project by HELIX Environmental Planning, Inc. (HELIX 2021a) and included as Appendix B to this IS. To determine the presence of biological resources within the Project study area, defined as the Project boundary (refer to Figure 2) plus a 100-foot buffer, HELIX performed a general biological survey and two rare plant surveys. Prior to conducting the field surveys, HELIX conducted a thorough review of relevant maps, databases, and literature pertaining to biological resources known to occur within the study area. Special-status species and habitat databases reviewed included the U.S. Fish and Wildlife Service (USFWS) species records, California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDB), Calflora database, SanBIOS, and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants.

- 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?

Less Than Significant with Mitigation Incorporated. The following discussion includes an analysis of special status plant species and animal species.

Special Status Plant Species

Special status plant species have been afforded special-status and/or recognition by the USFWS and/or CDFW. They may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. Sensitive species are those considered unusual or limited in that they are: (1) only found in the region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region. One sensitive plant species was observed within the study area, including immediately adjacent to the Project footprint: San Diego ambrosia (*Ambrosia pumila*; refer to Figure 4, *Vegetation Communities and Sensitive Resources*). No additional sensitive plant species have a potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the study area.

Approximately 10 individual San Diego ambrosia occur within the fence line separating the Project footprint from the adjacent open space. These individuals are not expected to be affected by Project implementation due to their location outside of the Project's planned work areas; however, they could be inadvertently affected during construction if construction happens to extend outside of the anticipated work areas and encroach upon these individuals. Impacts are therefore considered potentially significant and mitigation measure MM-BIO-1 would be required.

Special Status Animal Species

Special status animal species include those that have been afforded special-status and/or recognition by the USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

One special-status animal species was observed within or adjacent to the study area: Cooper's hawk (*Accipiter cooperii*). The one individual was detected within suitable nesting trees within the abandoned portion of Cottonwood Golf Club west of the Project footprint. One additional sensitive animal species has a high potential to occur: coastal California gnatcatcher (*Poliophtila californica californica*). Coastal California gnatcatcher, which is federally threatened and a CDFW Species of Special Concern, has been reported within coastal sage scrub immediately south of the Project footprint. Although the proposed critical habitat for the Hermes copper butterfly occurs south of the Project footprint, the Project footprint and immediate surrounding areas lack suitable habitat for this species; therefore, Hermes copper butterfly is not expected to be present at the Project site. No other special status species have a high potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the study area.

Trees and shrubs both within and adjacent to the study area could provide suitable nesting habitat for numerous bird species known to the region. Three raptor species were observed during the general biological survey: Cooper's hawk, red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). Additionally, several other species have the potential to forage in the Project vicinity. The study area provides moderate-quality raptor habitat due to the disturbed nature of the former recreational area, residential, and transportation uses. Extensive raptor foraging habitat occurs off-site in the Project vicinity within undeveloped areas to the north of the Project.

Direct impacts to the coastal California gnatcatcher are not expected as no direct impacts would occur to suitable habitat for this species; however, this species has the potential to nest off-site, within

500 feet of Project construction, and therefore has the potential to be subject to significant noise-related indirect impacts. Such impacts would be significant if breeding individuals become displaced from their nests and fail to breed. Mitigation measure MM-BIO-2 would therefore be required to avoid potentially significant impacts.

Direct (from habitat removal) and/or noise-related indirect impacts to Cooper's hawk and other birds/raptors protected under the Migratory Bird Treaty Act (MBTA) could occur from Project construction during the general bird breeding season (January 15 to August 31) due to the presence of suitable nesting habitat. Mitigation measure MM-BIO-3 would therefore be required to avoid potentially significant impacts.

Mitigation

The following mitigation measures are required to reduce potential impacts to San Diego ambrosia, coastal California gnatcatcher, Cooper's hawk, and other birds/raptors protected under the MBTA to less-than-significant levels.

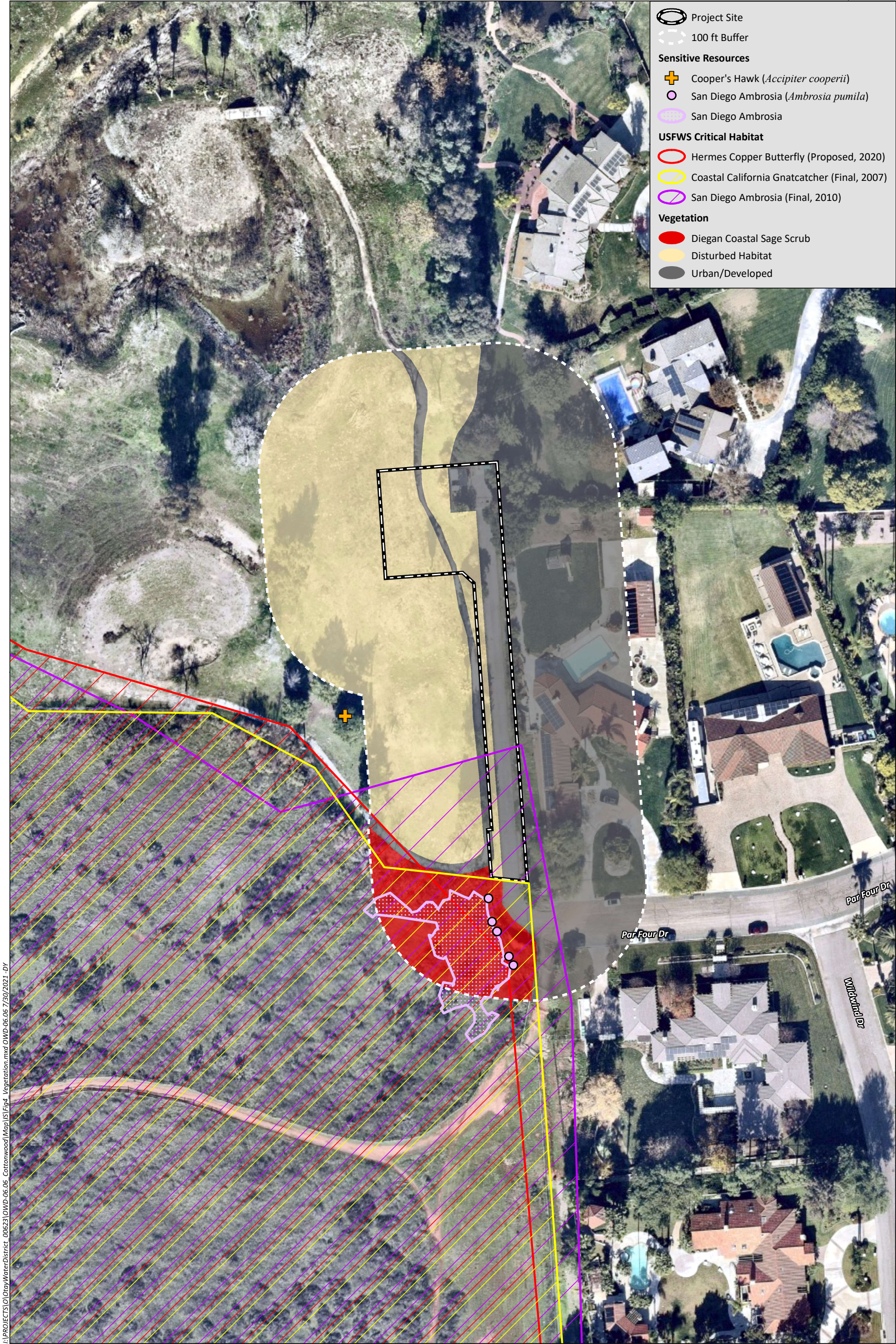
MM-BIO-1 Biological Construction Monitoring. A qualified biologist shall conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources, including special-status species, in the local area and the avoidance measures in place to remain in compliance. The biologist shall periodically monitor construction activities to help ensure that Project activities occur within the approved Project limits and in compliance with required environmental conditions. The biologist shall identify and flag San Diego ambrosia occurring within the Project work area for avoidance.

MM-BIO-2 Coastal California Gnatcatcher Pre-Construction Surveys and Noise Attenuation. The following Project requirements regarding the coastal California gnatcatcher shall be shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur from February 15 to August 30, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of OWD:

(A) A qualified biologist (possessing a valid endangered species act section 10(a)(1)(A) Recovery Permit) shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 decibels (dBA) hourly average for the presence of coastal California gnatcatcher. A single pre-construction survey for the coastal California gnatcatcher shall be conducted within three days prior to the commencement of any construction. If gnatcatchers are present, then the following conditions must be met:

- (1) Beginning on February 15 and ending on August 30, no clearing, grubbing, or grading of occupied gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and



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- (2) Beginning on February 15 and ending on August 30, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license of registration with monitoring noise level experience with listed animal species) and approved by OWD at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or
- (3) At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dBA hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

*Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and OWD, as necessary, to reduce noise levels to below 60 dBA hourly average, or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

- (B) If coastal California gnatcatcher are not detected during the pre-construction survey, the qualified biologist shall submit substantial evidence to OWD and applicable resource agencies, which demonstrates whether or not mitigation measure such as noise walls are necessary between February 15 and August 30 as follows:
 - (1) If this evidence indicated the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then condition A(3) shall be adhered to as specified above.
 - (2) If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

MM-BIO-3 Nesting Bird Pre-Construction Surveys and Avoidance. Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible. If trimming, grubbing, or clearing of vegetation is proposed to occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist no more than seven days prior to vegetation clearing to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, trimming, grubbing, and clearing of vegetation shall be allowed to proceed. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist. Construction activities shall avoid any active nests until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.

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

No Impact. Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines. CDFW evaluates the rarity of natural communities using the NatureServe's Heritage Methodology (Faber-Langendoen et al. 2012), in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities are assigned an overall rank of 1 through 5, with 1 being considered very rare and threatened, and 5 being considered demonstrably secure. Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the CDFW.

The Project study area supports three vegetation communities: Diegan coastal sage scrub, disturbed habitat, and urban/developed land (refer to Figure 4 of Appendix B). Of these, Diegan coastal sage scrub is considered a sensitive vegetation community/habitat type. This vegetation community occurs entirely outside of the Project impact footprint and would not be affected by implementation of the Project. As such, no impacts to sensitive vegetation communities/habitat types would occur.

- 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?

No Impact. There are no jurisdictional wetlands or waterways within or adjacent to the Project footprint; therefore, the Project would not result in impacts to such resources.

- 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?

Less Than Significant Impact. Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Wildlife corridors can be local or regional in scale and may function in different ways, depending on species and time of year. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or manufactured constraints. Local corridors provide access to resources such as food, water, and shelter. Animals can use these corridors, such as

hillsides and tributary drainages to main drainages, to travel among different habitats (i.e., riparian and upland habitats). Some animals require riparian habitat for breeding and upland habitat for burrowing. Regional corridors provide these functions and also link two or more large areas of open space. Regional corridors also provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations.

The Project site by itself does not represent, nor does it contribute to, a wildlife corridor, linkage, or wildlife nursery site. The Project is sited within existing disturbed and developed land that is subject to maintenance. The replacement of the lift station would not act as a major impediment to wildlife movement, including access to nursery sites, foraging habitat, breeding habitat, water sources, or other areas necessary for their life history. Higher quality habitat that functions as a wildlife movement corridor occurs south of the Project footprint. The Project avoids, and is set back from, the habitat, with the closest Project elements separated from the habitat by existing barriers (i.e., fences). As the Project developments have been sited within existing disturbed and developed areas, the potential impact on wildlife movement and nursery sites would be less than significant.

- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. No local policies or ordinances pertaining to biological resources are applicable to the Project. The Project would primarily occur within a disturbed area that includes an existing lift station. No impact or conflict would occur.

- 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?

No Impact. OWD is not a participating entity in any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan; therefore, no impacts would occur to such plans. No conflict with an adopted plan would occur. Further, as discussed above, with mitigation the Project would not result in significant impacts to biological resources that may be protected under such plans.

V. CULTURAL RESOURCES

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

The following discussion is based on the Cultural Resources Study prepared for the Project by HELIX (HELIX 2021b) and included as Appendix C to this IS. The Cultural Resources Study included a records search of the Project area and a half-mile radius from the South Coastal Information Center (SCIC), a review of previously conducted studies, a Sacred Lands File search from the NAHC, a review of historic maps and photographs, and a field visit by a HELIX archaeologist and a Native American monitor. The results and conclusions of the study are summarized herein.

- a) Cause a substantial adverse change in the significance of a historical resource pursuant to §15064.5?

No Impact. The records search results indicated that eight cultural resources have been previously identified within a half-mile radius of the Project site. One of the resources, P-37-039116, which is the Cottonwood Golf Club, contains the Project site. The Cottonwood Golf Club consists of two 18-hole golf courses, associated structures, landscaping, and infrastructure, and was first recorded as a resource in 2019. Construction of the Cottonwood Golf Club began in 1962 with the Lakes Course, formerly known as the Monte Vista Course, on the western side of the property and the Ivanhoe Course on the eastern side; this included channeling the Sweetwater River within the property. The clubhouse, parking lot, maintenance facility, and the Ivanhoe Course were completed by 1964, and the Lakes Course was completed by 1968. Between 1989 and 1993, the Lakes Course was extended to the southwest. This resource was documented and evaluated as part of a different project and was found to be not eligible for the California Register of Historical Resources (CRHR) or San Diego County Local Register of Historic Resources (Reinicke and Mengers 2020). As such, the Project would not cause a substantial adverse change in the significance of a historical resource, and no impacts would occur.

- b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?

Less Than Significant with Mitigation Incorporated. As discussed above in Item V(a), one previously recorded resource, the Cottonwood Golf Club, overlaps the Project site. No archaeological resources have been recorded or are known to exist within the Project site or a half-mile radius and no resources were observed during the field visit. However, during the field visit, the Native American monitor stated that due of the sensitivity of the region surrounding the Sweetwater River, and because the existing lift station and sewer line may not have been monitored at the time of construction, that the Jamul Indian Village requests cultural resource monitoring to be performed during ground-disturbance activities. In addition, the NAHC indicated that the results of the Sacred Lands File search conducted for the Project were positive and that the Ewiiapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians should be contacted for more information. A list of tribal contacts from whom additional information can be solicited was provided with the NAHC's response—letters were sent to these contacts on March 23, 2021. To date, one response has been received: the Viejas Band of Kumeyaay Indians stated that the area containing the Project site has cultural significance or ties to Viejas. Viejas requested that a Kumeyaay Native American monitor be on site for ground-disturbing activities and to be informed of any discoveries found during construction. Therefore, though not anticipated, the Project could cause a substantial adverse change in the significance of unknown archaeological resources during ground-disturbing activities, and impacts are considered potentially significant. Mitigation measures MM-CUL-1 would be required.

Mitigation

The following mitigation measure is required to reduce potential impacts to archaeological resources to a less-than-significant level.

MM-CUL-1 Cultural Resources Monitoring. An archaeological and Native American monitoring program shall be implemented for the Project to ensure no inadvertent impacts occur to unknown subsurface cultural resources. The monitoring program shall include attendance by the archaeologist and a Kumeyaay Native American monitor at a preconstruction meeting with the construction contractor and the presence of archaeological and Native American monitors during initial ground-disturbing activities. Both archaeological and Native American monitors shall have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. If significant cultural material is encountered, the monitors shall coordinate with OWD staff to develop and implement appropriate mitigation measures. If the excavations for the Project are determined to be within disturbed soils with little potential for intact subsurface cultural material to be present, archaeological monitoring would be reduced or ceased. The Native American monitor shall determine the extent of their presence during soil-disturbing activities. If the Native American monitor determines that their presence is not warranted fulltime, their schedule shall be adjusted accordingly.

c) Disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant with Mitigation Incorporated. No human remains are known to exist in the Project area and no impacts to human remains are anticipated to occur as a result of the Project; however, due to the cultural sensitivity of the area, the potential exists to encounter and disturb unknown human remains during ground-disturbing activities. As such, impacts are considered potentially significant and mitigation measure MM-CUL-2 would be required.

Mitigation

The following mitigation measure is required to reduce potential impacts to human remains to a less-than-significant level.

MM-CUL-2 Procedure for Unanticipated Discovery of Human Remains. If human remains are encountered, Public Resources Code Section 5097.98 and California Health and Safety Code Section 7050.5 will be followed. If human remains are encountered no further disturbance shall occur until the County Coroner has made the necessary findings as to origin. Further, pursuant to California Public Resources Code Section 5097.98(b), remains shall be left in place and free from disturbance until a final decision as to the treatment and disposition has been made. If the County Coroner determines the remains to be Native American, the coroner shall contact the NAHC within 24 hours. Subsequently, the NAHC shall identify the person or persons it believes to be the “most likely descendant.” The most likely descendant shall then make recommendations and engage in consultations concerning the treatment of the remains as provided in Public Resources Code Section 5097.98.

VI. ENERGY

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

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

Less Than Significant Impact. The Project would consume energy during construction and operation. Energy used for Project construction would primarily consist of petroleum-based fuels in the forms of gasoline and diesel. Heavy-duty off-road construction equipment, haul trucks delivering and removing construction materials, and worker commute vehicles would consume these fuels. Project-related consumption of such energy resources for construction would be temporary, typical for this type of construction, and cease upon the completion of construction. In addition, mobile equipment energy usage during construction would be minimized as the Project would comply with the CARB's idling regulations, which restrict idling diesel vehicles and equipment to five minutes.

During Project operations, the lift station would use electricity provided by an existing on-site transformer, which would not represent a new use of energy resources. Additional minor sources of operational energy consumption would include a diesel-powered emergency generator that would be used for backup power in the instance of transformer failure, and occasional maintenance worker trips. Overall, the use of energy would be limited to necessary lift station operations. The Project would therefore not use energy in a wasteful, inefficient, or unnecessary manner, and impacts would be less than significant.

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

No Impact. The Project would be constructed and operated in accordance with applicable regulations, including, but not limited to, CARB regulations (as mentioned in Item VI[a]). Construction equipment and lift station operation equipment would be maintained to allow for continuous energy-efficient operations. Accordingly, the Project would not conflict with or obstruct plans for renewable energy or energy efficiency, and no impact would occur.

VII. GEOLOGY AND SOILS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input 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 checked="" type="checkbox"/>	<input type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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"/>
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"/>
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"/>
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"/>

- a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:
- i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42?

Less Than Significant Impact. The Project site is not located within a County Special Study Zone fault, an earthquake fault zone identified by the California Geological Survey, or an established Alquist-Priolo Earthquake Fault Zone (California Department of Conservation 2015). The closest fault zone to the Project site is the La Nacion fault zone, located approximately 8.5 miles southwest of the Project site. At this distance, the potential for fault rupture at the Project site is minimal. Impacts are therefore considered less than significant.

ii. Strong seismic ground shaking?

Less Than Significant Impact. Although the Project site is not located within a known earthquake fault zone (as discussed above in Item VII(a.i)), it is located within Seismic Zone 4, which is defined as the seismic zone with the most potential for seismic activity; therefore, the Project site, as with the entire County and most of southern California, is subject to seismic ground shaking (County 2011). An earthquake along known active faults in the region could cause ground shaking that could result in substantial adverse effects to the Project facilities, depending on factors such as event duration, motion frequency, and underlying soil/geologic conditions. The Project facilities, however, would be designed and constructed in conformance with applicable standards and guidelines, such as the “Greenbook” Standard Specifications for Public Work Construction, the CBC, and the IBC. These standards typically involve incorporating seismic factors into facility design, through efforts such as remedial grading (e.g., removal and/or reconditioning unsuitable soils), appropriate slope design and drainage, and use of properly engineered fill. Compliance with these standards and guidelines would reduce the potential impacts of seismic ground shaking to a less-than-significant level.

iii. Seismic-related ground failure, including liquefaction?

Less Than Significant Impact. Liquefaction and related effects such as dynamic settlement can be caused by seismic ground shaking. Loose (cohesionless), saturated, and granular (low clay/silt content) soils with relative densities of less than approximately 70 percent are the most susceptible to these effects. Liquefaction results in a rapid pore-water pressure increase and a corresponding loss of shear strength, with affected soils behaving as a viscous liquid. Surface and subsurface manifestations from these events can include loss of support for structures, excessive (dynamic) settlement, the occurrence of sand boils (i.e., sand and water ejected at the surface), and other effects such as lateral spreading (horizontal displacement on sloped surfaces as a result of underlying liquefaction).

Loose subsurface soils and near-surface groundwater is present beneath the Project site, allowing for the potential for liquefaction; however, as previously noted, the Project would be designed and constructed in conformance with associated regulatory and industry standards, including applicable elements of the “Greenbook” Standard Specifications for Public Work Construction, the CBC, and the IBC. Based on these considerations, potential impacts associated with liquefaction and related hazards from implementation of the proposed Project would be less than significant.

iv. Landslides?

Less Than Significant Impact. The occurrence of landslides and other types of slope failures (e.g., rock falls and mudflows) is influenced by a number of factors, including slope grade, geologic and soil characteristics, moisture levels, and vegetation cover. Landslides can be triggered by a variety of potentially destabilizing conditions or events, such as gravity, fires, precipitation, grading, and seismic activity. According to the County of San Diego General Plan, the Project site is located within an area identified as having a moderate landslide susceptibility (County 2011); however, the Project site itself

and the immediately surrounding areas are characterized by flat topography and are not considered to be at substantial risk of landslides. Further, as previously noted, the Project would be designed and constructed in conformance with associated regulatory and industry standards, including applicable elements of the “Greenbook” Standard Specifications for Public Work Construction, the CBC, and the IBC. As such, potential impacts related to landslide hazards from implementation of the Project would be less than significant.

b) Result in substantial soil erosion or the loss of topsoil?

Less Than Significant Impact. Potential erosion/topsoil impacts would be avoided or reduced below a level of significance through implementation of an erosion control plan by the contractor during construction. The erosion control plan would include construction and post-construction BMPs to reduce potential effects to surface water quality due to storm water runoff pollution from the construction site. Such BMPs would include erosion control/stabilizing measures in cleared areas and on graded slopes (e.g., geotextiles, mats, fiber rolls, soil binders, temporary hydroseeding); sediment controls (e.g., temporary inlet filters, silt fences, fiber rolls, gravel bags, temporary sediment basins, check dams, street sweeping, energy dissipaters); and stabilized construction access points (e.g., temporary gravel or pavement) and sediment stockpiles (e.g., silt fences and tarps). Upon completion of construction activities, the Project site would be paved, similar to existing conditions, and would not result in the potential for substantial soil erosion or loss of topsoil. Impacts would be less than significant.

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?

Less Than Significant Impact. Refer to Item VII(a.iii-iv) for discussion of impacts related to liquefaction and landslides. The potential for subsidence and collapse are related to groundwater withdrawal and the presence of less stable materials, such as alluvium and topsoil. Although shallow groundwater and potentially unstable materials may be encountered during Project construction activities, conformance with applicable regulatory standards would result in less than significant impacts related to subsidence and collapse.

The Project would require excavation for the development of the proposed belowground components. Excavations typically involve vertical or near vertical walls and can exhibit instability and the potential for collapse because of loose or unstable soil and geologic materials. Potential excavation instability hazards would be addressed through required conformance with applicable U.S. Occupational Safety and Health Administration (OSHA) and California Occupational Safety and Health Administration (Cal-OSHA) requirements. These standards include criteria related to factors such as slope limitations and dimensions; use of appropriate shoring, shielding, and benching to provide stability; and restrictions on adjacent uses (e.g., heavy equipment use). Conformance with these regulatory standards would avoid or reduce potential impacts related to excavation stability to a less-than-significant level.

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?

Less Than Significant Impact. Expansive soils are attributable to the water holding capacity of clay materials. Such behavior can adversely affect structural integrity (including underground facilities) through shifting of support materials during the shrink-swell process. If expansive soils are present/

encountered during Project implementation, associated potential impacts would be addressed through conformance with regulatory/industry standards, including applicable elements of the “Greenbook” Standard Specifications for Public Work Construction, the CBC, and the IBC. Specifically, this may include efforts such as removal of expansive soils and replacement with engineered fill. Conformance with the described regulatory standards would reduce potential impacts related to expansive soils from Project implementation to a less-than-significant level.

- 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?

No Impact. The Project does not include septic tanks or alternative wastewater disposal systems, and no associated impacts would occur.

- f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant Impact. The Project site is underlain by Quaternary alluvium (SanGIS 2012), which is considered to have a “low” paleontological sensitivity due to its relatively young age and high-energy depositional history. Low resource sensitivity areas are unlikely to produce unique fossil remains (although important paleontological resources have occurred infrequently in local low sensitivity deposits); however, when fossils are found in low sensitivity formations, they are often very significant additions to the geologic understanding of the area (County 2007). The Project would involve excavation for the new lift station, which is estimated to require export of 1,500 CY of material. This excavation would have the potential to encounter and affect paleontological resources if present within the “low” paleontological sensitivity deposits underlying the Project site. The Project would voluntarily comply with Section 87.430 of the County of San Diego Grading Ordinance, which provides that the County official (e.g., grading permit compliance coordinator) may require a paleontological monitor during all or selected grading operations, to monitor for the presence of paleontological resources. If fossils greater than 12 inches in any dimension are encountered, then all grading operations in the area of discovery must be suspended immediately and not resumed until authorized by the County official. The Grading Ordinance also requires immediate notification of the County official regarding the discovery. The County official must determine the appropriate resource recovery operation, which the permittee must carry out prior to the County official’s authorization to resume normal grading operations. Through compliance with Section 87.430 of the County of San Diego Grading Ordinance, the Project’s impacts related to paleontological resources would be less than significant.

VIII. GREENHOUSE GAS EMISSIONS

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

Global climate change refers to changes in average climatic conditions, including temperature, wind patterns, precipitation, and storms. Global temperatures are moderated by naturally occurring atmospheric gases, including water vapor, carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), ozone, and certain hydro-fluorocarbons. These gases, known as greenhouse gases (GHGs), allow solar radiation (sunlight) into the Earth's atmosphere, but prevent radiative heat from escaping, thus warming the Earth's atmosphere. GHGs are emitted by both natural processes and human activities. The accumulation of GHGs in the atmosphere regulates the Earth's temperature. Emissions of GHGs in excess of natural ambient concentrations are thought to be responsible for the enhancement of the greenhouse effect and contributing to what is termed "global warming," the trend of warming of the Earth's climate from anthropogenic activities. Global climate change impacts are by nature cumulative, as direct impacts cannot be evaluated due to the fact that the impacts themselves are global rather than localized impacts.

California Health and Safety Code Section 38505(g) defines GHGs to include the following compounds: CO₂, CH₄, N₂O, ozone, chlorofluorocarbons (CFCs), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). As individual GHGs have varying heat-trapping properties and atmospheric lifetimes, GHG emissions are converted to carbon dioxide equivalent (CO₂e) units for comparison. The CO₂e is a consistent methodology for comparing GHG emissions because it normalizes various GHG emissions to a consistent measure.¹ The most common GHGs related to the Project are those primarily related to energy usage: CO₂, CH₄, and N₂O.

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

Less Than Significant Impact. There are no established federal, state, or local quantitative thresholds applicable to the Project to determine the quantity of GHG emissions that may have a significant effect on the environment. CARB, the California Air Pollution Control Officers Association (CAPCOA), and various cities and agencies have proposed, or adopted on an interim basis, thresholds of significance

¹ The effect each GHG has on climate change is measured as a combination of the volume of its emissions, and its global warming potential. The global warming potential is the potential of a gas or aerosol to trap heat in the atmosphere, and is expressed as a function of how much warming would be caused by the same mass of CO₂. For instance, CH₄ has a global warming potential of 21, meaning that 1 gram of CH₄ traps the same amount of heat as 21 grams of CO₂. N₂O has a global warming potential of 310.

that require the implementation of GHG emission reduction measures. For the proposed Project, the most appropriate screening threshold for determining GHG emissions is CAPCOA's 900 metric ton (MT) CO₂e screening threshold. The 900 MT CO₂e screening threshold was determined by CAPCOA as an emission level that would indicate a project's emissions would result in less than cumulatively significant impacts and would not interfere with the ability of the State to achieve State reduction targets. The 900 MT CO₂e per year screening threshold was developed by analyzing the capture of 90 percent or more of future discretionary development for residential and commercial land use developments. The 900 MT CO₂e screening threshold is intended to identify projects that would not interfere with implementation of Executive Order S-3-05, which aims to reduce GHG emissions to 1990 levels by 2020, and 80 percent below 1990 levels by 2050. The CAPCOA guidance indicates that projects that do not exceed the 900 MT CO₂e threshold would be consistent with State reduction targets identified in Assembly Bill (AB) 32. Under Senate Bill (SB) 32, the State has revised its commitment to also reduce its GHG emissions to 40 percent below 1990 by 2030. For projects that would be developed after 2020, the 900-MT goal is proportionally reduced, resulting in a threshold of 697 MT CO₂e for the Project's first full year of operations, which is anticipated to be 2025.

Construction Emissions

Project construction would generate GHG emissions associated with equipment operation and earth movement at the site, the transport of construction materials and equipment to the site, and worker vehicles traveling to and from the site. CO₂ from gasoline and diesel fuel combustion would be the primary GHG emission during the construction period. Generation of these emissions would be temporary.

Total GHG emissions from Project construction are presented in Table 4, *Total Estimated Construction GHG Emissions*. As shown in Table 4, the proposed construction activities are estimated to contribute a total of 355 MT of CO₂e. Amortized over 30 years, the proposed construction activities are estimated to contribute approximately 12 MT CO₂e per year.

Table 4
TOTAL ESTIMATED CONSTRUCTION GHG EMISSIONS

Phase	Emissions (MT CO ₂ e)
Site Preparation – 2023	1
Excavation – 2023	34
Material Hauling – 2023	6
Light Grading – 2023	1
Structure Construction – 2023	34
Structure Construction – 2024	240
Facilities Installation – 2024	28
Demolition – 2024	10
Paving – 2024	1
Total Construction Emissions	355
<i>Amortized Construction Emissions</i>	12

CalEEMod outputs provided in Appendix A.

MT = metric tons; CO₂e = carbon dioxide equivalent

Operational Emissions

The primary source of GHG emissions during Project operation would be energy use (electricity) to power the lift station pumps. The Project is anticipated to require 70 kilowatt-hours (kWh) of electricity per day. Energy-related emissions would also occur from testing of the diesel-powered backup generator and its use to power the lift station in the instance of electrical failure. An additional source of emissions would be from operational maintenance vehicle trips (anticipated to be one visit to and from the site per day).

Table 5, *Total Estimated Operational GHG Emissions*, presents the total GHG emissions by operational phase. With the amortized construction emissions, the Project would result in annual GHG emissions of 26 MT CO₂e, which would be below the applicable 697 MT CO₂e per year screening threshold. Further, this analysis conservatively does not account for GHG emissions that would be eliminated from demolishing the existing lift station. As such, impacts would be less than significant.

Table 5
TOTAL ESTIMATED OPERATIONAL GHG EMISSIONS

Source	Emissions (MT CO ₂ e)
Area	<0.5
Energy	6
Mobile	2
Stationary	5
Subtotal Operational Emissions	14
Amortized Construction Emissions	12
TOTAL OPERATIONAL EMISSIONS	26

CalEEMod outputs provided in Appendix A.

Note: Total may not sum due to rounding.

MT = metric tons; CO₂e = carbon dioxide equivalent

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

Less Than Significant Impact. There are numerous State plans, policies, and regulations adopted for the purpose of reducing GHG emissions. The principal overall State plan and policy is AB 32 (the California Global Warming Solutions Act of 2006) and SB 32 (Amendments to the California Global Warming Solutions Act of 2006). The quantitative goal of AB 32 was to reduce GHG emissions to 1990 levels by 2020. SB 32 requires further reductions of 40 percent below 1990 levels by 2030 and 80 percent below 1990 levels by 2050. These statewide plans and regulations are being implemented at the statewide level, and compliance on a project-specific level is not addressed. Further, a number of prominent statewide plans and regulations, as well as regional plans (e.g., SANDAG's San Diego Forward: The Regional Plan) aimed at reducing GHG emissions focus on reducing transportation source emissions. The proposed Project would generate minimal vehicle miles travels and would therefore not conflict with such policies and regulations.

In addition, as previously discussed, the increase in GHG emissions from implementation of the project would be less than the reduced CAPCOA significance threshold being applied to this analysis in accordance with SB 32 reduction targets.

As such, implementation of the proposed Project would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. Impacts would be less than significant.

IX. HAZARDS AND HAZARDOUS MATERIALS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
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"/>
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"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
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 type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant Impact. During Project construction, standard hazardous substances used to maintain and operate construction equipment, such as fuels, lubricants, adhesives, and solvents, would be present. The use of such construction-related hazardous materials could potentially result in significant impacts through accidental discharge; however, the transport, use, and disposal of hazardous materials would be temporary and would be conducted in accordance with applicable federal and state laws. In addition, Project construction would involve implementation of a safety plan by the contractor that would include BMPs to address the handling and discharge of contaminants (including construction-

related hazardous materials). Based on compliance with regulatory standards and implementation of appropriate BMPs, potential impacts associated with construction-related hazardous materials would be less than significant.

Operation of the Project would involve the on-site use and storage of diesel fuel for the lift station's backup generator. Such use and storage would be conducted in accordance with applicable federal, state, and local laws and regulations. Further, the on-site use and storage of diesel fuel would not represent a change from existing conditions. OWD has an existing Unified Program Facility Permit with the County for the current use and storage of diesel fuel at the site associated with the existing backup generator. OWD would modify the existing permit to accommodate the proposed Project. As such, potential impacts associated with operation-related hazardous materials would be less than significant.

- 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?

Less Than Significant Impact. As discussed above in Item IX(a), Project construction would require the use of standard construction-related hazardous materials, which could be at risk of release through upset and/or accident conditions. The potential for release would be minimized through implementation of a Cal-OSHA Construction Safety Plan and a hazard communication program during construction, as required under Section 5194 of the California Code of Regulations. The hazard communication program would include disclosure of the hazardous materials present on site, labels for hazardous materials containers, safety data sheets (with information on the health effects of hazardous materials), and employee training on hazardous materials handling. In the event of an accidental release of hazardous substances, the Project would comply with Code of Federal Regulations Section 1910.120, which outlines protocol for hazardous waste clean-up operations and emergency response. Through compliance with these regulations and procedures, the Project would not create a significant hazard to the public or the environment through reasonably foreseeable upset and/or accident conditions involving the release of hazardous materials during construction, and impacts would be less than significant.

Operation of the Project would involve the use and storage of diesel fuel for the backup generator, as discussed above in Item IX(a). The use and storage of diesel fuel would be conducted in accordance with applicable federal, state, and local laws and regulations and would not represent a change from existing conditions at the site. As such, impacts would be less than significant.

- c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are no schools within one-quarter mile of the Project site. The nearest school, Jamacha Elementary School, is located approximately 0.3 mile to the east of the Project site. Therefore, the Project would not emit hazardous emissions or handle acutely hazardous materials, substances, or waste within one-quarter mile of a school. Further, the Project's use of hazardous materials would be limited to standard materials for equipment maintenance and operation, such as fuels, lubricants, adhesives, and solvents. These materials would be handled in accordance with applicable laws and regulations and would not represent a substantial risk to uses in the vicinity of the Project. Impacts would be less than significant.

- 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?

No Impact. Pursuant to Government Code Section 65962.5 (Cortese List) requirements, the State Water Resources Control Board GeoTracker database (2021) and the California Department of Toxic Substances Control EnviroStor database (2021) were searched for hazardous materials sites in proximity to the Project site. The results of these searches indicated that neither the Project site nor nearby properties are included on a list of hazardous materials sites. The nearest listed site is located approximately 0.6 mile to the northwest and is a case associated with gasoline-contaminated soil at a gas station. The case was closed in 2011 and does not represent a risk at the Project site. As such, no impacts would occur.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project result in a safety hazard or excessive noise for people residing or working in the Project area?

No Impact. The closest airport to the Project site is Gillespie Field, located approximately 6 miles to the northwest. There are no public or private airports within two miles of the Project site; therefore, the Project would not result in a safety hazard or excessive noise for people or residing or working in the Project area. No impacts would occur.

- f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. Project implementation would occur within OWD's existing access road and lift station site and within adjacent decommissioned golf course land. The Project would not occur within or affect public roadways and would therefore not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. No impact would occur.

- g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less Than Significant with Mitigation Incorporated. According to mapping compiled by the California Department of Forestry and Fire Protection (CAL FIRE; 2020), the Project site is within an area mapped as a very high fire hazard severity zone. The Project, as a lift station, would not introduce permanent occupants to the site. Temporary construction workers and occasional operational maintenance workers would not be present for extended periods of time and would therefore not be at substantial risk from wildland fires; however, because the Project is within a very high fire hazard severity zone, risk from wildfire does exist, most notably during the Project's construction period when equipment with combustion engines would be present. As such, impacts are considered potentially significant, and the fire prevention strategies outlined below in mitigation measure MM-FIRE-1 would be implemented during Project construction.

Operation of the Project would generally not involve activities that would increase fire risk. Further, construction and operation of the lift station structure would occur in compliance with applicable portions of the County Fire Code, contained as Title 9, Division 6, Chapter 1 of the County of San Diego Code of Regulatory Ordinances. Such compliance, in addition to implementation of mitigation measure

MM-FIRE-1, would result in less-than-significant impacts as related to the exposure of people or structures to significant risk from wildland fires.

Mitigation

The following mitigation measure would be required to reduce potential impacts related to wildland fires to a less-than-significant level.

MM-FIRE-1 Construction Fire Safety Plan. The following fire prevention strategies shall be implemented during Project construction:

- Construction within areas of dense foliage during dry conditions shall be avoided, when feasible.
- In cases where avoidance is not feasible, brush fire prevention and management practices shall be incorporated. Specifics of the brush management program shall be incorporated into Project construction documents.

X. HYDROLOGY AND WATER QUALITY

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
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"/>
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 checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i. Result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional resources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv. Impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

	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"/>
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

- a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant Impact. Potential water quality impacts from the Project would be limited primarily to construction-related concerns, including erosion/sedimentation and the release of hazardous substances such as vehicle fuels and lubricants. Potential construction-related water quality impacts would be avoided or reduced below a level of significance through implementation of an erosion control plan and a safety control by the contractor during construction. The plans would include construction and post-construction BMPs to reduce potential effects to surface water quality due to storm water runoff pollution from the construction site. Such BMPs would include erosion control/stabilizing measures in cleared areas and on graded slopes (e.g., geotextiles, mats, fiber rolls, soil binders, temporary hydroseeding); sediment controls (e.g., temporary inlet filters, silt fences, fiber rolls, gravel bags, temporary sediment basins, check dams, street sweeping, energy dissipaters); and stabilized construction access points (e.g., temporary gravel or pavement) and sediment stockpiles (e.g., silt fences and tarps). Construction period impacts related to violation of water quality standards would therefore be less than significant.

Operation of the proposed lift station would not involve regular activities that would have the potential to violate water quality standards or waste discharge requirements.

Project implementation would not result in direct or indirect impacts to groundwater quality through activities such as underground storage of hazardous materials or discharge of contaminated runoff that could percolate into local aquifers. If dewatering is required during construction, the Project would be required to obtain a National Pollution Discharge Elimination System (NPDES) groundwater extraction and waste discharge permit and conform to requirements therein. Conformance with applicable requirements under the NPDES groundwater permit would ensure that associated regulatory standards are met and would reduce potential construction-related water quality impacts from groundwater extraction/disposal (if required) to less-than-significant levels.

- b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the Project may impede sustainable groundwater management of the basin?

Less Than Significant Impact. The Project would not require the direct use of groundwater supplies. While dewatering may be required if groundwater is encountered during construction, the volume of extracted groundwater would be negligible based on the size of the Project and required excavation and would not represent a substantial decrease in groundwater supplies. For construction-related dewatering, the Project would be required to obtain a NPDES groundwater extraction and waste discharge permit and conform to requirements therein. Conformance with applicable requirements

under the NPDES groundwater permit would ensure that associated regulatory standards are met. While the Project would increase the amount of impervious surface at the site, it would not be of an amount that would substantially interfere with groundwater recharge. Impacts would be less than significant.

c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:

i. Result in substantial erosion or siltation on- or off-site?

Less Than Significant Impact. The Project would not result in the alteration of the course of a stream or river. Potential erosion/siltation impacts would generally be limited to the Project's construction period and would be avoided or reduced below a level of significance through implementation of an erosion control plan. As discussed previously in Items VII(b) and X(a), the erosion control plan would include BMPs such as control/stabilizing measures in cleared areas and on graded slopes, sediment controls, and stabilized construction access points and sediment stockpiles to minimize the potential for erosion. Upon completion of construction activities, the Project site would be paved, similar to existing conditions, and would not result in the potential for substantial soil erosion or loss of topsoil. Impacts would be less than significant.

ii. Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off- site?

Less Than Significant Impact. The Project would not result in the alteration of the course of a stream or river. As previously discussed in Item X(a), the Project would implement stormwater BMPs to control stormwater runoff during construction. Although Project operations would involve more impervious surfaces than the existing condition, the associated increase in stormwater runoff would be negligible based on the size of the Project and would not result in flooding on or off site. As such, impacts would be less than significant.

iii. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant Impact. The Project would not result in the alteration of the course of a stream or river. As previously discussed in Item X(a), the Project would implement stormwater BMPs to control polluted stormwater runoff during construction. Operationally, although the Project would result in an increase in impervious surfaces over the existing condition, the associated increase in stormwater runoff would be negligible based on the size of the Project would and would not create or generate runoff water that would exceed the capacity of existing or planned stormwater drainage systems. As a result, potential impacts related to drainage system capacity and the generation of polluted runoff from Project implementation would be less than significant.

iv. Impede or redirect flood flows?

Less Than Significant Impact. The Project would not result in the alteration of the course of a stream or river. The Project would develop impervious surfaces and other aboveground components (lift station structure, generator, and storage tank) at the site that would have the potential to impede or redirect flood flows; however, the Project site is not located with a special flood hazard area designated by the

Federal Emergency Management Agency (FEMA; 2012) and therefore the Project components are not anticipated to impede or redirect flood flows. Impacts would be less than significant.

d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to Project inundation?

No Impact. As mentioned above in Item X(c.iv), the Project site is not located within a special flood hazard area designated by FEMA (2012). Based on the distance to the Pacific Ocean (14.9 miles) and the Sweetwater Reservoir (4.8 miles), there is no risk of tsunami or seiche at the Project site. Therefore, the Project would not risk release of pollutants to due inundation, and no impact would occur.

e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant Impact. Refer to Items X(a) through X(d). The Project would comply with applicable storm water quality standards during construction and operation, and appropriate BMPs would be implemented to address potential water quality impacts. Therefore, the Project would not conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan, and impacts would be less than significant.

XI. LAND USE AND PLANNING

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

a) Physically divide an established community?

No Impact. The Project involves the replacement of a lift station and associated infrastructure at the existing lift station site and adjacent property that would be acquired by OWD. The Project site, which is located between a private residential property and a decommissioned golf course, does not provide access or connectivity to other uses. As such, the Project would not physically divide an established community; no impact would occur.

b) Cause 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?

No Impact. The Project involves the replacement of a lift station and associated infrastructure at the existing lift station site that is within an OWD easement and adjacent property that would be acquired by OWD. The Project would expand the lift station site but would not introduce a new land use. Further, the site has a General Plan land use designation of Open Space (Recreation) and a zoning designation of

Specific Plan Area (S88), neither of which preclude utility infrastructure. The Project would therefore not conflict with land use or zoning designations, and no impact would occur.

As discussed above in Item IV(f), OWD is not a participating entity in any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan; therefore, no impacts would occur to any such plans.

XII. MINERAL RESOURCES

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

- 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?

Less Than Significant Impact. The Project site is in an area designated as Mineral Resource Zone (MRZ) 1 by the California Geological Survey (California Geological Survey 2017). MRZ-1 includes areas where available geologic information indicates that little likelihood exists for the presence of significant mineral resources. As such, the Project would not result in the loss of availability of a known mineral resource that would be of value to the region and residents of the state. Impacts would be less than significant.

- 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?

Less Than Significant Impact. As discussed above in Item XII(b), the Project site is in an area designated as MRZ-1 by the California Geological Survey (California Geological Survey 2017), which indicates that little likelihood exists for the presence of significant mineral resources. Further, the Project site has a zoning designation of Specific Plan Area (S88), which limits extractive uses to site preparation. The Project site is not planned for extractive uses and would therefore not 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. Impacts would be less than significant.

XIII. NOISE

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

The following discussion is based on the Noise Impact Analysis letter report prepared for the Project by HELIX (2021c) and included as Appendix D to this IS.

- a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the Project in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant with Mitigation Incorporated. The Project would generate noise during both its construction and operation that would have the potential to affect nearby noise sensitive land uses (NSLUs), which include single-family residential properties immediately east of the Project site. The following includes background information on noise terminology and metrics, a summary of applicable regulations, and analysis of potential construction and operation noise impacts.

Noise Terminology and Metrics

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ} , with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or atmospheric factors affecting the propagation path to the receiver contribute to the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is approximately 0 dBA, which corresponds to 20 micro Pascals (mPa).

Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

Regulatory Framework

Sections 36.401 through 36.423 of the County of San Diego Code of Regulatory Ordinances discuss further County noise requirements. The purpose of the Noise Ordinance is to regulate noise in the unincorporated area of the County to promote the public health, comfort, and convenience of the County's inhabitants and its visitors.

Section 36.404 sets limits pertaining to the generation of exterior noise and is based on the zoning of the property receiving the noise. Properties to the east are zoned A-70 and include single-family residential uses. The applicable noise level limits are 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. or 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. Properties to the north and west are zoned S-88. According to Section 36.404(c) of the County of San Diego Noise Ordinance, the applicable property line noise limits for the S88 zone depends on the use being made of the property. The property to the north and west of the Project site currently includes a decommissioned golf course; however, it has a land use designation of Open Space (Recreation) and will likely be used as such in the future. The noise limits for open space (S-80) are 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. Therefore, for this analysis, noise levels limits of 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. are used at the Project's eastern, northern, and western property lines. The southern Project site property line (at the base of the access road) is located away from where the noise-generating equipment would be and is therefore not considered herein.

Section 36.408 states that it is unlawful for any person to operate or cause to be operated construction equipment between the hours of 7:00 p.m. and 7:00 a.m. or on a Sunday or holiday. Section 36.409

limits construction noise to a level of 75 dBA L_{EQ} (8-hour) as measured at the boundary line of the property where the noise source is located or on any occupied property where noise is being received, when equipment is operated between 7:00 a.m. and 7:00 p.m.

Construction Noise Impacts

On-site Construction Activities

The Project's expected on-site construction activities can be grouped into three main components: (1) access road improvements; (2) construction of the new lift station; and (3) demolition of the existing lift station structures. Construction would generate elevated noise levels that could be audible to the residential NSLUs to the east of the Project site. The magnitude of the impact would depend on the type of construction activity, equipment used, duration of each construction phase, distance between the noise source and receiver(s), and any intervening structures. Construction equipment would not all operate at the same time or location. Furthermore, construction equipment would not be in constant use during the 8-hour operating day.

Access Road Improvements

Work for the access road improvements would involve site preparation (vegetation clearing), light grading, and paving, and would occur at an approximate average distance of 30 feet from the residential property line to the east. Site preparation and light grading are anticipated to be accomplished using a single skid steer. Paving would be accomplished using a roller and a paver, which would be used consecutively, not simultaneously, and would therefore not combine to generate elevated noise levels. At 30 feet, a skid steer is estimated to generate a noise level of 75.5 dBA L_{EQ} , a roller 77.4 dBA L_{EQ} , and a paver 78.6 dBA L_{EQ} , all of which exceed the 75-dBA L_{EQ} limit; however, this is assuming that the equipment is operating at a stationary location and generating maximum noise levels at a single receptor location located 30 feet away. In actuality, these pieces of equipment would be mobile along the length of the approximately 270-foot-long access road and would not remain within 30 feet of a given receptor location over the course of a workday. As such, noise levels at a given receptor location from construction work along the access road are expected to be below the 75-dBA limit over the course of an 8-hour workday.

Lift Station Construction

Construction of the new lift station site would involve site preparation (vegetation clearing), excavation for the below-grade wet well and dry well, light grading, construction of the lift station structure and site area pad, installation and connection of facilities, and paving. Work for the lift station site construction would occur throughout the lift station site area (i.e., the portion of the Project site excluding the access road); therefore, for noise analysis purposes, construction equipment is modeled to be located at the center of the lift station site area, at an approximate distance of 50 feet from the closest residential property line to the east. This distance represents the assumed average distance to the property line that construction equipment would be operating at over the course of an 8-hour workday. The loudest combination of pieces of equipment anticipated to be used simultaneously for each of these construction activities and the resultant noise levels at 50 feet are shown in Table 6, *Lift Station Construction Noise Levels*.

Table 6
LIFT STATION CONSTRUCTION NOISE LEVELS

Activity	Simultaneous Equipment	Noise Level at 50 feet (dBA L_{EQ})	Exceed 75 dBA Limit?
Site Preparation	Skid steer	71.0	No
Excavation	Excavator and dump truck	78.1	Yes
	Backhoe and dump truck	76.1	Yes
Light Grading	Skid steer	71.0	No
Structure Construction	Concrete pump truck and concrete mixer truck	77.6	Yes
	Backhoe and dump truck	76.1	Yes
Structure Construction	Crane and delivery truck	75.6	Yes
	Crane and welder	74.5	No
Facilities Installation	Crane and welder	74.5	No
Paving	Roller	73.0	No
	Paver	74.2	No

Source: RCNM (USDOT 2008)

As shown in Table 6, excavation and structure construction are estimated to result in noise levels in excess of the 75-dBA L_{EQ} limit; therefore, the Project's temporary construction noise impacts are considered potentially significant. Mitigation measure MM-NOI-1, provided below, would be required to reduce impacts to a less-than-significant level.

Existing Lift Station Demolition

Demolition of the existing concrete block lift station structure would be required and would occur at an approximate average distance of 30 feet from the residential property line to the east. Initial demolition is expected to be accomplished using either a concrete saw or a breaker. At 30 feet, a concrete saw is estimated to generate a noise level of 87.0 dBA L_{EQ} and a breaker is estimated to generate a noise level of 87.7 dBA L_{EQ}. Excavated materials would then likely be loaded into a dump truck using a loader. A loader and dump truck operating simultaneously are estimated to generate a combined noise level of 81.5 dBA L_{EQ} at 30 feet. These demolition activities have the potential to result in noise levels in excess of the 75-dBA L_{EQ} limit; therefore, the Project's temporary construction noise impacts are considered potentially significant. Mitigation measure MM-NOI-1 would be required to reduce impacts to a less-than-significant level.

Off-site Construction Activities

The Project would result in approximately 1,500 CY of excavated material that would either be taken by the adjacent golf course or taken to an off-site disposal location. If taken off site, the export of material would be accomplished via approximately 100 haul trucks, assuming a single truck hauls 15 CY of material. Each haul truck would make one trip to the Project site to pick up the material and another trip from the Project site to transport the material, resulting in a total of 200 haul truck trips. These trips are anticipated to occur over the course of 10 workdays, for a total of 20 haul truck trips per day, or 2.5 trips per hour over the course of an 8-hour workday. The haul trucks would generate noise that may be audible to residential NSLUs along Par 4 Drive.

TNM software was used to calculate noise levels at residences from the haul trucks traveling along Par 4 Drive. For modeling purposes, 3 trucks per hour was assumed (rounded up from the 2.5 trucks per hour

discussed above). The closest residential exterior use areas are located approximately 30 feet from the center of Par 4 Drive. At a distance of 30 feet, 3 trucks per hour traveling at a speed of 25 miles per hour would generate a noise level of 52.6 dBA L_{EQ} . This would be well below the 75-dBA L_{EQ} limit for construction noise, and associated impacts would be less than significant.

Operational Noise Impacts

Operation of the proposed lift station would include equipment that would generate elevated noise levels. The two primary operational noise-generating components of the Project would be (1) the lift station pump motors and ventilation system, and (2) the diesel backup generator. Design plans are not available at this stage in the planning process to provide specific equipment location information or equipment noise data; therefore, assumptions based on typical lift station design and standard lift station equipment are used herein for this analysis.

The two 40-HP pump motors would be located within the lift station structure and are expected to generate interior noise levels ranging from 75 to 90 dBA. The structure would include a vent for air ventilation, and the pump motor noise would transfer from the interior to the exterior of the structure through the vent. Additional noise would occur from the ventilation fan near the vent opening. While dependent on the specific type of equipment and size of the vent, exterior noise levels are expected to be up to approximately 80 dBA at 10 feet for standard equipment of this size. Based on this noise level, the vent noise levels could be above 50 dBA within 300 feet and above 45 dBA within 550 feet. Since the Project's lift station vent would be located within these distances to the property line(s), noise levels would have the potential to exceed the applicable 50-dBA L_{EQ} daytime and 45-dBA L_{EQ} nighttime limits. Mitigation measure MM-NOI-2 would be required to reduce impacts to a less-than-significant level.

The Project would include a backup generator that would be used to power the lift station in the instance of normal power failure and would be tested regularly during daytime hours. A standard generator of the size anticipated to be required for the Project is estimated to generate a noise level of approximately 75 dBA at 23 feet. Based on this noise level, the generator noise levels could be above 50 dBA within 400 feet. Since the Project's generator would be located within this distance to the property line(s), noise levels would have the potential to exceed the applicable 50-dBA L_{EQ} daytime limit during regular generator testing. Mitigation measure MM-NOI-3 would be required to reduce impacts to a less-than-significant level.

Mitigation

The following mitigation measures are required to reduce potential construction and operation noise impacts to a less-than-significant level.

MM-NOI-1 Construction Noise Management Plan. Noise from Project construction activities shall comply with the limits and hours specified in the County of San Diego Noise Ordinance. Construction shall not occur outside the hours of 7:00 a.m. and 7:00 p.m. Construction noise shall not exceed 75 dBA L_{EQ} (8-hour) at nearby residential land uses.

Appropriate measures shall be implemented to reduce construction noise, including, but not limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.

- Diesel equipment shall be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No Project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Any truck or equipment equipped with back-up alarm moving within 300 feet of a NSLU should have the normal back-up alarm disengaged and safety provided by lights and flagman or broad-spectrum noise backup alarm (as appropriate for conditions) used in compliance with the Occupational Safety and Health Administration safety guidelines.
- Temporary sound barriers or sound blankets shall be installed between construction operations and adjacent NSLUs. The Project Contractor shall construct a temporary noise barrier of a height breaking the line of sight between the equipment and nearby receptors and meeting the specifications listed below (or of a Sound Transmission Class [STC] 19 rating or better) to attenuate noise.
- If a temporary barrier is used, all barriers shall be solid and constructed of wood, plastic, fiberglass, steel, masonry, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove or close butted seams and must be at least 3/4-inch thick or have a surface density of at least 3.5 pounds per square-foot. Sheet metal of 18-gauge (minimum) may be used if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Noise blankets, hoods, or covers also may be used, provided they are appropriately implemented to provide the required sound attenuation.
- Residents within 200 feet of the Project’s disturbance area shall be notified in writing within one week of any construction activity. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure.

- The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established prior to construction commencement to allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

MM-NOI-2 Lift Station Operation Noise Attenuation. Noise generated by operation of the lift station pumps and ventilation system shall comply with the 50-dBA limit during the hours of 7:00 a.m. to 10:00 p.m. and the 45-dBA limit during the hours of 10:00 p.m. to 7:00 a.m. at the Project site's eastern, western, and northern property lines. To adequately reduce noise levels, noise attenuating equipment and/or acoustical shielding shall be incorporated into Project design. Such features may include, but not be limited to, acoustical louvers, in-line silencers, and/or noise walls. Prior to building plan approval, planning for the lift station noise sources shall be required to show noise compliance with the 50-dBA daytime limit and 45-dBA nighttime limit at the property lines. A final operational test shall be required with the pumps and ventilation system in operation to ensure noise levels are below the required standards.

MM-NOI-3 Generator Noise Attenuation. Noise generated by the generator during regular testing shall comply with the 50-dBA limit at the Project site's eastern, western, and northern property lines. To adequately reduce noise levels, noise attenuating equipment and/or acoustical shielding shall be incorporated into Project design. Such features may include, but not be limited to, noise walls, noise control enclosures, and/or noise absorbing paneling. Prior to building plan approval, planning for the generator shall be required to show noise compliance with the 50-dBA daytime limit at the property lines. A final operational test shall be required with the generator in operation to ensure noise levels are below the required standards.

Implementation of mitigation measures MM-NOI-1, MM-NOI-2, and MM-NOI-3 would allow the Project's construction and operation noise levels to not exceed thresholds. Impacts would be less than significant with these mitigation measures.

b) Generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. A likely source of vibration during Project construction would be a vibratory roller, which would be used for soil compaction for the Project's expanded access road and lift station area pad. A standard vibratory roller creates approximately 0.210 inch per second peak particle velocity (PPV) at a distance of 25 feet (Caltrans 2020). Based on this metric, use of a vibratory roller within 50 feet would have the potential to exceed the "strongly perceptible" vibration annoyance potential criteria for human receptors of 0.1 inch per second PPV,² as specified by Caltrans in its *Transportation and Construction Vibration Guidance Manual* (2020). There is potential for use of a vibratory roller to be required within 50 feet of off-site residences for development of the Project's expanded access road, which could result in an exceedance of the "strongly perceptible" vibration annoyance potential criteria for the residence immediately east of the Project's access road. However, exposure of this adjacent off-site residences to vibration would be limited to very short durations. A vibratory roller moves at a speed of approximately two miles per hour, which equates to 176 feet per

² Equipment PPV = Reference PPV * (25/D)ⁿ(in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receptor in feet, and n = 1.1 (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

minute. As the residence adjacent to the access road is approximately 125 feet long, a vibratory roller would be adjacent to the residence for approximately 43 seconds during a single pass, which would not result in excessive or substantial exposure. Further, use of a vibratory roller for the access road would be temporary. Temporary use of the vibratory roller at the lift station site would occur at distances greater than 50 feet from the residence and would not result in excessive vibration. Other equipment used during Project construction is expected to generate less ground-borne vibration than a vibratory roller. As such, the Project's temporary construction vibration impacts would be less than significant.

The Project's operations would not include components that would have the potential to generate perceptible vibration at adjacent properties; therefore, no operational vibration impacts are identified.

- 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?

No Impact. The closest airport to the Project site is Gillespie Field, located approximately 6 miles to the northwest. There are no public or private airports within two miles of the Project site; therefore, the Proposed Project would not expose people residing or working to excessive aircraft noise, and no impacts would occur.

XIV. POPULATION AND HOUSING

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

- 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)?

Less Than Significant Impact. The Project involves the replacement of an existing lift station. While the new lift station would have an increased capacity over the existing lift station, the increase in capacity is to serve the local needs of existing and planned residential developments in the vicinity. The Project itself would not induce growth; therefore, impacts would be less than significant.

- b) Displace substantial numbers of existing people or housing, necessitating the construction of 'replacement housing elsewhere?

No Impact. The Project involves the replacement of a lift station on the site of the existing lift station and adjacent property that would be acquired by OWD. The property to be acquired is part of a decommissioned golf course and does not include existing housing. As such, implementation of the Project would not displace existing people or housing, and no impacts would occur.

XV. PUBLIC SERVICES

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

- a) Fire protection?

Less Than Significant Impact. Fire protection services may be required during construction and/or operation of the Project in the instance of an accidental fire event, which could occur, for example, in association with off-road construction equipment or mechanical equipment at the lift station; however, the probability of such an event is low and potential fire protection requirements would be short-term and would not affect response times of local fire protection services. As such, potential impacts to fire protection services would be less than significant.

- b) Police protection?

Less Than Significant Impact. Police protection services may be required during construction and/or operation of the Project in the instance of a crime event, which could occur, for example, in association with trespassing, vandalism, and/or theft; however, the probability of such an event is low and potential police protection requirements would be short-term and would not affect response times of local police protection services. As such, potential impacts to police protection services would be less than significant.

c) Schools?

No Impact. The proposed Project would not result in new housing or population growth that would generate increased demand for school services. Project implementation would therefore not result in the need to construct additional school facilities and no associated impacts would occur.

d) Parks?

No Impact. The proposed Project would not result in new housing or population growth that would generate increased demand for parks. Project implementation would therefore not result in the need to construct additional park facilities and no associated impacts would occur.

e) Other public facilities?

No Impact. The proposed Project would not result in new housing or population growth that would generate increased demand for other types of public facilities. Project implementation would therefore not result in the need to construct additional public facilities and no associated impacts would occur.

XVI. RECREATION

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

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?

No Impact. The proposed Project involves the reconstruction of a lift station, which would not generate an increase in demand for existing parks or other recreational facilities. As such, implementation of the Project would not result in or increase physical deterioration of such facilities, and no impacts would occur.

b) Does the Project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact. As a lift station replacement, the proposed Project would not include recreational facilities or require the construction or expansion of recreational facilities. No associated impacts would occur.

XVII. TRANSPORTATION

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

- a) Conflict with a program plan, ordinance or policy addressing the circulation system, including transit, roadway, bicycle and pedestrian facilities?

Less Than Significant Impact. Project construction would result in a temporary increase in vehicular traffic associated with construction worker commute vehicles, construction equipment and material delivery vehicles, and soil export haul trucks. Based on the relatively small size of the Project, the number of daily vehicle trips would be minimal and would not substantially affect traffic circulation along existing roadways, including Par 4 Drive and Steele Canyon Road. While the Project may require construction vehicle parking near the western terminus of Par 4 Drive, this roadway does not provide through access that could be disrupted. Access to private residential driveways would be maintained. Further, there are no transit, bicycle, or pedestrian facilities along Par 4 Drive that could be affected. Following the completion of construction, Project-generated traffic would be limited to routine maintenance activities, similar to the existing condition. As such, impacts would be less than significant.

- b) Would the Project conflict or be inconsistent with CEQA Guidelines section 15064.3, subdivision (b)?

Less Than Significant Impact. CEQA Guidelines Section 15064.3 subdivision (b) sets forth specific criteria for determining the significance of transportation impacts. Subdivision (b) pertains to land use projects and describes factors that may indicate whether the amount of a land use project's vehicle miles traveled may be significant or not. As discussed above in Item XVII(a), Project-related trip generation would be limited to a relatively small number of trips during the temporary construction period and occasional trips for maintenance purposes during operations. The Project does not propose a land use that would generate substantial vehicle miles traveled, and it would therefore not conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b); impacts would be less than significant.

- c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

No Impact. The Project would be implemented along an existing private access road, at the existing lift station site, and on adjacent property within a decommissioned golf course. No work would occur within a public roadway. Based on its location, design, and use, the Project would not increase hazards due to a geometric design feature or incompatible use; no impacts would occur.

- d) Result in inadequate emergency access?

No Impact. As discussed above in Item XVII(c), the Project would be implemented along an existing private access road, at the existing lift station site, and on adjacent property within a decommissioned golf course. The Project site does not provide emergency access. While construction vehicle parking may be required along Par 4 Drive, access to residential driveways would be maintained. The Project would therefore not result in inadequate emergency access and no impacts would occur.

XVIII. TRIBAL CULTURAL RESOURCES

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

- 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)?

No Impact. As discussed in Item V(a), one previously recorded resource, the Cottonwood Golf Club, overlaps the Project site. This resource was documented and evaluated as part of a different project and was found to be not eligible for the CRHR or San Diego County Local Register of Historic Resources (Reinicke and Mengers 2020). No tribal cultural resources were identified within or adjacent to the Project site during the records search, pedestrian survey, or tribal outreach that was conducted in March 2021. Therefore, no substantial adverse changes to the significance of tribal cultural resources listed or eligible for listing in the CRHR or local register of historical resources are anticipated as a result of Project implementation; no impacts would occur.

- 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?

Less Than Significant with Mitigation Incorporated. As discussed in Item V(b), no archaeological resources have been recorded or are known to exist within the Project site or a half-mile radius and no resources were observed during the site visit. However, during the site visit, the Native American monitor stated that due of the sensitivity of the region surrounding the Sweetwater River, and because the existing lift station and sewer line may not have been monitored at the time of construction, that the Jamul Indian Village requests cultural resource monitoring to be performed during ground-disturbance activities. In addition, the NAHC indicated that the results of the Sacred Lands File search conducted for the Project were positive and that the Ewiiapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians should be contacted for more information. A list of tribal contacts from whom additional information can be solicited was provided with the NAHC's response—letters were sent to these contacts on March 23, 2021. To date, one response has been received: the Viejas Band of Kumeyaay Indians stated that the area containing the Project site has cultural significance or ties to Viejas. Viejas requested that a Kumeyaay Native American monitor be on site for ground-disturbing activities and to be informed of any discoveries found during construction. Therefore, though not anticipated, the Project could cause a substantial adverse change in the significance of unknown tribal cultural resources during ground-disturbing activities, and impacts are considered potentially significant. Mitigation measure MM-CUL-1, included above in Item V(b), would be required.

Mitigation

Mitigation measure MM-CUL-1 would be required to reduce potential impacts to tribal cultural resources to a less-than-significant level.

XIX. UTILITIES AND SERVICE SYSTEMS

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
Would the Project:				
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"/>
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"/>
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"/>
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"/>
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"/>

- 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?

Less Than Significant Impact. The Project involves the construction of a sewer lift station and associated infrastructure. The environmental impacts of implementation of the Project are analyzed throughout this IS. Because the Project would replace an existing lift station at the same general site location, the Project would not require the relocation or construction of additional water, wastewater treatment or stormwater drainage, electric power, natural gas, or telecommunications facilities that could cause significant off-site adverse effects. Impacts would be less than significant.

- b) Have sufficient water supplies available to serve the Project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant Impact. While operation of the Project as a sewer lift station would involve the conveyance of wastewater, it would not involve the regular use of water. The Project's water requirements would be limited to short-term construction-related uses such as dust suppression. Based on the minor extent of such uses, Project water requirements would be met through existing entitlement, and impacts would be less than significant.

- 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?

No Impact. The Project involves the replacement of a lift station and would continue to convey wastewater flows. The Project itself would not generate wastewater; therefore, the Project would not affect wastewater treatment capacity and no impacts would occur.

- 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?

Less Than Significant Impact. Solid waste generation during Project construction would be short-term and minimal. Construction debris (e.g., asphalt, material packaging) would be recycled, as feasible. Excavated soil would either be taken by the adjacent golf course and/or hauled from the site and disposed of at located approved for such use. Operation of the lift station would not generate solid waste or affect landfill capacities. As such, impacts would be less than significant.

- e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

No Impact. Construction and operation of the Project would generate minimal solid waste and would not affect landfill capacity. The Project would comply with applicable federal, state, and local statutes and regulations related to solid waste. As such, no impact would occur.

XX. WILDFIRE

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

As discussed in Item IX(g), the Project site is within an area mapped as a very high fire hazard severity zone by CAL FIRE (2020).

- a) Substantially impair an adopted emergency response plan or emergency evacuation plan?

No Impact. Project implementation would occur within OWD's existing access road and lift station site and within adjacent decommissioned golf course land. The Project would not occur within or affect public roadways and would therefore not impair an adopted emergency response plan or emergency evacuation plan. No impact would occur.

- 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?

Less Than Significant with Mitigation Incorporated. As discussed in Item IX(g), the Project, as a lift station, would not introduce permanent occupants to the site. Temporary construction workers and occasional operational maintenance workers would not be present for extended periods of time and would therefore not be at substantial risk from pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire; however, because the Project is within a very high fire hazard severity zone, risk from wildfire does exist, most notably during the Project's construction period when equipment with combustion engines would be present. As such, impacts are considered potentially significant. Mitigation measure MM-FIRE-1 would be implemented during Project construction, which would result in less than significant impacts.

Mitigation

Mitigation measure MM-FIRE-1 would be required to reduce potential impacts related to wildfire to a less-than-significant level.

- 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?

Less Than Significant Impact. The Project involves the replacement of a lift station and associated infrastructure, including an access road. Similar to the existing condition, the access road would be used for occasional maintenance vehicle trips, which would not exacerbate fire risk. The temporary and ongoing impacts to the environment from implementation of the Project are analyzed throughout this IS. Impacts would be less than significant.

- 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?

Less Than Significant Impact. The Project site is not located in an area of high risk of landslides or flooding (refer to Items VII[a.iv] and X[b], respectively); therefore, the Project is not anticipated to expose people or structures to significant risks as a result of runoff, post-fire slope instability, or drainage changes. Impacts would be less than significant.

XXI. MANDATORY FINDINGS OF SIGNIFICANCE

	Potentially Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the Project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- a) Does the Project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

Less Than Significant with Mitigation Incorporated. As discussed in Item IV(a), one special-status plant species (San Diego ambrosia), two special-status animal species (Cooper's hawk and coastal California gnatcatcher), and bird/raptors protected under the MBTA have the potential to be directly and/or indirectly affected during construction of the proposed Project. Potential impacts to San Diego ambrosia would be reduced to a less-than-significant level through implementation of avoidance measures required as part of mitigation measure MM-BIO-1. Potential indirect noise-related impacts to coastal California gnatcatcher would be reduced to a less-than-significant level through a pre-construction survey and restrictions on vegetation clearing and noise generation during the breeding season, as required per mitigation measure MM-BIO-2. Similarly, potential impacts to Cooper's hawk and other birds/raptors protected under the MBTA would be reduced to a less-than-significant level through restrictions on vegetation clearing during the general avian breeding season and pre-construction surveys, as specified in mitigation measure MM-BIO-3. No sensitive vegetation communities, habitat types, or jurisdictional features occur within the Project footprint. The Project site does not serve as a wildlife corridor; therefore, the Project would not affect wildlife movement or nursery sites.

As discussed in Item V(a), the Project would not result in a substantial adverse change in the significance of a historical resources and would therefore not eliminate important examples of the major periods of

California history. Based on the cultural sensitivity of the area, the Project is considered to have the potential to encounter and disturb unknown archaeological resource, tribal cultural resources, and human remains during ground-disturbing activities, which could result in effects to examples of major periods of California prehistory. However, the Project would implement mitigation measures MM-CUL-1 and MM-CUL-2 to avoid such impacts through monitoring.

As such, with the inclusion of mitigation, the Project does not 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.

Mitigation

Mitigation measures MM-BIO-1, MM-BIO-2, MM-BIO-3, MM-CUL-1, and MM-CUL-2 would be required to reduce impacts to biological resources, cultural resources, and tribal cultural resources to less-than-significant levels.

- b) Does the Project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of past, present and probable future projects)?

Less Than Significant Impact. Cumulative impacts are defined as two or more individual project effects that, when considered together or in concert with other projects, combine to result in a significant impact (CEQA Guidelines Section 15355). One project, the Cottonwood Sand Mine Project (State Clearinghouse No. 2019100513), is proposed adjacent to the Project. The project area for the Cottonwood Sand Mine Project would occur approximately 300 feet from Project site at its closest point; however, most of the activity associated with the Cottonwood Sand Mine Project would occur at distances much greater than 300 feet based on the large size of the site. While in proximity, the proposed lift station replacement Project, which is primarily limited to short-term and localized construction-related effects, would not result in impacts that are cumulatively considerable. No significant air pollutant or GHG emissions would occur, no sensitive habitat would be removed, impacts to known buried cultural resources would be avoided through construction monitoring, and noise effects would be limited through implementation of noise abatement measures. Impacts would be less than significant.

- c) Does the Project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated. Adherence to regulatory codes, ordinances, regulations, standards, and guidelines would limit the potential for substantial adverse effects on human beings during Project construction and operation. Mitigation measure MM-FIRE-1 would minimize risks to Project construction and operational workers related to fire events at the Project site. Similarly, mitigation measures MM-NOI-1, MM-NOI-2, and MM-NOI-3 would reduce potential impacts to nearby residents related to Project-generated noise to less-than-significant levels. In addition, all resource topics associated with the Project have been analyzed in accordance with State CEQA Guidelines and found to pose no impact, less than significant impact, or less than significant impact with mitigation. Further environmental analysis is not required. Impacts would be less than significant.

Mitigation

Mitigation measures MM-FIRE-1, MM-NOI-1, MM-NOI-2, and MM-NOI-3 would be required to reduce impacts related to fire risk and noise generation to less-than-significant levels.

3.0 PREPARERS

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Initial Study Appendix A

Air Quality Modeling Outputs

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cottonwood Sewer Lift Station Replacement****San Diego County, Winter****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.37	16,117.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined Industrial Used for Lift Station. Project site area = 0.37 acre (16,117 SF).

Construction Phase - Construction phasing information provided by Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant; off-highway truck = dump truck.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Off-site (on-road) trucks only for material export.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant; off-highway trucks = 1 concrete pump truck, 1 concrete mixer truck, 1 dump truck.

Off-road Equipment - Construction equipment per Project Applicant; off-highway truck = dump truck.

Off-road Equipment - Construction equipment per Project Applicant.

Grading - Model-calculated changes to total acres graded.

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolition of existing lift station structure; estimated to have an area of 180 SF based on Google Earth imagery.

Trips and VMT - 1,500 CY of material to be exported via 200 haul truck trips over 10 days.

Vehicle Trips - One maintenance visit (2 one-way trips) per day per Project Applicant.

Area Coating - No architectural coatings.

Energy Use - 70 kWh per day per Project Applicant.

Stationary Sources - Emergency Generators and Fire Pumps - Backup generator. Size based on two 40 hp pumps and this source:
<<https://franklinwater.com/more/service/aim-manual/motor-application/all-motors/page-5/>>

Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	8059	0
tblAreaCoating	Area_Nonresidential_Interior	24176	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	120.00
tblConstructionPhase	NumDays	2.00	35.00
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	100.00	70.00
tblConstructionPhase	PhaseEndDate	2/28/2024	5/24/2024
tblConstructionPhase	PhaseEndDate	10/11/2023	11/24/2023
tblConstructionPhase	PhaseEndDate	3/6/2024	9/20/2024
tblConstructionPhase	PhaseEndDate	10/9/2023	10/6/2023
tblConstructionPhase	PhaseStartDate	10/12/2023	12/11/2023
tblConstructionPhase	PhaseStartDate	10/10/2023	10/9/2023
tblConstructionPhase	PhaseStartDate	2/29/2024	9/16/2024
tblConstructionPhase	PhaseStartDate	10/7/2023	9/25/2023
tblEnergyUse	T24E	0.00	1.59
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	0.00	0.50

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	AcresOfGrading	0.00	7.50
tblGrading	MaterialExported	0.00	1,500.00
tblLandUse	LandUseSquareFeet	0.00	16,117.00
tblLandUse	LotAcreage	0.00	0.37
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Welders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	270.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	188.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	200.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	0.00	2.00

2.0 Emissions Summary

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction (Maximum Daily Emission)****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.2958	18.3171	16.7348	0.0515	0.8200	0.8154	0.8933	0.1191	0.7502	0.7713	0.0000	4,995.2587	4,995.2587	1.5817	0.2121	5,038.0813
2024	2.2436	17.2169	16.5785	0.0515	0.0854	0.7597	0.8375	0.0211	0.6989	0.7200	0.0000	4,994.4100	4,994.4100	1.5821	0.0108	5,037.1656
Maximum	2.2958	18.3171	16.7348	0.0515	0.8200	0.8154	0.8933	0.1191	0.7502	0.7713	0.0000	4,995.2587	4,995.2587	1.5821	0.2121	5,038.0813

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	lb/day										lb/day					
2023	2.2958	18.3171	16.7348	0.0515	0.4387	0.8154	0.8933	0.1159	0.7502	0.7713	0.0000	4,995.2587	4,995.2587	1.5817	0.2121	5,038.0813
2024	2.2436	17.2169	16.5785	0.0515	0.0778	0.7597	0.8375	0.0211	0.6989	0.7200	0.0000	4,994.4100	4,994.4100	1.5821	0.0108	5,037.1656
Maximum	2.2958	18.3171	16.7348	0.0515	0.4387	0.8154	0.8933	0.1159	0.7502	0.7713	0.0000	4,995.2587	4,995.2587	1.5821	0.2121	5,038.0813

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	42.96	0.00	0.00	2.28	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

2.2 Overall Operational**Unmitigated Operational**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.5200e-003	7.9000e-003	0.0648	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9800e-003		14.0148	14.0148	9.7000e-004	6.2000e-004	14.2247
Stationary	0.1108	0.3096	0.2825	5.3000e-004		0.0163	0.0163		0.0163	0.0163		56.6672	56.6672	7.9400e-003		56.8658
Total	0.4622	0.3175	0.3474	6.7000e-004	0.0146	0.0164	0.0310	3.8800e-003	0.0164	0.0203		70.6822	70.6822	8.9100e-003	6.2000e-004	71.0907

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Area	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Mobile	6.5200e-003	7.9000e-003	0.0648	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9800e-003		14.0148	14.0148	9.7000e-004	6.2000e-004	14.2247
Stationary	0.1108	0.3096	0.2825	5.3000e-004		0.0163	0.0163		0.0163	0.0163		56.6672	56.6672	7.9400e-003		56.8658
Total	0.4622	0.3175	0.3474	6.7000e-004	0.0146	0.0164	0.0310	3.8800e-003	0.0164	0.0203		70.6822	70.6822	8.9100e-003	6.2000e-004	71.0907

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/25/2023	10/6/2023	5	10	
2	Excavation	Grading	10/9/2023	11/24/2023	5	35	
3	Building Construction	Building Construction	12/11/2023	5/24/2024	5	120	
4	Paving	Paving	9/16/2024	9/20/2024	5	5	

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

5	Excavated Material Hauling	Trenching	11/13/2023	11/24/2023	5	10
6	Light Grading	Grading	11/27/2023	12/8/2023	5	10
7	Demolition	Demolition	9/2/2024	9/13/2024	5	10
8	Facilities Installation	Building Construction	5/27/2024	8/30/2024	5	70

Acres of Grading (Site Preparation Phase): 0.5**Acres of Grading (Grading Phase): 1.5****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Facilities Installation	Cranes	1	4.00	231	0.29
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Excavation	Graders	0	6.00	187	0.41
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Excavation	Rubber Tired Dozers	0	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Excavation	Tractors/Loaders/Backhoes	1	7.00	97	0.37
Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Facilities Installation	Forklifts	1	6.00	89	0.20
Light Grading	Graders	0	6.00	187	0.41
Light Grading	Rubber Tired Dozers	0	6.00	247	0.40
Facilities Installation	Welders	1	8.00	97	0.37
Light Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Demolition	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Excavation	Excavators	1	8.00	158	0.38
Excavation	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Off-Highway Trucks	3	8.00	402	0.38
Light Grading	Skid Steer Loaders	1	8.00	65	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	7.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavated Material Hauling	0		0.00	200.00	10.80	7.30	20.00			HHDT
Light Grading	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Facilities Installation	3	7.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

Water Exposed Area

Water Unpaved Roads

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0530	0.0000	0.0530	5.7300e-003	0.0000	5.7300e-003			0.0000			0.0000
Off-Road	0.0648	0.8612	1.3798	2.0600e-003		0.0291	0.0291		0.0268	0.0268		199.6735	199.6735	0.0646		201.2879
Total	0.0648	0.8612	1.3798	2.0600e-003	0.0530	0.0291	0.0822	5.7300e-003	0.0268	0.0325		199.6735	199.6735	0.0646		201.2879

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533
Total	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003			0.0000			0.0000
Off-Road	0.0648	0.8612	1.3798	2.0600e-003		0.0291	0.0291		0.0268	0.0268	0.0000	199.6734	199.6734	0.0646		201.2879
Total	0.0648	0.8612	1.3798	2.0600e-003	0.0239	0.0291	0.0530	2.5800e-003	0.0268	0.0294	0.0000	199.6734	199.6734	0.0646		201.2879

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533
Total	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533

3.3 Excavation - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0515	0.0000	0.0515	5.8200e-003	0.0000	5.8200e-003			0.0000			0.0000
Off-Road	0.8285	6.4858	8.5314	0.0212		0.2722	0.2722		0.2504	0.2504		2,052.7735	2,052.7735	0.6639		2,069.3713
Total	0.8285	6.4858	8.5314	0.0212	0.0515	0.2722	0.3237	5.8200e-003	0.2504	0.2562		2,052.7735	2,052.7735	0.6639		2,069.3713

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Excavation - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0153	0.1829	5.5000e-004	0.0657	3.5000e-004	0.0661	0.0174	3.3000e-004	0.0178		56.1616	56.1616	1.6900e-003	1.5800e-003	56.6755
Total	0.0237	0.0153	0.1829	5.5000e-004	0.0657	3.5000e-004	0.0661	0.0174	3.3000e-004	0.0178		56.1616	56.1616	1.6900e-003	1.5800e-003	56.6755

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0232	0.0000	0.0232	2.6200e-003	0.0000	2.6200e-003			0.0000			0.0000
Off-Road	0.8285	6.4858	8.5314	0.0212		0.2722	0.2722		0.2504	0.2504	0.0000	2,052.7735	2,052.7735	0.6639		2,069.3713
Total	0.8285	6.4858	8.5314	0.0212	0.0232	0.2722	0.2953	2.6200e-003	0.2504	0.2530	0.0000	2,052.7735	2,052.7735	0.6639		2,069.3713

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Excavation - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0237	0.0153	0.1829	5.5000e-004	0.0657	3.5000e-004	0.0661	0.0174	3.3000e-004	0.0178		56.1616	56.1616	1.6900e-003	1.5800e-003	56.6755
Total	0.0237	0.0153	0.1829	5.5000e-004	0.0657	3.5000e-004	0.0661	0.0174	3.3000e-004	0.0178		56.1616	56.1616	1.6900e-003	1.5800e-003	56.6755

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2716	18.1697	16.5270	0.0504		0.8144	0.8144		0.7492	0.7492		4,879.7089	4,879.7089	1.5782		4,919.1639
Total	2.2716	18.1697	16.5270	0.0504		0.8144	0.8144		0.7492	0.7492		4,879.7089	4,879.7089	1.5782		4,919.1639

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4800e-003	0.1340	0.0477	6.2000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.5000e-004	6.6000e-003		66.4084	66.4084	2.0000e-003	9.6200e-003	69.3264
Worker	0.0208	0.0134	0.1601	4.8000e-004	0.0575	3.1000e-004	0.0578	0.0153	2.8000e-004	0.0155		49.1414	49.1414	1.4800e-003	1.3800e-003	49.5911
Total	0.0242	0.1474	0.2078	1.1000e-003	0.0778	1.1000e-003	0.0789	0.0211	1.0300e-003	0.0221		115.5498	115.5498	3.4800e-003	0.0110	118.9175

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2716	18.1697	16.5270	0.0504		0.8144	0.8144		0.7492	0.7492	0.0000	4,879.7089	4,879.7089	1.5782		4,919.1639
Total	2.2716	18.1697	16.5270	0.0504		0.8144	0.8144		0.7492	0.7492	0.0000	4,879.7089	4,879.7089	1.5782		4,919.1639

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.4800e-003	0.1340	0.0477	6.2000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.5000e-004	6.6000e-003		66.4084	66.4084	2.0000e-003	9.6200e-003	69.3264
Worker	0.0208	0.0134	0.1601	4.8000e-004	0.0575	3.1000e-004	0.0578	0.0153	2.8000e-004	0.0155		49.1414	49.1414	1.4800e-003	1.3800e-003	49.5911
Total	0.0242	0.1474	0.2078	1.1000e-003	0.0778	1.1000e-003	0.0789	0.0211	1.0300e-003	0.0221		115.5498	115.5498	3.4800e-003	0.0110	118.9175

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2207	17.0717	16.3820	0.0504		0.7586	0.7586		0.6979	0.6979		4,881.2459	4,881.2459	1.5787		4,920.7133
Total	2.2207	17.0717	16.3820	0.0504		0.7586	0.7586		0.6979	0.6979		4,881.2459	4,881.2459	1.5787		4,920.7133

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1331	0.0467	6.0000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.6000e-004	6.6100e-003		65.2532	65.2532	2.0500e-003	9.4600e-003	68.1222
Worker	0.0196	0.0120	0.1499	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.7000e-004	0.0155		47.9109	47.9109	1.3500e-003	1.2900e-003	48.3302
Total	0.0229	0.1451	0.1965	1.0600e-003	0.0778	1.0800e-003	0.0789	0.0211	1.0300e-003	0.0221		113.1641	113.1641	3.4000e-003	0.0108	116.4523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	2.2207	17.0717	16.3820	0.0504		0.7586	0.7586		0.6979	0.6979	0.0000	4,881.2459	4,881.2459	1.5787		4,920.7133
Total	2.2207	17.0717	16.3820	0.0504		0.7586	0.7586		0.6979	0.6979	0.0000	4,881.2459	4,881.2459	1.5787		4,920.7133

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1331	0.0467	6.0000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.6000e-004	6.6100e-003		65.2532	65.2532	2.0500e-003	9.4600e-003	68.1222
Worker	0.0196	0.0120	0.1499	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.7000e-004	0.0155		47.9109	47.9109	1.3500e-003	1.2900e-003	48.3302
Total	0.0229	0.1451	0.1965	1.0600e-003	0.0778	1.0800e-003	0.0789	0.0211	1.0300e-003	0.0221		113.1641	113.1641	3.4000e-003	0.0108	116.4523

3.5 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2882	2.8579	4.1502	6.4100e-003		0.1418	0.1418		0.1304	0.1304		620.6444	620.6444	0.2007		625.6626
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2882	2.8579	4.1502	6.4100e-003		0.1418	0.1418		0.1304	0.1304		620.6444	620.6444	0.2007		625.6626

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0140	8.5900e-003	0.1071	3.3000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.2220	34.2220	9.7000e-004	9.2000e-004	34.5216
Total	0.0140	8.5900e-003	0.1071	3.3000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.2220	34.2220	9.7000e-004	9.2000e-004	34.5216

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.2882	2.8579	4.1502	6.4100e-003		0.1418	0.1418		0.1304	0.1304	0.0000	620.6444	620.6444	0.2007		625.6626
Paving	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Total	0.2882	2.8579	4.1502	6.4100e-003		0.1418	0.1418		0.1304	0.1304	0.0000	620.6444	620.6444	0.2007		625.6626

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0140	8.5900e-003	0.1071	3.3000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.2220	34.2220	9.7000e-004	9.2000e-004	34.5216
Total	0.0140	8.5900e-003	0.1071	3.3000e-004	0.0411	2.1000e-004	0.0413	0.0109	1.9000e-004	0.0111		34.2220	34.2220	9.7000e-004	9.2000e-004	34.5216

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Excavated Material Hauling - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0426	2.7218	0.7277	0.0120	0.3498	0.0223	0.3721	0.0959	0.0213	0.1172		1,323.839 9	1,323.839 9	0.0665	0.2105	1,388.241 0
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total	0.0426	2.7218	0.7277	0.0120	0.3498	0.0223	0.3721	0.0959	0.0213	0.1172		1,323.839 9	1,323.839 9	0.0665	0.2105	1,388.241 0

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Excavated Material Hauling - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0426	2.7218	0.7277	0.0120	0.3498	0.0223	0.3721	0.0959	0.0213	0.1172		1,323.839 ₉	1,323.839 ₉	0.0665	0.2105	1,388.241 ₀
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000			0.0000			0.0000
Total	0.0426	2.7218	0.7277	0.0120	0.3498	0.0223	0.3721	0.0959	0.0213	0.1172		1,323.839₉	1,323.839₉	0.0665	0.2105	1,388.241₀

3.7 Light Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.7954	0.0000	0.7954	0.0859	0.0000	0.0859			0.0000			0.0000
Off-Road	0.0648	0.8612	1.3798	2.0600e-003		0.0291	0.0291		0.0268	0.0268		199.6735	199.6735	0.0646		201.2879
Total	0.0648	0.8612	1.3798	2.0600e-003	0.7954	0.0291	0.8245	0.0859	0.0268	0.1127		199.6735	199.6735	0.0646		201.2879

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.7 Light Grading - 2023

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533
Total	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.3579	0.0000	0.3579	0.0387	0.0000	0.0387			0.0000			0.0000
Off-Road	0.0648	0.8612	1.3798	2.0600e-003		0.0291	0.0291		0.0268	0.0268	0.0000	199.6734	199.6734	0.0646		201.2879
Total	0.0648	0.8612	1.3798	2.0600e-003	0.3579	0.0291	0.3871	0.0387	0.0268	0.0655	0.0000	199.6734	199.6734	0.0646		201.2879

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Light Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533
Total	8.9000e-003	5.7300e-003	0.0686	2.1000e-004	0.0246	1.3000e-004	0.0248	6.5400e-003	1.2000e-004	6.6600e-003		21.0606	21.0606	6.4000e-004	5.9000e-004	21.2533

3.8 Demolition - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					0.0179	0.0000	0.0179	2.7200e-003	0.0000	2.7200e-003			0.0000			0.0000
Off-Road	0.9178	6.8283	8.5770	0.0218		0.2802	0.2802		0.2666	0.2666		2,099.3401	2,099.3401	0.5155		2,112.2263
Total	0.9178	6.8283	8.5770	0.0218	0.0179	0.2802	0.2982	2.7200e-003	0.2666	0.2694		2,099.3401	2,099.3401	0.5155		2,112.2263

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Demolition - 2024

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	0.0135	3.6900e-003	6.0000e-005	1.7500e-003	1.1000e-004	1.8600e-003	4.8000e-004	1.1000e-004	5.9000e-004		6.5028	6.5028	3.4000e-004	1.0300e-003	6.8198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0223	0.0137	0.1713	5.3000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.7553	54.7553	1.5500e-003	1.4800e-003	55.2345
Total	0.0226	0.0272	0.1750	5.9000e-004	0.0675	4.5000e-004	0.0679	0.0179	4.2000e-004	0.0183		61.2581	61.2581	1.8900e-003	2.5100e-003	62.0542

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Fugitive Dust					8.0700e-003	0.0000	8.0700e-003	1.2200e-003	0.0000	1.2200e-003			0.0000			0.0000
Off-Road	0.9178	6.8283	8.5770	0.0218		0.2802	0.2802		0.2666	0.2666	0.0000	2,099.3401	2,099.3401	0.5155		2,112.2263
Total	0.9178	6.8283	8.5770	0.0218	8.0700e-003	0.2802	0.2883	1.2200e-003	0.2666	0.2679	0.0000	2,099.3401	2,099.3401	0.5155		2,112.2263

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.8 Demolition - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	2.1000e-004	0.0135	3.6900e-003	6.0000e-005	1.7500e-003	1.1000e-004	1.8600e-003	4.8000e-004	1.1000e-004	5.9000e-004		6.5028	6.5028	3.4000e-004	1.0300e-003	6.8198
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0223	0.0137	0.1713	5.3000e-004	0.0657	3.4000e-004	0.0661	0.0174	3.1000e-004	0.0177		54.7553	54.7553	1.5500e-003	1.4800e-003	55.2345
Total	0.0226	0.0272	0.1750	5.9000e-004	0.0675	4.5000e-004	0.0679	0.0179	4.2000e-004	0.0183		61.2581	61.2581	1.8900e-003	2.5100e-003	62.0542

3.9 Facilities Installation - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4492	3.9530	3.9953	7.8300e-003		0.1871	0.1871		0.1782	0.1782		750.1551	750.1551	0.1453		753.7866
Total	0.4492	3.9530	3.9953	7.8300e-003		0.1871	0.1871		0.1782	0.1782		750.1551	750.1551	0.1453		753.7866

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.9 Facilities Installation - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1331	0.0467	6.0000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.6000e-004	6.6100e-003		65.2532	65.2532	2.0500e-003	9.4600e-003	68.1222
Worker	0.0196	0.0120	0.1499	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.7000e-004	0.0155		47.9109	47.9109	1.3500e-003	1.2900e-003	48.3302
Total	0.0229	0.1451	0.1965	1.0600e-003	0.0778	1.0800e-003	0.0789	0.0211	1.0300e-003	0.0221		113.1641	113.1641	3.4000e-003	0.0108	116.4523

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Off-Road	0.4492	3.9530	3.9953	7.8300e-003		0.1871	0.1871		0.1782	0.1782	0.0000	750.1551	750.1551	0.1453		753.7866
Total	0.4492	3.9530	3.9953	7.8300e-003		0.1871	0.1871		0.1782	0.1782	0.0000	750.1551	750.1551	0.1453		753.7866

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.9 Facilities Installation - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.3400e-003	0.1331	0.0467	6.0000e-004	0.0203	7.9000e-004	0.0211	5.8500e-003	7.6000e-004	6.6100e-003		65.2532	65.2532	2.0500e-003	9.4600e-003	68.1222
Worker	0.0196	0.0120	0.1499	4.6000e-004	0.0575	2.9000e-004	0.0578	0.0153	2.7000e-004	0.0155		47.9109	47.9109	1.3500e-003	1.2900e-003	48.3302
Total	0.0229	0.1451	0.1965	1.0600e-003	0.0778	1.0800e-003	0.0789	0.0211	1.0300e-003	0.0221		113.1641	113.1641	3.4000e-003	0.0108	116.4523

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	6.5200e-003	7.9000e-003	0.0648	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9800e-003		14.0148	14.0148	9.7000e-004	6.2000e-004	14.2247
Unmitigated	6.5200e-003	7.9000e-003	0.0648	1.4000e-004	0.0146	1.1000e-004	0.0147	3.8800e-003	1.0000e-004	3.9800e-003		14.0148	14.0148	9.7000e-004	6.2000e-004	14.2247

4.2 Trip Summary Information

Land Use	Average Daily Trip Rate			Unmitigated	Mitigated
	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	2.00	2.00	2.00	6,916	6,916
Total	2.00	2.00	2.00	6,916	6,916

4.3 Trip Type Information

Land Use	Miles			Trip %			Trip Purpose %		
	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.0 Energy Detail**

Historical Energy Use: N

5.1 Mitigation Measures Energy

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
NaturalGas Mitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
NaturalGas Unmitigated	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

5.2 Energy by Land Use - NaturalGas**Unmitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.2 Energy by Land Use - NaturalGas****Mitigated**

	NaturalGas Use	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Land Use	kBTU/yr	lb/day										lb/day					
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000

6.0 Area Detail**6.1 Mitigation Measures Area**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	lb/day										lb/day					
Mitigated	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Unmitigated	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	lb/day										lb/day					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Consumer Products	0.3449					0.0000	0.0000		0.0000	0.0000			0.0000			0.0000
Landscaping	1.0000e-005	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004
Total	0.3449	0.0000	1.0000e-004	0.0000		0.0000	0.0000		0.0000	0.0000		2.2000e-004	2.2000e-004	0.0000		2.3000e-004

7.0 Water Detail**7.1 Mitigation Measures Water****8.0 Waste Detail****8.1 Mitigation Measures Waste****9.0 Operational Offroad**

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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10.0 Stationary Equipment**Fire Pumps and Emergency Generators**

Cottonwood Sewer Lift Station Replacement - San Diego County, Winter

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	50	270	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	lb/day										lb/day					
Emergency Generator - Diesel (175 - 300 HP)	0.1108	0.3096	0.2825	5.3000e-004		0.0163	0.0163		0.0163	0.0163		56.6672	56.6672	7.9400e-003		56.8658
Total	0.1108	0.3096	0.2825	5.3000e-004		0.0163	0.0163		0.0163	0.0163		56.6672	56.6672	7.9400e-003		56.8658

11.0 Vegetation

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**Cottonwood Sewer Lift Station Replacement
San Diego County, Annual****1.0 Project Characteristics****1.1 Land Usage**

Land Uses	Size	Metric	Lot Acreage	Floor Surface Area	Population
User Defined Industrial	1.00	User Defined Unit	0.37	16,117.00	0

1.2 Other Project Characteristics

Urbanization	Urban	Wind Speed (m/s)	2.6	Precipitation Freq (Days)	40
Climate Zone	13			Operational Year	2023
Utility Company	San Diego Gas & Electric				
CO2 Intensity (lb/MWhr)	539.98	CH4 Intensity (lb/MWhr)	0.033	N2O Intensity (lb/MWhr)	0.004

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use - User Defined Industrial Used for Lift Station. Project site area = 0.37 acre (16,117 SF).

Construction Phase - Construction phasing information provided by Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant; off-highway truck = dump truck.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Off-site (on-road) trucks only for material export.

Off-road Equipment - Construction equipment per Project Applicant.

Off-road Equipment - Construction equipment per Project Applicant; off-highway trucks = 1 concrete pump truck, 1 concrete mixer truck, 1 dump truck.

Off-road Equipment - Construction equipment per Project Applicant; off-highway truck = dump truck.

Off-road Equipment - Construction equipment per Project Applicant.

Grading - Model-calculated changes to total acres graded.

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Demolition - Demolition of existing lift station structure; estimated to have an area of 180 SF based on Google Earth imagery.

Trips and VMT - 1,500 CY of material to be exported via 200 haul truck trips over 10 days.

Vehicle Trips - One maintenance visit (2 one-way trips) per day per Project Applicant.

Area Coating - No architectural coatings.

Energy Use - 70 kWh per day per Project Applicant.

Stationary Sources - Emergency Generators and Fire Pumps - Backup generator. Size based on two 40 hp pumps and this source:
<<https://franklinwater.com/more/service/aim-manual/motor-application/all-motors/page-5/>>

Construction Off-road Equipment Mitigation - Standard dust control measures.

Table Name	Column Name	Default Value	New Value
tblAreaCoating	Area_Nonresidential_Exterior	8059	0
tblAreaCoating	Area_Nonresidential_Interior	24176	0
tblConstDustMitigation	WaterUnpavedRoadMoistureContent	0	12
tblConstDustMitigation	WaterUnpavedRoadVehicleSpeed	0	15
tblConstructionPhase	NumDays	100.00	120.00
tblConstructionPhase	NumDays	2.00	35.00
tblConstructionPhase	NumDays	1.00	10.00
tblConstructionPhase	NumDays	2.00	10.00
tblConstructionPhase	NumDays	100.00	70.00
tblConstructionPhase	PhaseEndDate	2/28/2024	5/24/2024
tblConstructionPhase	PhaseEndDate	10/11/2023	11/24/2023
tblConstructionPhase	PhaseEndDate	3/6/2024	9/20/2024
tblConstructionPhase	PhaseEndDate	10/9/2023	10/6/2023
tblConstructionPhase	PhaseStartDate	10/12/2023	12/11/2023
tblConstructionPhase	PhaseStartDate	10/10/2023	10/9/2023
tblConstructionPhase	PhaseStartDate	2/29/2024	9/16/2024
tblConstructionPhase	PhaseStartDate	10/7/2023	9/25/2023
tblEnergyUse	T24E	0.00	1.59
tblGrading	AcresOfGrading	0.00	1.50
tblGrading	AcresOfGrading	0.00	0.50

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblGrading	AcresOfGrading	0.00	7.50
tblGrading	MaterialExported	0.00	1,500.00
tblLandUse	LandUseSquareFeet	0.00	16,117.00
tblLandUse	LotAcreage	0.00	0.37
tblOffRoadEquipment	HorsePower	46.00	97.00
tblOffRoadEquipment	LoadFactor	0.45	0.37
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.50	0.50
tblOffRoadEquipment	LoadFactor	0.38	0.38
tblOffRoadEquipment	LoadFactor	0.37	0.37
tblOffRoadEquipment	OffRoadEquipmentType	Tractors/Loaders/Backhoes	Welders
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Trenchers
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Skid Steer Loaders
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	4.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	1.00	0.00
tblStationaryGeneratorsPumpsEF	CH4_EF	0.07	0.07
tblStationaryGeneratorsPumpsEF	ROG_EF	2.2480e-003	2.2477e-003
tblStationaryGeneratorsPumpsUse	HorsePowerValue	0.00	270.00
tblStationaryGeneratorsPumpsUse	HoursPerDay	0.00	0.25
tblStationaryGeneratorsPumpsUse	HoursPerYear	0.00	50.00
tblStationaryGeneratorsPumpsUse	NumberOfEquipment	0.00	1.00
tblTripsAndVMT	HaulingTripNumber	188.00	0.00
tblTripsAndVMT	HaulingTripNumber	0.00	200.00
tblTripsAndVMT	HaulingVehicleClass		HHDT
tblVehicleTrips	CW_TTP	0.00	100.00
tblVehicleTrips	PR_TP	0.00	100.00
tblVehicleTrips	ST_TR	0.00	2.00
tblVehicleTrips	SU_TR	0.00	2.00
tblVehicleTrips	WD_TR	0.00	2.00

2.0 Emissions Summary

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**2.1 Overall Construction****Unmitigated Construction**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0330	0.2734	0.2961	8.5000e-004	8.7900e-003	0.0113	0.0201	1.5500e-003	0.0104	0.0119	0.0000	75.4842	75.4842	0.0222	1.0600e-003	76.3554
2024	0.1396	1.0887	1.0714	3.1400e-003	7.1700e-003	0.0482	0.0554	1.9400e-003	0.0446	0.0466	0.0000	276.5990	276.5990	0.0829	8.6000e-004	278.9285
Maximum	0.1396	1.0887	1.0714	3.1400e-003	8.7900e-003	0.0482	0.0554	1.9400e-003	0.0446	0.0466	0.0000	276.5990	276.5990	0.0829	1.0600e-003	278.9285

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2023	0.0330	0.2734	0.2961	8.5000e-004	5.9600e-003	0.0113	0.0173	1.2400e-003	0.0104	0.0116	0.0000	75.4841	75.4841	0.0222	1.0600e-003	76.3553
2024	0.1396	1.0887	1.0714	3.1400e-003	7.1200e-003	0.0482	0.0554	1.9300e-003	0.0446	0.0466	0.0000	276.5987	276.5987	0.0829	8.6000e-004	278.9282
Maximum	0.1396	1.0887	1.0714	3.1400e-003	7.1200e-003	0.0482	0.0554	1.9300e-003	0.0446	0.0466	0.0000	276.5987	276.5987	0.0829	1.0600e-003	278.9282

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	18.05	0.00	3.82	9.17	0.00	0.53	0.00	0.00	0.00	0.00	0.00	0.00

Quarter	Start Date	End Date	Maximum Unmitigated ROG + NOX (tons/quarter)	Maximum Mitigated ROG + NOX (tons/quarter)
1	9-25-2023	12-24-2023	0.2464	0.2464
2	12-25-2023	3-24-2024	0.6353	0.6353
3	3-25-2024	6-24-2024	0.4711	0.4711
4	6-25-2024	9-24-2024	0.1482	0.1482
		Highest	0.6353	0.6353

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0630	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2569	6.2569	3.8000e-004	5.0000e-005	6.2802
Mobile	1.1600e-003	1.4200e-003	0.0116	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3272	2.3272	1.6000e-004	1.0000e-004	2.3614
Stationary	0.0111	0.0310	0.0282	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1408	5.1408	7.2000e-004	0.0000	5.1588
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0752	0.0324	0.0398	7.0000e-005	2.5900e-003	1.6500e-003	4.2400e-003	6.9000e-004	1.6500e-003	2.3400e-003	0.0000	13.7248	13.7248	1.2600e-003	1.5000e-004	13.8005

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

2.2 Overall Operational

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0630	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Energy	0.0000	0.0000	0.0000	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	6.2569	6.2569	3.8000e-004	5.0000e-005	6.2802
Mobile	1.1600e-003	1.4200e-003	0.0116	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3272	2.3272	1.6000e-004	1.0000e-004	2.3614
Stationary	0.0111	0.0310	0.0282	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1408	5.1408	7.2000e-004	0.0000	5.1588
Waste						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Water						0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	0.0752	0.0324	0.0398	7.0000e-005	2.5900e-003	1.6500e-003	4.2400e-003	6.9000e-004	1.6500e-003	2.3400e-003	0.0000	13.7248	13.7248	1.2600e-003	1.5000e-004	13.8005

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	9/25/2023	10/6/2023	5	10	
2	Excavation	Grading	10/9/2023	11/24/2023	5	35	

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3	Building Construction	Building Construction	12/11/2023	5/24/2024	5	120
4	Paving	Paving	9/16/2024	9/20/2024	5	5
5	Excavated Material Hauling	Trenching	11/13/2023	11/24/2023	5	10
6	Light Grading	Grading	11/27/2023	12/8/2023	5	10
7	Demolition	Demolition	9/2/2024	9/13/2024	5	10
8	Facilities Installation	Building Construction	5/27/2024	8/30/2024	5	70

Acres of Grading (Site Preparation Phase): 0.5**Acres of Grading (Grading Phase): 1.5****Acres of Paving: 0****Residential Indoor: 0; Residential Outdoor: 0; Non-Residential Indoor: 0; Non-Residential Outdoor: 0; Striped Parking Area: 0 (Architectural Coating – sqft)****OffRoad Equipment**

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Facilities Installation	Cranes	1	4.00	231	0.29
Paving	Cement and Mortar Mixers	0	6.00	9	0.56
Demolition	Concrete/Industrial Saws	1	8.00	81	0.73
Building Construction	Cranes	1	4.00	231	0.29
Building Construction	Forklifts	1	6.00	89	0.20
Excavation	Graders	0	6.00	187	0.41
Site Preparation	Graders	0	8.00	187	0.41
Paving	Pavers	1	7.00	130	0.42
Paving	Rollers	1	7.00	80	0.38
Demolition	Rubber Tired Dozers	0	1.00	247	0.40
Excavation	Rubber Tired Dozers	0	6.00	247	0.40
Building Construction	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Demolition	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Excavation	Tractors/Loaders/Backhoes	1	7.00	97	0.37

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Paving	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	0	8.00	97	0.37
Facilities Installation	Forklifts	1	6.00	89	0.20
Light Grading	Graders	0	6.00	187	0.41
Light Grading	Rubber Tired Dozers	0	6.00	247	0.40
Facilities Installation	Welders	1	8.00	97	0.37
Light Grading	Tractors/Loaders/Backhoes	0	7.00	97	0.37
Demolition	Off-Highway Trucks	1	8.00	402	0.38
Site Preparation	Skid Steer Loaders	1	8.00	65	0.37
Excavation	Excavators	1	8.00	158	0.38
Excavation	Off-Highway Trucks	1	8.00	402	0.38
Building Construction	Trenchers	1	8.00	78	0.50
Building Construction	Off-Highway Trucks	3	8.00	402	0.38
Light Grading	Skid Steer Loaders	1	8.00	65	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Demolition	3	8.00	0.00	1.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Site Preparation	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavation	3	8.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Building Construction	7	7.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Paving	2	5.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Excavated Material Hauling	0		0.00	200.00	10.80	7.30	20.00			HHDT
Light Grading	1	3.00	0.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT
Facilities Installation	3	7.00	3.00	0.00	10.80	7.30	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Water Exposed Area

Water Unpaved Roads

Reduce Vehicle Speed on Unpaved Roads

3.2 Site Preparation - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130
Total	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005	2.7000e-004	1.5000e-004	4.2000e-004	3.0000e-005	1.3000e-004	1.6000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.2 Site Preparation - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.2000e-004	0.0000	1.2000e-004	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130
Total	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005	1.2000e-004	1.5000e-004	2.7000e-004	1.0000e-005	1.3000e-004	1.4000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.2 Site Preparation - 2023

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972

3.3 Excavation - 2023

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-004	0.0000	9.0000e-004	1.0000e-004	0.0000	1.0000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0145	0.1135	0.1493	3.7000e-004		4.7600e-003	4.7600e-003		4.3800e-003	4.3800e-003	0.0000	32.5893	32.5893	0.0105	0.0000	32.8528
Total	0.0145	0.1135	0.1493	3.7000e-004	9.0000e-004	4.7600e-003	5.6600e-003	1.0000e-004	4.3800e-003	4.4800e-003	0.0000	32.5893	32.5893	0.0105	0.0000	32.8528

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Excavation - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8995	0.8995	3.0000e-005	2.0000e-005	0.9076
Total	3.8000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8995	0.8995	3.0000e-005	2.0000e-005	0.9076

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.1000e-004	0.0000	4.1000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0145	0.1135	0.1493	3.7000e-004		4.7600e-003	4.7600e-003		4.3800e-003	4.3800e-003	0.0000	32.5893	32.5893	0.0105	0.0000	32.8528
Total	0.0145	0.1135	0.1493	3.7000e-004	4.1000e-004	4.7600e-003	5.1700e-003	5.0000e-005	4.3800e-003	4.4300e-003	0.0000	32.5893	32.5893	0.0105	0.0000	32.8528

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.3 Excavation - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.8000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8995	0.8995	3.0000e-005	2.0000e-005	0.9076
Total	3.8000e-004	2.6000e-004	3.2000e-003	1.0000e-005	1.1200e-003	1.0000e-005	1.1300e-003	3.0000e-004	1.0000e-005	3.0000e-004	0.0000	0.8995	0.8995	3.0000e-005	2.0000e-005	0.9076

3.4 Building Construction - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.1363	0.1240	3.8000e-004		6.1100e-003	6.1100e-003		5.6200e-003	5.6200e-003	0.0000	33.2010	33.2010	0.0107	0.0000	33.4694
Total	0.0170	0.1363	0.1240	3.8000e-004		6.1100e-003	6.1100e-003		5.6200e-003	5.6200e-003	0.0000	33.2010	33.2010	0.0107	0.0000	33.4694

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0000e-003	3.5000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4515	0.4515	1.0000e-005	7.0000e-005	0.4713
Worker	1.4000e-004	1.0000e-004	1.2000e-003	0.0000	4.2000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3373	0.3373	1.0000e-005	1.0000e-005	0.3403
Total	1.7000e-004	1.1000e-003	1.5500e-003	0.0000	5.7000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.7888	0.7888	2.0000e-005	8.0000e-005	0.8116

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0170	0.1363	0.1240	3.8000e-004		6.1100e-003	6.1100e-003		5.6200e-003	5.6200e-003	0.0000	33.2009	33.2009	0.0107	0.0000	33.4694
Total	0.0170	0.1363	0.1240	3.8000e-004		6.1100e-003	6.1100e-003		5.6200e-003	5.6200e-003	0.0000	33.2009	33.2009	0.0107	0.0000	33.4694

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	3.0000e-005	1.0000e-003	3.5000e-004	0.0000	1.5000e-004	1.0000e-005	1.6000e-004	4.0000e-005	1.0000e-005	5.0000e-005	0.0000	0.4515	0.4515	1.0000e-005	7.0000e-005	0.4713
Worker	1.4000e-004	1.0000e-004	1.2000e-003	0.0000	4.2000e-004	0.0000	4.2000e-004	1.1000e-004	0.0000	1.1000e-004	0.0000	0.3373	0.3373	1.0000e-005	1.0000e-005	0.3403
Total	1.7000e-004	1.1000e-003	1.5500e-003	0.0000	5.7000e-004	1.0000e-005	5.8000e-004	1.5000e-004	1.0000e-005	1.6000e-004	0.0000	0.7888	0.7888	2.0000e-005	8.0000e-005	0.8116

3.4 Building Construction - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1166	0.8963	0.8601	2.6500e-003		0.0398	0.0398		0.0366	0.0366	0.0000	232.4801	232.4801	0.0752	0.0000	234.3598
Total	0.1166	0.8963	0.8601	2.6500e-003		0.0398	0.0398		0.0366	0.0366	0.0000	232.4801	232.4801	0.0752	0.0000	234.3598

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	6.9400e-003	2.4100e-003	3.0000e-005	1.0500e-003	4.0000e-005	1.0900e-003	3.0000e-004	4.0000e-005	3.4000e-004	0.0000	3.1052	3.1052	1.0000e-004	4.5000e-004	3.2417
Worker	9.3000e-004	6.2000e-004	7.8600e-003	2.0000e-005	2.9500e-003	2.0000e-005	2.9600e-003	7.8000e-004	1.0000e-005	8.0000e-004	0.0000	2.3020	2.3020	6.0000e-005	6.0000e-005	2.3217
Total	1.1100e-003	7.5600e-003	0.0103	5.0000e-005	4.0000e-003	6.0000e-005	4.0500e-003	1.0800e-003	5.0000e-005	1.1400e-003	0.0000	5.4072	5.4072	1.6000e-004	5.1000e-004	5.5634

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.1166	0.8963	0.8601	2.6500e-003		0.0398	0.0398		0.0366	0.0366	0.0000	232.4798	232.4798	0.0752	0.0000	234.3595
Total	0.1166	0.8963	0.8601	2.6500e-003		0.0398	0.0398		0.0366	0.0366	0.0000	232.4798	232.4798	0.0752	0.0000	234.3595

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.4 Building Construction - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.8000e-004	6.9400e-003	2.4100e-003	3.0000e-005	1.0500e-003	4.0000e-005	1.0900e-003	3.0000e-004	4.0000e-005	3.4000e-004	0.0000	3.1052	3.1052	1.0000e-004	4.5000e-004	3.2417
Worker	9.3000e-004	6.2000e-004	7.8600e-003	2.0000e-005	2.9500e-003	2.0000e-005	2.9600e-003	7.8000e-004	1.0000e-005	8.0000e-004	0.0000	2.3020	2.3020	6.0000e-005	6.0000e-005	2.3217
Total	1.1100e-003	7.5600e-003	0.0103	5.0000e-005	4.0000e-003	6.0000e-005	4.0500e-003	1.0800e-003	5.0000e-005	1.1400e-003	0.0000	5.4072	5.4072	1.6000e-004	5.1000e-004	5.5634

3.5 Paving - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-004	7.1400e-003	0.0104	2.0000e-005		3.5000e-004	3.5000e-004		3.3000e-004	3.3000e-004	0.0000	1.4076	1.4076	4.6000e-004	0.0000	1.4190
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.2000e-004	7.1400e-003	0.0104	2.0000e-005		3.5000e-004	3.5000e-004		3.3000e-004	3.3000e-004	0.0000	1.4076	1.4076	4.6000e-004	0.0000	1.4190

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0790
Total	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0790

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	7.2000e-004	7.1400e-003	0.0104	2.0000e-005		3.5000e-004	3.5000e-004		3.3000e-004	3.3000e-004	0.0000	1.4076	1.4076	4.6000e-004	0.0000	1.4190
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	7.2000e-004	7.1400e-003	0.0104	2.0000e-005		3.5000e-004	3.5000e-004		3.3000e-004	3.3000e-004	0.0000	1.4076	1.4076	4.6000e-004	0.0000	1.4190

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.5 Paving - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0790
Total	3.0000e-005	2.0000e-005	2.7000e-004	0.0000	1.0000e-004	0.0000	1.0000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0783	0.0783	0.0000	0.0000	0.0790

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Excavated Material Hauling - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.6 Excavated Material Hauling - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934
Vendor					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	2.2000e-004	0.0136	3.6100e-003	6.0000e-005	1.7100e-003	1.1000e-004	1.8200e-003	4.7000e-004	1.1000e-004	5.8000e-004	0.0000	6.0015	6.0015	3.0000e-004	9.5000e-004	6.2934

3.7 Light Grading - 2023**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9800e-003	0.0000	3.9800e-003	4.3000e-004	0.0000	4.3000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130
Total	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005	3.9800e-003	1.5000e-004	4.1300e-003	4.3000e-004	1.3000e-004	5.6000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Light Grading - 2023****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					1.7900e-003	0.0000	1.7900e-003	1.9000e-004	0.0000	1.9000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005		1.5000e-004	1.5000e-004		1.3000e-004	1.3000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130
Total	3.2000e-004	4.3100e-003	6.9000e-003	1.0000e-005	1.7900e-003	1.5000e-004	1.9400e-003	1.9000e-004	1.3000e-004	3.2000e-004	0.0000	0.9057	0.9057	2.9000e-004	0.0000	0.9130

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EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.7 Light Grading - 2023****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972
Total	4.0000e-005	3.0000e-005	3.4000e-004	0.0000	1.2000e-004	0.0000	1.2000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0964	0.0964	0.0000	0.0000	0.0972

3.8 Demolition - 2024**Unmitigated Construction On-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					9.0000e-005	0.0000	9.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5900e-003	0.0341	0.0429	1.1000e-004		1.4000e-003	1.4000e-003		1.3300e-003	1.3300e-003	0.0000	9.5225	9.5225	2.3400e-003	0.0000	9.5809
Total	4.5900e-003	0.0341	0.0429	1.1000e-004	9.0000e-005	1.4000e-003	1.4900e-003	1.0000e-005	1.3300e-003	1.3400e-003	0.0000	9.5225	9.5225	2.3400e-003	0.0000	9.5809

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.8 Demolition - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0295	0.0295	0.0000	0.0000	0.0309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.6000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	1.0000e-005	0.2527
Total	1.0000e-004	1.4000e-004	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2800	0.2800	1.0000e-005	1.0000e-005	0.2836

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					4.0000e-005	0.0000	4.0000e-005	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	4.5900e-003	0.0341	0.0429	1.1000e-004		1.4000e-003	1.4000e-003		1.3300e-003	1.3300e-003	0.0000	9.5224	9.5224	2.3400e-003	0.0000	9.5809
Total	4.5900e-003	0.0341	0.0429	1.1000e-004	4.0000e-005	1.4000e-003	1.4400e-003	1.0000e-005	1.3300e-003	1.3400e-003	0.0000	9.5224	9.5224	2.3400e-003	0.0000	9.5809

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

3.8 Demolition - 2024

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	7.0000e-005	2.0000e-005	0.0000	1.0000e-005	0.0000	1.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0295	0.0295	0.0000	0.0000	0.0309
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.0000e-004	7.0000e-005	8.6000e-004	0.0000	3.2000e-004	0.0000	3.2000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2506	0.2506	1.0000e-005	1.0000e-005	0.2527
Total	1.0000e-004	1.4000e-004	8.8000e-004	0.0000	3.3000e-004	0.0000	3.3000e-004	9.0000e-005	0.0000	9.0000e-005	0.0000	0.2800	0.2800	1.0000e-005	1.0000e-005	0.2836

3.9 Facilities Installation - 2024

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.1384	0.1398	2.7000e-004		6.5500e-003	6.5500e-003		6.2400e-003	6.2400e-003	0.0000	23.8185	23.8185	4.6100e-003	0.0000	23.9338
Total	0.0157	0.1384	0.1398	2.7000e-004		6.5500e-003	6.5500e-003		6.2400e-003	6.2400e-003	0.0000	23.8185	23.8185	4.6100e-003	0.0000	23.9338

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.9 Facilities Installation - 2024****Unmitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.6300e-003	1.6100e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.2000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.0701	2.0701	7.0000e-005	3.0000e-004	2.1611
Worker	6.2000e-004	4.1000e-004	5.2400e-003	2.0000e-005	1.9600e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5347	1.5347	4.0000e-005	4.0000e-005	1.5478
Total	7.4000e-004	5.0400e-003	6.8500e-003	4.0000e-005	2.6600e-003	4.0000e-005	2.7000e-003	7.2000e-004	4.0000e-005	7.6000e-004	0.0000	3.6048	3.6048	1.1000e-004	3.4000e-004	3.7090

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0157	0.1384	0.1398	2.7000e-004		6.5500e-003	6.5500e-003		6.2400e-003	6.2400e-003	0.0000	23.8185	23.8185	4.6100e-003	0.0000	23.9338
Total	0.0157	0.1384	0.1398	2.7000e-004		6.5500e-003	6.5500e-003		6.2400e-003	6.2400e-003	0.0000	23.8185	23.8185	4.6100e-003	0.0000	23.9338

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**3.9 Facilities Installation - 2024****Mitigated Construction Off-Site**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	1.2000e-004	4.6300e-003	1.6100e-003	2.0000e-005	7.0000e-004	3.0000e-005	7.2000e-004	2.0000e-004	3.0000e-005	2.3000e-004	0.0000	2.0701	2.0701	7.0000e-005	3.0000e-004	2.1611
Worker	6.2000e-004	4.1000e-004	5.2400e-003	2.0000e-005	1.9600e-003	1.0000e-005	1.9800e-003	5.2000e-004	1.0000e-005	5.3000e-004	0.0000	1.5347	1.5347	4.0000e-005	4.0000e-005	1.5478
Total	7.4000e-004	5.0400e-003	6.8500e-003	4.0000e-005	2.6600e-003	4.0000e-005	2.7000e-003	7.2000e-004	4.0000e-005	7.6000e-004	0.0000	3.6048	3.6048	1.1000e-004	3.4000e-004	3.7090

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**4.0 Operational Detail - Mobile****4.1 Mitigation Measures Mobile**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	1.1600e-003	1.4200e-003	0.0116	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3272	2.3272	1.6000e-004	1.0000e-004	2.3614
Unmitigated	1.1600e-003	1.4200e-003	0.0116	2.0000e-005	2.5900e-003	2.0000e-005	2.6100e-003	6.9000e-004	2.0000e-005	7.1000e-004	0.0000	2.3272	2.3272	1.6000e-004	1.0000e-004	2.3614

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
User Defined Industrial	2.00	2.00	2.00	6,916	6,916
Total	2.00	2.00	2.00	6,916	6,916

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by
User Defined Industrial	9.50	7.30	7.30	100.00	0.00	0.00	100	0	0

4.4 Fleet Mix

Land Use	LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
User Defined Industrial	0.553514	0.062792	0.181046	0.120736	0.024419	0.006214	0.008493	0.006184	0.000715	0.000556	0.029185	0.000982	0.005164

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Historical Energy Use: N

5.1 Mitigation Measures Energy

[illegible]

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

Unmitigated

[illegible]

Mitigated

[illegible]

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**5.3 Energy by Land Use - Electricity****Unmitigated**

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	25545.4	6.2569	3.8000e-004	5.0000e-005	6.2802
Total		6.2569	3.8000e-004	5.0000e-005	6.2802

Mitigated

	Electricity Use	Total CO2	CH4	N2O	CO2e
Land Use	kWh/yr	MT/yr			
User Defined Industrial	25545.4	6.2569	3.8000e-004	5.0000e-005	6.2802
Total		6.2569	3.8000e-004	5.0000e-005	6.2802

6.0 Area Detail**6.1 Mitigation Measures Area**

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Mitigated	0.0630	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Unmitigated	0.0630	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

6.2 Area by SubCategory**Unmitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0629	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**6.2 Area by SubCategory****Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
SubCategory	tons/yr										MT/yr					
Architectural Coating	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Consumer Products	0.0629					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Landscaping	0.0000	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005
Total	0.0629	0.0000	1.0000e-005	0.0000		0.0000	0.0000		0.0000	0.0000	0.0000	2.0000e-005	2.0000e-005	0.0000	0.0000	2.0000e-005

7.0 Water Detail**7.1 Mitigation Measures Water**

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied

	Total CO2	CH4	N2O	CO2e
Category	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

7.2 Water by Land Use**Unmitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**7.2 Water by Land Use****Mitigated**

	Indoor/Outdoor Use	Total CO2	CH4	N2O	CO2e
Land Use	Mgal	MT/yr			
User Defined Industrial	0 / 0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

8.0 Waste Detail**8.1 Mitigation Measures Waste****Category/Year**

	Total CO2	CH4	N2O	CO2e
	MT/yr			
Mitigated	0.0000	0.0000	0.0000	0.0000
Unmitigated	0.0000	0.0000	0.0000	0.0000

Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**8.2 Waste by Land Use****Unmitigated**

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

Mitigated

	Waste Disposed	Total CO2	CH4	N2O	CO2e
Land Use	tons	MT/yr			
User Defined Industrial	0	0.0000	0.0000	0.0000	0.0000
Total		0.0000	0.0000	0.0000	0.0000

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type
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Cottonwood Sewer Lift Station Replacement - San Diego County, Annual

EMFAC Off-Model Adjustment Factors for Gasoline Light Duty Vehicle to Account for the SAFE Vehicle Rule Applied**10.0 Stationary Equipment****Fire Pumps and Emergency Generators**

Equipment Type	Number	Hours/Day	Hours/Year	Horse Power	Load Factor	Fuel Type
Emergency Generator	1	0.25	50	270	0.73	Diesel

Boilers

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

Equipment Type	Number
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10.1 Stationary Sources**Unmitigated/Mitigated**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Equipment Type	tons/yr										MT/yr					
Emergency Generator - Diesel (175 - 300 HP)	0.0111	0.0310	0.0282	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1408	5.1408	7.2000e-004	0.0000	5.1588
Total	0.0111	0.0310	0.0282	5.0000e-005		1.6300e-003	1.6300e-003		1.6300e-003	1.6300e-003	0.0000	5.1408	5.1408	7.2000e-004	0.0000	5.1588

11.0 Vegetation

Initial Study Appendix B

Biological Assessment

August 18, 2021

00623.00006.006

Ms. Lisa Coburn-Boyd
Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096

Subject: Biological Assessment for the Cottonwood Sewer Lift Station Replacement Project

Dear Ms. Coburn-Boyd:

HELIX Environmental Planning, Inc. (HELIX) conducted a biological resources assessment for the Cottonwood Sewer Lift Station Replacement Project (project), located in the community of Jamul, in the County of San Diego. This letter summarizes the site's existing conditions, potential survey requirements, and assessment of regulatory requirements (constraints).

PROJECT LOCATION

The project is located in the unincorporated community of Jamul in eastern San Diego County, 0.9 mile north of State Route (SR) 94 and 0.6 mile southeast of SR 54 (Figure 1, *Regional Location*, and Figure 2, *USGS Topography*). The project site extends north from the western terminus of Par 4 Drive, approximately 1,500 feet west of Steele Canyon Road, and is partially within an abandoned area of the golf course associated with the Cottonwood Golf Club (Figure 3, *Aerial Photograph*). The San Diego National Wildlife Refuge (SDNWR) is located immediately south of the project site. Access to the site is provided via Par 4 Drive and Steele Canyon Road, either from SR 94 to the south or from Willow Glen Drive and SR 54 to the north.

U.S. Fish and Wildlife Service- (USFWS) designated critical habitat for San Diego ambrosia (*Ambrosia pumila*), coastal California gnatcatcher (*Poliophtila californica californica*), and proposed critical habitat for Hermes copper butterfly (*Lycaena hermes*) are shown on Figure 4, *Vegetation Communities and Sensitive Resources*. The critical habitat for San Diego ambrosia slightly overlaps the project footprint along the southern edge; however, the activities will be entirely conducted within the existing developed and disturbed areas north of the mapped population. Critical habitat for coastal California gnatcatcher and proposed critical habitat for Hermes copper butterfly overlap with the southern portion of the study area, but do not overlap with the project footprint.

PROJECT DESCRIPTION

Otay Water District (OWD) proposes the project to replace an existing sewer lift station with a new and expanded sewer lift station on the adjacent property, and expand an existing access road that provides access to the existing lift station. The existing lift station is located within a 40-foot by 40-foot OWD easement. The existing access road runs south from the existing lift station through a 20-foot wide by 312-foot long OWD easement to the western terminus of Par 4 Drive. The total area of the existing easements is 0.18 acre. As part of the Project, OW D would acquire 0.19 acre of property to the west of the existing easements, resulting in a total project site area of 0.37 acre (Figure 3).

The proposed lift station would have a capacity of between 500 and 600 gallons per minute (gpm) and would replace the existing 400-gpm lift station. The expanded capacity would be to serve anticipated development in the area. In addition to expanding lift station capacity, the project would increase the overall property area to allow for storage and greater functionality (e.g., turnaround capability for maintenance trucks).

The project site would include the lift station structure, a diesel-powered emergency backup generator, an emergency storage tank, an existing transformer (to remain), and the expanded access road. The lift station structure would house a below-grade wet well and dry well, two 40-horsepower (HP) pumps, a fan for ventilation, and a control room. The generator, emergency storage tank, and existing transformer would be located on a concrete pad that would surround the lift station structure. The emergency storage tank would have a capacity of approximately 40,000 gallons, or enough to provide at least two hours of storage. During normal operations, the lift station would be powered by the existing on-site transformer that currently powers the existing lift station. The emergency backup generator would power the lift station in the instance of failure of the transformer.

The lift station would tie in to and receive wastewater flows from an existing 10-inch gravity sewer, located at a depth of 12 feet below ground surface (bgs) at the site, that conveys wastewater west from residential development located to the east of the site. After being pumped at the lift station, the wastewater would be discharged into an existing six-inch sewer force main, located approximately four feet bgs at the site, then be conveyed east and then north along Steele Canyon Road to an existing gravity sewer in Willow Glen Drive. The flows would then be conveyed via existing pipelines to OW D's Ralph W. Chapman Water Recycling Facility (RWCWRF), located approximately 0.8 mile southwest of the intersection of SR 94 and SR 54, where it would be treated.

The existing lift station would remain in operation until the new lift station is constructed and ready for operation, to allow for continuous wastewater conveyance. Once the new lift station becomes operational, the existing lift station would be demolished.

Construction of the project would require site preparation to clear existing vegetation, excavation for the below-grade wet well and dry well, light grading for the site area surrounding the lift station and for the expanded access road, construction of the lift station structure and site area pad, installation and connection of facilities, paving, and demolition of existing structures. Construction is expected to require approximately one year to complete and would occur between the hours of 7:00 a.m. and 7:00 p.m. in accordance with the County of San Diego Municipal Code. Excavation is currently estimated to result in 1,500 cubic yards (CY) of export, which would either be taken by the adjacent golf course or transported

to an existing legal disposal site. Construction staging would occur either within the project site or within adjacent disturbed areas of the abandoned golf course.

The proposed facilities would be designed and constructed in conformance with pertinent engineering standards, including applicable elements of the Water Agencies' Standards *Design Guidelines for Water, Recycled Water and Sewer Facilities* and *Standard Specifications for Water, Recycled Water and Sewer Facilities*, which OWD has adopted as their design and construction standards. The project would also conform to current versions of the International Code Council *International Building Code* (IBC) and the related California Building Standards Commission *California Building Code* (CBC).

Once construction activities are complete, activities on-site would be limited to routine maintenance of facilities, consistent with the requirements of the current lift station. The diesel-powered backup generator would run a maximum of 50 hours annually for maintenance and testing purposes, and then when normal power supply is lost.

METHODS

Literature Review

Prior to conducting biological field surveys, HELIX conducted a thorough review of relevant maps, databases, and literature pertaining to the biological resources known to occur within the study area. Recent and historical aerial imagery, USGS topographic maps, soils maps (Natural Resource Conservation Service [NRCS] 2021), and other maps of the study area and vicinity were acquired and reviewed to obtain updated information on the natural environmental setting.

In addition, a query of special-status species and habitats databases was conducted, including the USFWS species records (USFWS 2021a), California Department of Fish and Wildlife (CDFW) California Natural Diversity Database (CNDDDB; CDFW 2021), Calflora database (Calflora 2020), SanBIOS and California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2021). Any recorded locations of species, habitat types, wetlands, and other resources were mapped and overlain onto aerial imagery using Geographic Information Systems (GIS).

General Biological Survey

A general biological resource survey was conducted on February 25, 2021, by HELIX biologist Mandy Mathews, which entailed verification of existing biological resources within a study area generally defined by the potential impact area for the lift station expansion and approximately 100 feet beyond. The survey was conducted on foot, with the aid of binoculars, and included general mapping of vegetation communities, assessing the suitability of habitat for sensitive species, preliminarily identifying jurisdictional water and wetlands, if present, and noting plant and wildlife species observed.

Rare Plant Survey

Two rare plant surveys were conducted on March 16, 2021 and May 20, 2021, by HELIX biologist Ryan Fitch, which entailed searching for and mapping any sensitive plant species within the project footprint. The surveys were conducted on foot, and included mapping of sensitive plant species, if present.

Survey Limitations

Noted animal species were identified by direct observation, vocalizations, or the observance of scat, tracks, or other signs. However, the lists of species identified are not necessarily comprehensive accounts of all species that utilize the study area, as species that are nocturnal, secretive, or seasonally restricted may not have been observed. Those species that are of special-status and have potential to occur in the study area; however, are still addressed in this report.

Nomenclature

Nomenclature for this report is taken from Holland (1986) and Oberbauer (2008) for vegetation communities; Baldwin et al. (2012) for plants; North American Butterfly Association (2021) for butterflies; Society for the Study of Amphibians and Reptiles (2021) for reptiles and amphibians; American Ornithological Society (2021) for birds; and Bradley et al. (2014) for mammals. Plant species status is from the CNPS Rare Plant Inventory (2021a) and CDFW (2021b). Animal species status is from the CDFW (2021c).

EXISTING CONDITIONS

Topography and Soils

Elevations in the study area range from approximately 340 to 350 feet above mean sea level (amsl). The survey area generally consists of a flat area between an abandoned portion of Cottonwood Golf Club and residential development.

Two soil types have been mapped in the survey area: Vista coarse sandy loam, 9 to 15 percent slopes, and Visalia sandy loam, 2 to 5 percent slopes.

Vegetation Communities

The study area supports three vegetation communities: Diegan coastal sage scrub, disturbed habitat, and urban/developed land (Figure 4). The numeric codes in parentheses following each community/habitat type name are taken from the Holland (Holland 1986) and Oberbauer (2008) classification systems.

Diegan Coastal Sage Scrub (32500)

Coastal sage scrub is one of the two major shrub types that occur in southern California, occupying xeric sites characterized by shallow soils (the other is chaparral). Four distinct coastal sage scrub geographical associations (northern, central, Venturan, and Diegan) are recognized along the California coast. Diegan coastal sage scrub typically consists of low-growing, soft woody sub-shrubs, up to one meter in height, that bloom in the winter and early spring. The community commonly occurs on low moisture availability sites characterized by steep xeric slopes or clay-rich soils that have high water retention. Dominants of this community observed on-site consist primarily of California buckwheat (*Eriogonum fasciculatum*), California sagebrush (*Artemisia californica*), and laurel sumac (*Malosma laurina*).

The Diegan coastal sage scrub within the study area is located entirely outside of the project footprint to the south within the SDNWR and is dominated by California buckwheat, California sagebrush, and black sage (*Salvia mellifera*). The Diegan coastal sage scrub within the study area totals 0.3 acre.

Disturbed Habitat (11300)

Disturbed habitat is characterized by areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species, such as ornamentals or ruderal exotic species, that take advantage of disturbance or shows signs of past or present animal uses that removes any capability of providing viable natural habitat for uses other than dispersal (Oberbauer 2008).

The disturbed habitat is on the formerly maintained, but now abandoned, golf course and is dominated by short-pod mustard (*Hirschfeldia incana*), red brome (*Bromus madritensis ssp. rubens*), Russian thistle (*Salsola tragus*), and horehound (*Marrubium vulgare*). The disturbed habitat within the study area occurs to the west of the access road to the existing lift station and encompasses approximately 1.3 acres.

Urban/Developed Land (12000)

Developed land applies to areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and landscaped areas that often require irrigation. Areas where no natural land is evident, due to a large amount of debris or other materials being placed upon it, may also be considered developed (Oberbauer 2008).

The remainder of the study area is urban/developed land consisting of a paved access road and existing lift station and encompasses approximately 1.5 acres.

Plants

A total of 21 plant species were observed within the study area during the general biological survey and focused species surveys, of which 11 (52 percent) are non-native species (Attachment A, *Plant Species Observed*). The predominance of non-native species is indicative of the high degree of disturbance as a result of historical and current uses of the study area.

Animals

A total of 23 animal species were observed/detected within the study area during the general biological survey and focused species surveys: 20 bird species and three mammal species (Attachment B; *Animal Species Observed or Detected*).

Sensitive Resources

Sensitive Vegetation Communities/Habitats

Sensitive vegetation communities/habitat types are defined as land that supports unique vegetation communities or the habitats of rare or endangered species or subspecies of animals or plants as defined by Section 15380 of the State CEQA Guidelines.

The CDFW evaluates the rarity of natural communities using the NatureServe's Heritage Methodology (Faber-Langendoen et. al 2012), in which communities are given a G (global) and S (State) rank based on their degree of imperilment (as measured by rarity, trends, and threats). Communities are assigned an overall rank of 1 through 5, with 1 being considered very rare and threatened, and 5 being considered demonstrably secure. Communities with a Rarity Ranking of S1 (critically imperiled), S2 (imperiled), or S3 (vulnerable) are considered sensitive by the CDFW.

One sensitive vegetation communities or habitats occur within the study area: Diegan coastal sage scrub. This vegetation community, however, occurs entirely outside of the project footprint.

Special Status Plant Species

Special status plant species have been afforded special-status and/or recognition by the USFWS and/or CDFW. They may also be included in the CNPS' Inventory of Rare and Endangered Plants. Their status is often based on one or more of three distributional attributes: geographic range, habitat specificity, and/or population size. Sensitive species are those considered unusual or limited in that they are: (1) only found in the region; (2) a local representative of a species or association of species not otherwise found in the region; or (3) severely depleted within their ranges or within the region. One sensitive plant species was observed within the study area, including immediately adjacent to the project footprint: San Diego ambrosia (Figure 4).

San Diego ambrosia (*Ambrosia pumila*)

Listing: FE/--; CNPS List 1B.1

Distribution: Coastal San Diego and western Riverside Counties; Baja California, Mexico. Known in CA from fewer than 20 occurrences.

Habitat: Found in a variety of habitats, including sage scrub, grasslands, wetlands, disturbed habitat, and sloped areas. Reiser (2001) states that preferred habitats are in creek beds, seasonally dry drainages, and floodplains, and the Federal Registry announcement for this species states that it is found in grasslands and valley bottoms. It is likely a function of soil and moisture rather than a specific habitat that determines the species' territory. Flowers from May through October.

Status on site: This species was observed within the abandoned portion of Cottonwood Golf Club and within SDNWR along the south side of the study area. Ten individuals were observed immediately adjacent to the chain-link fence, and a minimum of two hundred individuals were observed further south within SDNWR.

Sensitive Plant Species with Potential to Occur

No additional sensitive plant species have a potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the study area.

Special Status Animal Species

Special status animal species include those that have been afforded special-status and/or recognition by the USFWS and/or CDFW. In general, the principal reason an individual taxon (species or subspecies) is given such recognition is the documented or perceived decline or limitations of its population size or geographical extent and/or distribution, resulting in most cases from habitat loss.

One special-status animal species was observed within or adjacent to the study area during the 2021 biological surveys and is discussed further below: Cooper's hawk (*Accipiter cooperii*).

Cooper's hawk (*Accipiter cooperii*)

Status: --/WL

Distribution: Occurs year-round throughout San Diego County's coastal slope where stands of trees are present

Habitat(s): Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests

Status on site: One individual was detected within suitable nesting trees within the abandoned portion of Cottonwood Golf Club west of the project footprint.

Sensitive Animal Species with Potential to Occur

One additional sensitive animal species has a high potential to occur: coastal California gnatcatcher. Coastal California gnatcatcher, a federally threatened and CDFW Species of Special Concern, has been reported within coastal sage scrub immediately south of the project footprint. Although the proposed critical habitat for the Hermes copper butterfly occurs south of the project footprint, the project footprint and immediate surrounding areas lack suitable habitat for this species. No other species have a high potential to occur based on geographic range, elevation range, and/or lack of suitable habitat in the study area.

Nesting Birds

Trees and shrubs both within and adjacent to the study area could provide suitable nesting habitat for numerous bird species known to the region.

Raptor Foraging

Three raptor species were observed during the general biological survey: Cooper's hawk, red-tailed hawk (*Buteo jamaicensis*), and red-shouldered hawk (*Buteo lineatus*). Additionally, several other species have the potential to forage in the project vicinity. The study area provides moderate-quality raptor habitat due to the disturbed nature of the former recreational area, residential, and transportation uses. Extensive raptor foraging habitat occurs off-site in the project vicinity within undeveloped areas to the north of the project.

Wildlife Corridor/Core Wildlife Areas

Wildlife corridors connect otherwise isolated pieces of habitat and allow movement or dispersal of plants and animals. Wildlife corridors can be local or regional in scale and may function in different ways, depending on species and time of year. Wildlife corridors represent areas where wildlife movement is concentrated due to natural or manufactured constraints. Local corridors provide access to

resources such as food, water, and shelter. Animals can use these corridors, such as hillsides and tributary drainages to main drainages, to travel among different habitats (i.e., riparian and upland habitats). Some animals require riparian habitat for breeding and upland habitat for burrowing. Regional corridors provide these functions and also link two or more large areas of open space. Regional corridors also provide avenues for wildlife dispersal, migration, and contact between otherwise distinct populations.

The project is not located within any linkages recognized by the South Coast Missing Linkages report (South Coast Wildlands 2008) or MSCP. The study area does not by itself function as nor does it contribute to any local or regional wildlife corridors or linkages. It is also not contained within or connected to any local or regional core resource areas. The majority of the study area and project features occur within developed recreational areas and roadways/public right-of-way (ROW). A patch of Diegan coastal sage scrub habitat occurs along the southern edge of the study area and connects to a larger undisturbed area of Diegan coastal sage scrub; however, this patch of habitat is located entirely outside of the project footprint. As such, the habitat would not function as a wildlife corridor or core wildlife area, although it may function as a stopover site for migrating bird species.

REGULATORY FRAMEWORK

Biological resources in the project footprint are subject to regulatory review by federal, State, and local agencies. Under CEQA, impacts associated with a proposed project are assessed with regard to significance criteria determined by the CEQA Lead Agency (in this case, OWD) pursuant to CEQA Guidelines. Biological resources-related laws and regulations that apply to the project analysis include the Federal Endangered Species Act (FESA), Migratory Bird Treaty Act (MBTA), CWA, CEQA, California Endangered Species Act (CESA), and CFG Code.

Federal

Federal Endangered Species Act

Administered by the USFWS, the federal ESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being endangered or threatened with extinction. Actions that jeopardize endangered or threatened species and the habitats upon which they rely are considered take under the ESA. Section 9(a) of the ESA defines take as “to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” “Harm” and “harass” are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species’ behavioral patterns.

Sections 7 and 4(d) of the Federal ESA regulate actions that could jeopardize endangered or threatened species. Section 7, administered by the USFWS, describes a process of Federal interagency consultation for use when Federal actions may adversely affect listed species. A Section 7 Consultation (formal or informal) is required when there is a nexus between a listed species’ use of a site and if the project is funded (wholly or in part) by federal funding. A biological assessment is required for any major construction activity, if it may affect any listed species. Take can be authorized via a letter of Biological Opinion, issued by the USFWS, for non-marine related listed species issues.

Identified by the USFWS, critical habitat is defined as areas of land that are considered necessary for endangered or threatened species to recover. The ultimate goal is to restore healthy populations of listed species within their native habitat so that they can be removed from the list of threatened or endangered species. Once an area is designated as critical habitat pursuant to the federal ESA, all federal agencies must consult with the USFWS to ensure that any action they authorize, fund, or carry out is not likely to result in the destruction or adverse modification of the critical habitat.

Migratory Bird Treaty Act

All migratory bird species that are native to the United States or its territories are protected under the federal MBTA, as amended under the Migratory Bird Treaty Reform Act of 2004 (FR Doc. 05-5127). The MBTA is generally protective of migratory birds but does not actually stipulate the type of protection required. In common practice, the MBTA is used to place restrictions on the disturbance of active bird nests during the nesting season (generally February 1 to August 31). In addition, the USFWS commonly places restrictions on disturbances allowed near active raptor nests.

State Regulations

California Environmental Quality Act

Primary environmental legislation in California is found in CEQA and its implementing guidelines (State CEQA Guidelines), which require that projects with potential adverse effects (i.e., impacts) on the environment undergo environmental review. Adverse environmental impacts are typically mitigated as a result of the environmental review process in accordance with existing laws and regulations.

California Endangered Species Act

The CESA established that it is state policy to conserve, protect, restore, and enhance state endangered species and their habitats. Under state law, plant and animal species may be formally designated as rare, threatened, or endangered by official listing by the California Fish and Game Commission. The CESA authorizes that private entities may “take” plant or wildlife species listed as endangered or threatened under the FESA and CESA, pursuant to a federal Incidental Take Permit if the CDFW certifies that the incidental take is consistent with CESA (CFG Code Section 2080.1[a]). For state-only listed species, Section 2081 of CFG Code authorizes the CDFW to issue an Incidental Take Permit for state listed threatened and endangered species if specific criteria are met.

Native Plant Protection Act

Sections 1900–1913 of the CFG Code (Native Plant Protection Act; NPPA) direct the CDFW to carry out the state legislature’s intent to “...preserve, protect, and enhance endangered or rare native plants of this state.” The NPPA gives the California Fish and Game Commission the power to designate native plants as “endangered” or “rare” and protect endangered and rare plants from take.

California Fish and Game Code

The CFG Code provides specific protection and listing for several types of biological resources. Section 1600 of CFG Code requires a Streambed Alteration Agreement (SAA) for any activity that would

alter the flow, change, or use any material from the bed, channel, or bank of any perennial, intermittent, or ephemeral river, stream, and/or lake. Typical activities that require an SAA include excavation or fill placed within a channel, vegetation clearing, structures for diversion of water, installation of culverts and bridge supports, cofferdams for construction dewatering, and bank reinforcement. Notification is required prior to any such activities.

Pursuant to CFG Code Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Raptors and owls and their active nests are protected by CFG Code Section 3503.5, which states that it is unlawful to take, possess, or destroy any birds of prey or to take, possess, or destroy the nest or eggs of any such bird unless authorized by the CDFW. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA. These regulations could require that construction activities (particularly vegetation removal or construction near nests) be reduced or eliminated during critical phases of the nesting cycle unless surveys by a qualified biologist demonstrate that nests, eggs, or nesting birds will not be disturbed, subject to approval by CDFW and/or USFWS.

SIGNIFICANCE OF PROJECT IMPACTS AND PROPOSED MITIGATION

This section describes potential direct and indirect impacts associated with the proposed project. Direct impacts immediately alter the affected biological resources, such that those resources are eliminated temporarily or permanently. Lift station expansion would result in permanent impacts.

Criteria for Determining Impact Significance

The significance of impacts to biological resources present, or those with potential to occur, was determined based upon the sensitivity of the resource and the extent of the anticipated impacts. For certain highly sensitive resources (e.g., a federally listed species), any impact would be significant. Conversely, other resources that are of low sensitivity (e.g., species with a large, locally stable population in the County but declining elsewhere) could sustain some impact with a less than significant effect.

According to Appendix F of the CEQA Guidelines, project impacts to biological resources would be considered significant if they would:

- (a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS.
- (b) Have a substantial adverse effect on any riparian habitat or sensitive natural community identified by local or regional plans, policies, regulations or by CDFW or USFWS.
- (c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling hydrological interruption, or other means.

- (d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species, or with an established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
- (e) Conflict with local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
- (f) Conflict with provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

Issue 1: Special-Status Species

Would the project 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 CDFW or USFWS?

Impact Analysis

Special-Status Plant Species

If avoidance measures are not in place, the project could result in significant direct impacts to one special-status plant species during construction, as detailed further below.

Direct impacts to San Diego ambrosia are not authorized, nor are they expected, as the project impact areas are restricted to existing disturbed and/or developed lands. If not properly flagged for avoidance, approximately ten individual San Diego ambrosia located immediately adjacent to planned work areas have the potential to be impacted during construction. This species occurs within the fence line separating the project footprint from the adjacent open space, and are not expected to be affected due to their location outside of potential work areas. There are numerous documented occurrences of these species throughout the surrounding area, indicating that the study area does not represent a geographically significant population. As no direct impacts are anticipated, no mitigation is required. However, if project work limits are exceeded and additional inadvertent impacts occur, the project could result in potentially significant impacts. The project incorporates the following project design feature (PDF) to ensure that no impacts to special-status plant species would occur as a result of project activities:

- PDF-BIO-1 A qualified biologist will conduct a pre-construction environmental training session for construction personnel to inform them of the sensitive biological resources, including special-status species, in the local area and the avoidance measures in place to remain in compliance. The biologist will periodically monitor construction activities to help ensure that project activities occur within the approved project limits and in compliance with required environmental conditions. The biologist will identify and flag San Diego ambrosia occurring within the project work area for avoidance.

Special-Status Animal Species

If avoidance measures are not in place, the project could result in significant direct and/or indirect impacts to several special-status bird species during construction, as detailed further below.

Direct impacts to the coastal California gnatcatcher are not authorized nor are they expected due to the fact that no direct impacts will occur to suitable habitat for this species; however, this species has the potential to nest off-site, within 500 feet of project construction. Indirect impacts are also not authorized. If avoidance measures are not in place, then project construction could result in potential significant noise-related indirect impacts on the coastal California gnatcatcher, if breeding individuals become displaced from their nests and fail to breed. The project incorporates the PDF below to ensure that potential indirect impacts on the coastal California gnatcatcher are avoided:

PDF-BIO-2 The following project requirements regarding the coastal California gnatcatcher shall be shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur between February 15 and August 30, the breeding season of the coastal California gnatcatcher, until the following requirements have been met to the satisfaction of OWD:

- (A) A qualified biologist (possessing a valid endangered species act section 10(a)(1)(A) Recovery Permit) shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 decibels [dB(A)] hourly average for the presence of coastal California gnatcatcher. A single pre-construction survey for the coastal California gnatcatcher shall be conducted within three days prior to the commencement of any construction. If gnatcatchers are present, then the following conditions must be met:

Between February 15 and August 30, no clearing, grubbing, or grading of occupied gnatcatcher habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; and

Between February 15 and August 30, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied gnatcatcher habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed by a qualified acoustician (possessing current noise engineer license of registration with monitoring noise level experience with listed animal species) and approved by OWD at least two weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average at the edge of habitat occupied by the coastal California gnatcatcher. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16).

*Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. If not, other measures shall be implemented in consultation with the biologist and OWD, as necessary, to reduce noise levels to below 60 dB(A) hourly average, or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

(B) If coastal California gnatcatcher are not detected during the pre-construction survey, the qualified biologist shall submit substantial evidence to OWD and applicable resource agencies, which demonstrates whether or not mitigation measure such as noise walls are necessary between February 15 and August 30 as follows:

- (1) If this evidence indicated the potential is high for coastal California gnatcatcher to be present based on historical records or site conditions, then condition A(3) shall be adhered to as specified above.
- (2) If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

Cooper's hawk, another State Watch List species was also detected immediately adjacent to the study area. If avoidance measures are not in place, then project construction could result in potential significant direct impact and noise-related indirect impacts to special-status bird species, including tree-nesting raptors. The project is required to comply with the regulations and guidelines of the MBTA and CFG Code. As such, the project must ensure no direct or indirect impacts to nesting birds and tree-nesting raptors, including Cooper's hawk. The project incorporates the following PDF to ensure that no indirect impacts occur to nesting birds and tree-nesting raptors during project construction:

PDF-BIO-3 Trimming, grubbing, and clearing of vegetation shall be avoided during the general avian breeding season (January 15 to July 15 for raptors; February 15 to August 31 for other avian species) to the extent feasible. If trimming, grubbing, or clearing of vegetation is proposed to occur during the general avian breeding season, a pre-construction survey shall be conducted by a qualified biologist no more than seven days prior to vegetation clearing to determine if active bird nests are present in the affected areas. If there are no nesting birds (includes nest building or other breeding/nesting behavior) within this area, trimming, grubbing, and clearing of vegetation shall be allowed to proceed. If active bird nests are confirmed to be present during the pre-construction survey, a buffer zone will be established by the biologist. Construction activities shall avoid any active nests until a qualified biologist has verified that the young have fledged, or the nest has otherwise become inactive.

Mitigation Measures

Implementation of the above PDFs would ensure project consistency with the protection of any species identified as a candidate, sensitive, or special-status species. No mitigation is required.

Conclusion

Project implementation could result in significant impacts to nesting birds and raptors, including special-status avian species (i.e., coastal California gnatcatcher and Cooper's hawk), with the potential to nest within or adjacent to the project footprint. Implementation of the PDFs detailed above would ensure that potential impacts are avoided by the project.

Issue 2: Riparian Habitat and Sensitive Natural Communities

Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, and regulations or by the CDFW or USFWS?

Impact Analysis

The proposed project would not result in impacts to riparian habitat or sensitive natural communities. The proposed project would impact 0.2 acre of disturbed habitat and 0.2 acre of developed land, neither of which are considered sensitive habitat or sensitive natural communities. Diegan coastal sage scrub, a sensitive natural community, is located approximately 20 feet south of the project footprint and is separated from the project footprint by a physical barrier (fencing).

Mitigation Measures

No mitigation is required.

Conclusion

The project would not result in impacts to sensitive natural communities.

Issue 3: Jurisdictional Wetlands and Waterways

Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the federal CWA (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact Analysis

The proposed project would not result in impacts to jurisdictional wetlands or waterways.

Mitigation Measures

No mitigation is required.

Conclusion

The project would not result in impacts to jurisdictional wetlands or waterways.

Issue 4: Wildlife Movement and Nursery Sites

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory corridors, or impede the use of native wildlife nursery sites?

Impact Analysis

The project footprint does not by itself represent, nor does it contribute to any known wildlife corridors, linkages, or wildlife nursery sites. The project is sited within existing disturbed and developed land that is subject to maintenance. The expansion of the lift station would not act as major impediments to wildlife movement, including access to nursery sites, foraging habitat, breeding habitat, water sources, or other areas necessary for their life history. Higher quality habitat that functions as a wildlife movement corridor occurs south of the project footprint. The project avoids, and is set back from, the habitat, with the closest project elements separated from the habitat by existing barriers (i.e., fences). As the project developments have been sited within existing disturbed and developed areas, the potential impact on wildlife movement and nursery sites would be less than significant, and no additional mitigation is required.

Mitigation Measures

No mitigation is required.

Conclusion

Project implementation would not result in significant impacts on wildlife movement and nursery sites. Less than significant impacts would occur, and mitigation is not required.

Issue 5: Local Policies and Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact Analysis

No local policies or ordinances pertaining to biological resources are applicable to the project. The project would primarily occur within the existing disturbed areas and public road rights-of-way. No impact or conflict would occur.

Mitigation Measures

No mitigation is required.

Conclusion

The project would not conflict with local policies or ordinances protecting biology resources and mitigation is not required.

Issue 6: Adopted Conservation Plans

Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Issue 6 Impact Analysis

OWD is not a participating entity in any adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan; therefore, no impacts would occur to any such plans. No conflict with an adopted plan would occur.

Mitigation Measures

No mitigation required.

Conclusion

The project would not conflict with any adopted plan and mitigation is not required.

FEDERAL CONFORMANCE ANALYSIS FOR BIOLOGICAL RESOURCES ISSUES

Issue 1: Federal Endangered Species Act, Section 7

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may affect federally listed threatened or endangered species or their critical habitat that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

The project footprint is situated mainly on disturbed and developed land and located outside any recognized wildlife corridor or linkage. The southern portion of the project footprint overlaps with critical habitat for San Diego ambrosia. Approximately 10 San Diego ambrosia individuals are located adjacent to the project footprint along the chain-link fence that separates the project footprint from the abandoned portion of the Cottonwood Golf Club and SDNWR. Critical habitat for coastal California gnatcatcher and proposed critical habitat for Hermes copper butterfly are located south of the project footprint.

The project as proposed occurs approximately 100 feet from suitable habitat for the federally-listed coastal California gnatcatcher. No impacts or take of coastal California gnatcatcher, or suitable habitat, are proposed, and none are authorized without additional consultation with the USFWS and CDFW.

Further discussion is provided below regarding the potential effects of the proposed action on federally-listed species.

Federally-Listed Plant Species. One federally-listed endangered (FE) plant species, San Diego ambrosia, occurs adjacent to the project footprint.

As discussed above, the project would not affect San Diego ambrosia, suitable habitat, or critical habitat for this species. Although no effect is anticipated, the implementation of PDF-BIO-1 described above would further ensure that no effect on this species occurs.

Federally-Listed Animal Species. One federally-listed threatened (FT) animal species is known to occur in the vicinity of the study area: coastal California gnatcatcher.

As discussed above, the project would not affect the coastal California gnatcatcher, suitable habitat, or critical habitat for this species. Although no effect is anticipated, the implementation of PDF-BIO-2 and PDF-BIO-3 described above would further ensure that no effect on this species occurs.

Mitigation Measures

The implementation of PDF-BIO-1, PDF-BIO-2, and PDF-BIO-3 described above would ensure project consistency with the protection of any federally listed species or the respective critical habitats; therefore, the project would be in conformance with the ESA. No mitigation is required.

Conclusion

If unmitigated, project implementation may affect federally listed species; however, implementation of the project design features described above would ensure that the project has no effect, and no mitigation is required.

Issue 2: Magnuson-Stevens Fishery Conservation And Management Act, Essential Fish Habitat

Does the project involve any direct effects from construction activities, or indirect effects such as growth inducement that may adversely affect essential fish habitat?

The project lacks marine resources and Essential Fish Habitat regulated under the Magnuson-Stevens Fishery Conservation and Management Act. No Essential Fish Habitat occurs in the immediate vicinity of the study area. Therefore, the project would not affect Essential Fish Habitat and would be in conformance with the Magnuson-Stevens Fishery Conservation and Management Act.

Mitigation Measures

No mitigation is required.

Conclusion

The project would have no direct or indirect effect on essential fish habitat, and no mitigation is required.

Issue 3: Coastal Zone Management Act

Is any portion of the project site located within the coastal zone?

The study area is not located within the Coastal Zone. No coastal habitat occurs in the immediate vicinity of the study area. Therefore, the project would not affect any areas designated as Coastal Zone and would be in conformance with the Coastal Zone Management Act.

Mitigation Measures

No mitigation is required.

Conclusion

The project would have no direct or indirect effect on areas designated as Coastal Zone, and no mitigation is required.

Issue 4: Migratory Bird Treaty Act

Will the project affect protected migratory birds that are known, or have a potential, to occur on site, in the surrounding area, or in the service area?

Construction of the proposed project may result in the removal or trimming of trees and other vegetation during the general bird nesting season (January 15 through September 15) and, therefore, would have the potential to adversely affect nesting birds protected under the MBTA. Implementation of project design features described above would ensure the appropriate pre-construction surveys and avoidance measures are completed to prevent adverse effects on nesting birds.

Mitigation Measures

The implementation of PDF-BIO-3 described above would ensure project consistency with the protection of migratory birds; therefore, the project would be in conformance with the MBTA. No mitigation is required.

Conclusion

With the implementation of PDF-BIO-3 described above, the project would result in no effect on migratory birds and would be in conformance with the MBTA, and no mitigation is required.

Issue 5: Protection of Wetlands

Does any portion of the project boundaries contain areas that should be evaluated for wetland delineation or require a permit from the United States Army Corps of Engineers?

No wetland habitat is located within or adjacent to the study area. Therefore, the project would not affect wetlands and would not require a permit from the USACE.

Mitigation Measures

No mitigation is required.

Conclusion

The project would have no direct or indirect effect on areas subject to a permit from the USACE, and no mitigation is required.

Issue 6: Wild and Scenic River Act

Is any portion of the project located within a wild and scenic river?

None of the proposed project components are planned on or in the immediate vicinity of areas designated as Wild and Scenic River. Therefore, the proposed project would not affect any areas designated as Wild and Scenic River and would be in conformance with the Wild and Scenic Rivers Act.

Mitigation Measures

No mitigation is required.

Conclusion

The project would have no direct or indirect effect on areas subject to the Wild and Scenic River Act, and no mitigation is required.

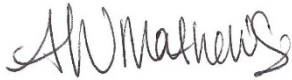
CONCLUSION

OWD's planned project activities would result in no impacts or less than significant impacts on special status plant species, sensitive natural communities/sensitive habitat types, federally protected wetlands and other waters, wildlife corridors and nursery sites, local policies and ordinances, and regional conservation plans. The project activities would further have no effect on federally listed plants, federally designated critical habitat, essential fish habitat, coastal resources, federally protected wetlands, and wild and scenic areas.

If avoidance measures are not in place, the maintenance activities could result in potential significant impacts and adverse effects on special-status plant species and special-status bird species, including federally listed species and species protected under the MBTA. These potential impacts would be avoided and minimized through the implementation of project design features that are fundamental components and requirements of the project. OWD agrees to commit to the implementation of these design features prior to and during planned maintenance activities to avoid and minimize impacts.

I certify that the information in this report and enclosures are correct and accurately represent my work. Please do not hesitate to contact me or Beth Martinez at (619) 462-1515 if you have any questions or require further assistance.

Sincerely,



Mandy Mathews
Biologist

Attachments

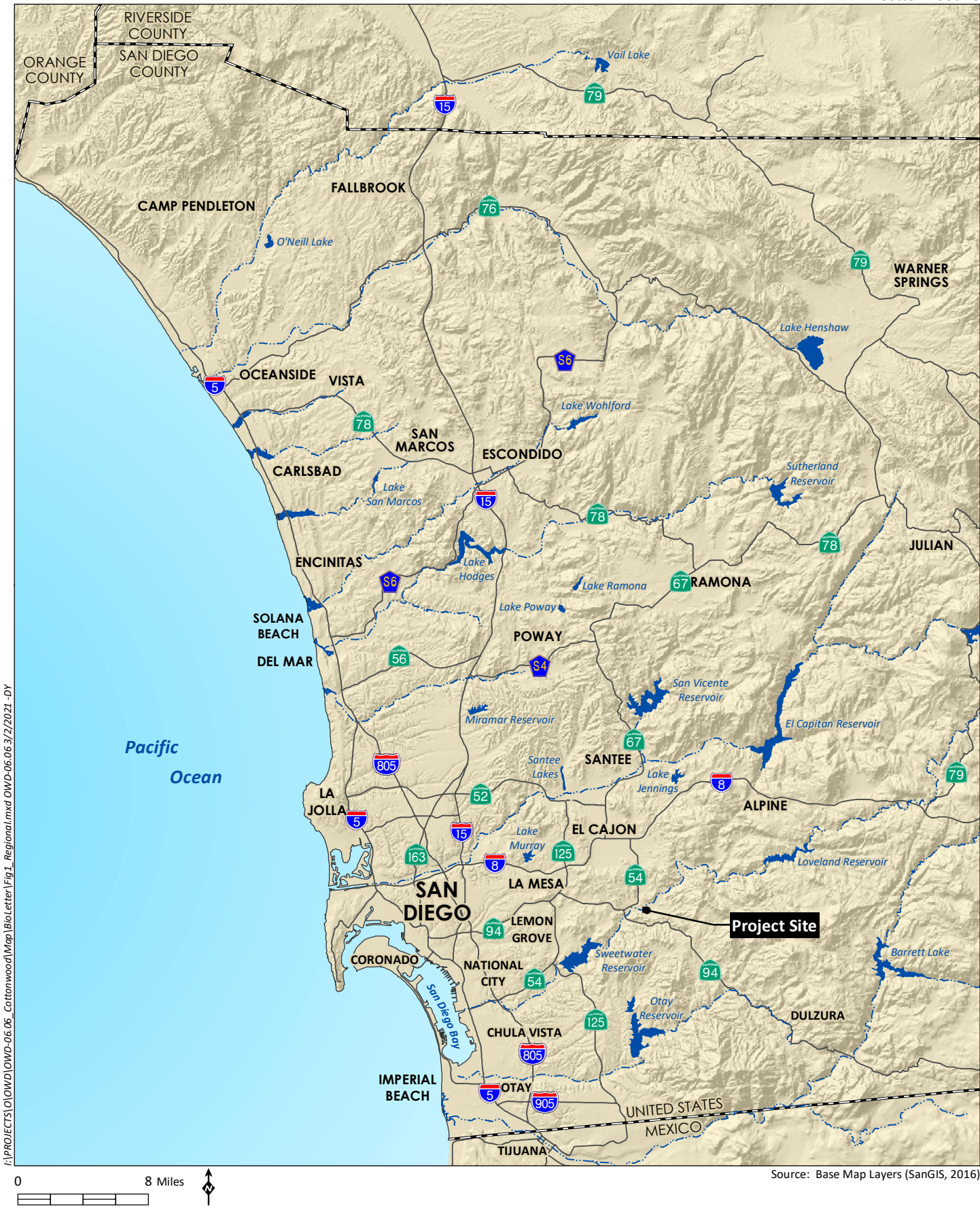
Figure 1: Regional Location
Figure 2: USGS Topography
Figure 3: Aerial Photograph
Figure 4: Vegetation Communities and Sensitive Resources
Attachment A: Plant Species Observed
Attachment B: Animal Species Observed or Detected

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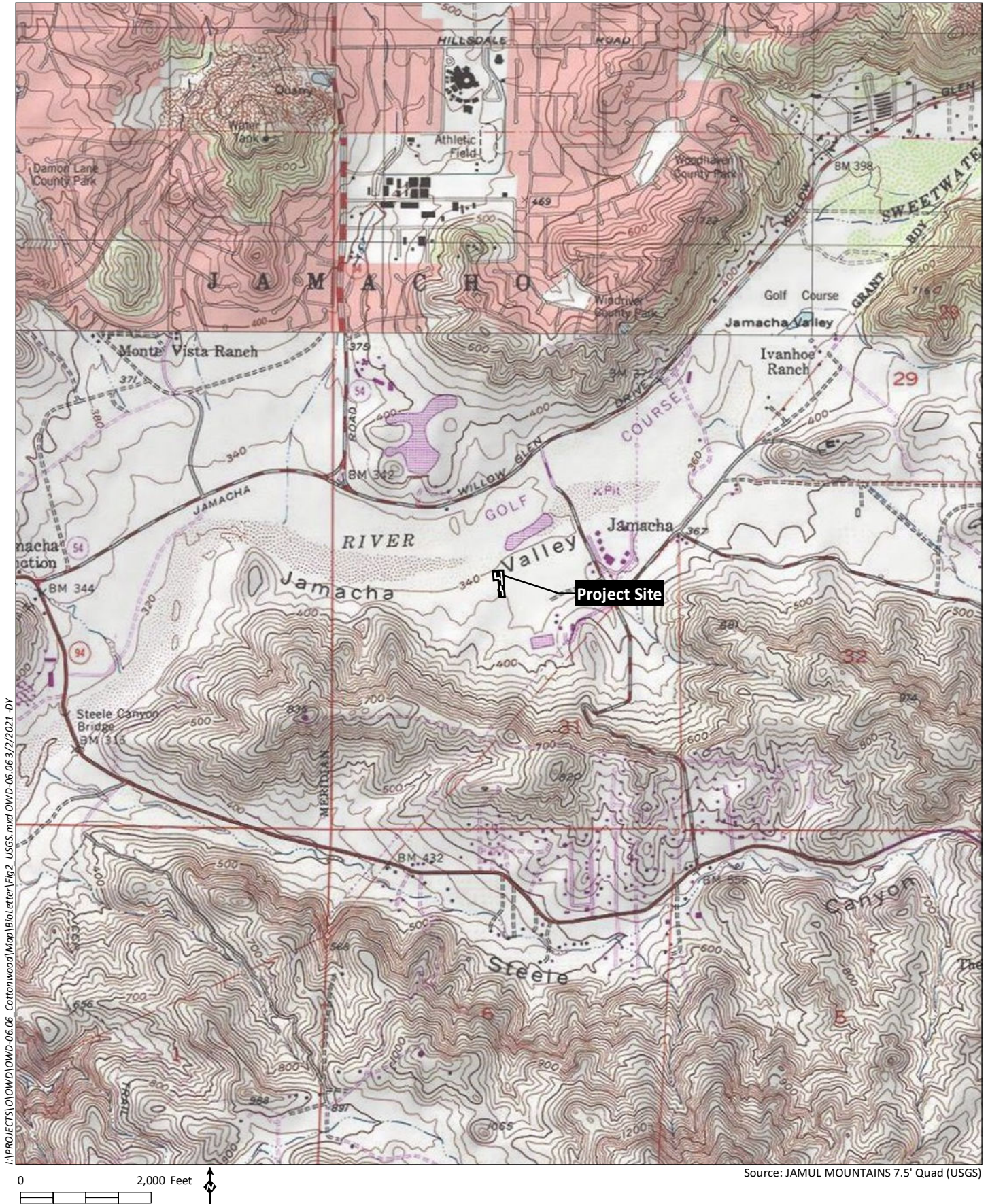
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Figures



Regional Location

Figure 1



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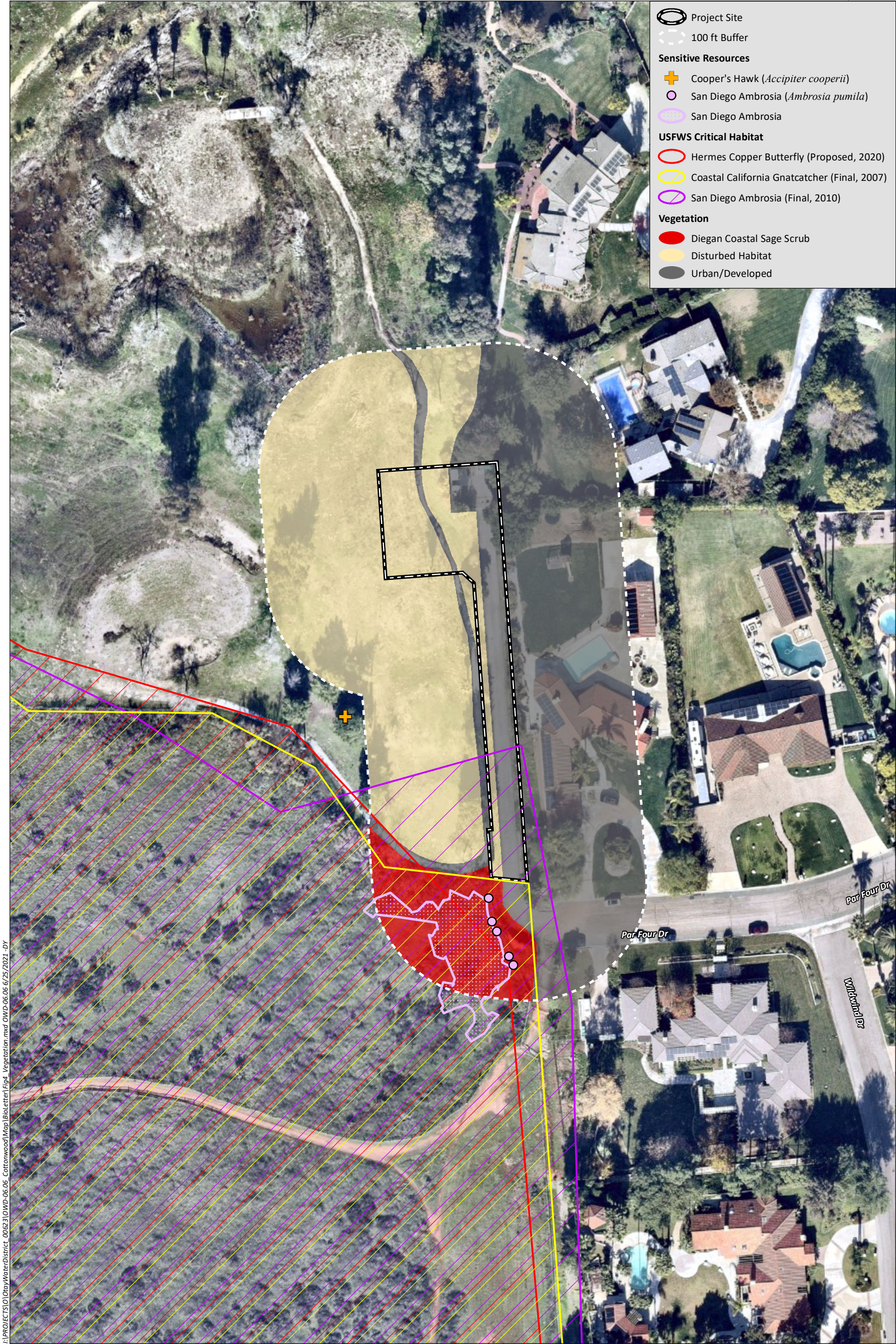
Source: JAMUL MOUNTAINS 7.5' Quad (USGS)



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0 100 Feet

Source: Aerial (SanGIS, 2020)



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Attachment A

Plant Species Observed

Attachment A

Plant Species Observed

Family	Scientific Name	Common Name
Eudicots		
Asteraceae	<i>Ambrosia psilostachya</i>	western ragweed
	<i>Ambrosia pumila</i> †	San Diego ambrosia
	<i>Artemisia californica</i>	California sagebrush
	<i>Baccharis pilularis</i>	coyote brush
	<i>Baccharis sarothroides</i>	broom baccharis
	<i>Isocoma menziesii</i>	goldenbush
	<i>Lactuca serriola</i> *	wild lettuce
Brassicaceae	<i>Hirschfeldia incana</i> *	short-pod mustard
Chenopodiaceae	<i>Salsola tragus</i> *	Russian thistle
Geraniaceae	<i>Erodium cicutarium</i> *	redstem filaree
Lamiaceae	<i>Marrubium vulgare</i>	horehound
	<i>Salvia mellifera</i>	black sage
Pinaceae	<i>Pinus halepensis</i> *	Aleppo pine
Polygonaceae	<i>Eriogonum fasciculatum</i>	buckwheat
Scrophulariaceae	<i>Myoporum acuminatum</i> *	myoporum
Tamaricaceae	<i>Tamarix ramosissima</i> *	saltcedar
Monocots		
Arecaceae	<i>Washingtonia robusta</i> *	Mexican fan palm
Poaceae	<i>Avena</i> sp.*	oats
	<i>Bromus diandrus</i> *	common ripgut grass
	<i>Bromus madritensis</i> *	foxtail chess
	<i>Distichlis spicata</i>	saltgrass

* Non-native species

† Sensitive Species

Attachment B

Animal Species Observed
or Detected

Attachment B

Animal Species Observed or Detected

Taxon		Scientific Name	Common Name
Order	Family		
VERTEBRATES			
Birds			
Accipitriformes	Accipitridae	<i>Accipiter cooperi</i> [†]	Cooper's hawk
		<i>Buteo jamaicensis</i>	red-tailed hawk
		<i>Buteo lineatus</i>	red shouldered hawk
	Cathartidae	<i>Cathartes aura</i>	turkey vulture
Anseriformes	Anatidae	<i>Anas platyrhynchos</i>	mallard
Apodiformes	Trochilidae	<i>Calypte anna</i>	Anna's hummingbird
Columbiformes	Columbidae	<i>Zenaida macroura</i>	mourning dove
Passeriformes	Aegithalidae	<i>Psaltriparus minimus</i>	bushtit
	Corvidae	<i>Corvus brachyrhynchos</i>	American crow
		<i>Haemorhous mexicanus</i>	house finch
	Fringillidae	<i>Spinus psaltria</i>	lesser goldfinch
		<i>Tachycineta bicolor</i>	tree swallow
	Icteridae	<i>Agelaius phoeniceus</i>	red-winged blackbird
		<i>Quiscalus mexicanus</i>	great-tailed grackle
	Parulidae	<i>Setophaga coronate</i>	yellow-rumped warbler
	Passerellidae	<i>Melospiza melodia</i>	song sparrow
	Sittidae	<i>Sitta carolinensis</i>	white-breasted nuthatch
	Sturnidae	<i>Sturnus vulgaris</i>	European starling
Tyrannidae	<i>Sayornis nigricans</i>	black phoebe	
Piciformes	Picidae	<i>Picoides nuttallii</i>	Nuttall's woodpecker
Mammals			
Carnivora	Canidae	<i>Canis latrans</i>	coyote
Lagomorpha	Leporidae	<i>Sylvilagus audubonii</i>	desert cottontail
Rodentia	Geomyidae	<i>Thomomys bottae</i>	Botta's pocket gopher

†Sensitive Species

Initial Study Appendix C

Cultural Resources Study

April 7, 2021

OWD-06.06

Ms. Lisa Coburn-Boyd
Otay Water District
2554 Sweetwater Springs Boulevard
Spring Valley, CA 91978-2096

Subject: Cultural Resources Study for the Cottonwood Sewer Lift Station Replacement Project

Dear Ms. Coburn-Boyd:

HELIX Environmental Planning, Inc. (HELIX) was contracted to conduct a cultural resources study for the proposed Cottonwood Sewer Lift Station Replacement Project (project) in the unincorporated community of Jamul in eastern San Diego County. HELIX conducted a record search, a Sacred Lands File search, and a field survey of the project area. This letter report details the methods and results of the cultural resources study. In summary, no significant cultural resources were identified within the project area and no impacts to historical resources, per the California Environmental Quality Act (CEQA), are anticipated. However, due to the cultural sensitivity of the Sweetwater River valley and the alluvial setting of the project site, a cultural resources monitoring program is recommended for the construction of the project.

PROJECT DESCRIPTION AND LOCATION

The 0.37-acre project site is located in the community of Jamul, south of Interstate (I-) 8, between State Route (SR) 54 to the northwest and SR 94 to the south and southwest (Figure 1, *Regional Location*). The project area is located within Township 16 South, Range 1 East in an unsectioned portion of the Jamacho Land Grant, on the U.S. Geological Survey (USGS) 7.5-minute Jamul Mountains quadrangle map (Figure 2, *USGS Topography*). The project site extends north from the western terminus of Par 4 Drive, approximately 1,500 feet west of Steele Canyon Road, and is partially within an abandoned area of the golf course associated with the Cottonwood Golf Club (Figure 3, *Aerial Photograph*).

Otay Water District (OWD) proposes to replace an existing sewer lift station with a new and expanded sewer lift station on the adjacent property and expand an existing access road that provides access to the lift station. The proposed lift station would have a capacity of between 500 and 600 gallons per minute (gpm) and would replace the existing 400-gpm lift station. The expanded capacity would be to serve anticipated development in the area. In addition to expanding lift station capacity, the project would increase the overall property area to allow for storage and greater functionality (e.g., maintenance trucks being able to turn around).

Construction of the project would require site preparation to clear existing vegetation, excavation for the below-grade portions of the lift station, light grading for the site area surrounding the lift station and for the expanded access road, construction of the lift station structure and site area pad, installation and connection of facilities, paving, and demolition of existing structures. Excavation is currently estimated to result in 1,500 cubic yards of export. Construction staging would occur either within the project site or within adjacent disturbed areas of the abandoned golf course.

METHODS

HELIX obtained a record search of the project area and a half-mile radius from the South Coastal Information Center (SCIC) on February 23, 2021. Reports of previous cultural resources studies covering the project site or adjacent areas, site forms for archaeological and historical resources documented within or adjacent to the project site, and historic maps and aerial photographs were reviewed. A site visit of the project area was conducted by HELIX archaeologist Julie Roy and Bobo Elliot of Jamul Indian Village on February 25, 2021.

The Native American Heritage Commission (NAHC) was contacted for a Sacred Lands File search on February 23, 2021. The NAHC responded on March 8, 2021, indicating that the search results were positive and that the Ewiaapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians should be contacted for more information. A list of tribal contacts from whom additional information can be solicited was provided with the NAHC's response—letters were sent to these contacts on March 23, 2021. The correspondence from the NAHC is included as Attachment A to this letter report.

CULTURAL BACKGROUND

The project area is in the traditional territory of the Kumeyaay people, whose population in San Diego in the late 1700s was estimated to be 20,000. The Kumeyaay lived in semi-sedentary, politically autonomous villages or rancherias. Most rancherias were the seat of a clan, although it is thought that, aboriginally, some clans had more than one rancheria and some rancherias contained more than one clan, often depending on the season within the year (Luomala 1978). Each village was comprised of many households, and groups of villages were part of a larger social system, referred to as a consanguineal kin group (cimul) (Carrico 1998). Campsites and villages were chosen based on proximity to water, boulder outcrops, environmental protection, and availability of plants and animals (Luomala 1978). Consequently, many of the Kumeyaay villages or rancherias were located in river valleys and along the shoreline of coastal estuaries (Bean and Shippek 1978; Carrico 1998; Kroeber 1925 [1976]).

Several major villages were located along the Sweetwater River, including Hamacha (Jamacho) and Metí, located downriver from the project, and Matamo and Sekwan, located upriver from the project (Carrico 2008). Jamacho is documented archaeologically on the northern banks of the Sweetwater River at Jamacha Junction, approximately 0.5 mile to the west (downriver) of the project site (Carrico 2008; Heuett 1979; Shippek 1976). The village is described by Florence Shippek as “a main village area, near junction with Sweetwater, and then scattered groups of houses up and down both sides of valley of river and side canyons such as Steele Canyon” (Shippek 1976). Archaeological investigations undertaken at this location, recorded as CA-SDI-4782 (P-37-004782), yielded evidence of habitation, with over 4,400 artifacts and ecofacts being recovered on the surface or subsurface (Heuett 1979). Occupation of the site dates to AD 1000, but it may have elements dating to 3000 BC (Rosen 1983 in Pignoli et al. 1992).

During the Spanish Period, the priests at Mission San Diego de Alcalá ‘granted’ a portion of the mission’s grazing land in Jamacha Valley to Doña Apolinaria Lorenzana, in order to try to preserve what they could of the lands they perceived as belonging to the mission (Van Wormer 1981). After Mexico declared its independence in 1821, the Mexican government began granting parcels of land to influential individuals in Mexican society. In 1833, Lorenzana applied to the Mexican government for ownership of Jamachá, and in 1840, Rancho Jacome de la Marca, or Jamacha, was granted to her by Governor Juan Alvarado (Van Wormer 1981). In 1841, the new Mexican government reaffirmed the grant, which consisted of 8,881 acres from the eastern borders of Rancho de la Nación east about 8 miles along Sweetwater Valley (Brackett 1951).

American governance in California began in 1848, when Mexico signed the Treaty of Guadalupe Hidalgo, ceding the state to the United States at the end of the Mexican-American War. The discovery of gold in California in 1848, the end of the Civil War in 1865, and the availability of free land through the passage of the Homestead Act all caused an influx of settlers into California and the San Diego region. The Land Act of 1851 established a board of commissioners to review land grant claims, and land patents for the land grants were issued throughout the following years. In 1852, Lorenzana submitted a petition to the Land Commission for Rancho Jamacha (Van Wormer 1981). By this time, the rancho was being used for cattle grazing by American Colonel John Blankhead Magruder, who then purchased the land from Lorenzana in January 1853. Later that same year Magruder sold two-thirds of rancho to Eugene Pendleton, Frank Ames, and Asher Eddy; the four men, along with Robert Kelly, had formed a partnership in 1852 (Van Wormer 1981). Although she was no longer the owner of Rancho Jamacha by this time, Lorenzana received the patent to the rancho on April 11, 1871.

In San Diego County, the 1880s were characterized by “boom and bust” cycles that brought thousands of people to the area. By the end of the decade, many had left, although some remained to form the foundations of small communities based on dry farming, orchards, dairies, and livestock ranching. During the late nineteenth and early twentieth centuries, rural areas of San Diego County developed small agricultural communities, consisting of individuals and families tied together through geographical boundaries, a common schoolhouse, and a church.

While the various ranches and landholders within Jamacha Valley enjoyed decades of successful farming and ranching endeavors, in 1922 the post office in Jamacha closed, and by the early 1930s, much of the land within and surrounding the project vicinity had changed through several owners. A majority of the valley ultimately came under the ownership of the California Water and Telephone Company, which was the successor of the Sweetwater Company, who had taken over the operation of Sweetwater Dam in 1902 (Van Wormer 1981).

The influence of military development, beginning in 1916 and 1917 during World War I, and the need to fight a two-ocean war during World War II resulted in substantial development of infrastructure and industry within the San Diego area to support the military and accommodate soldiers, sailors, and defense industry workers. In the 1950s and 1960s, a population boom and the development of infrastructure, such as freeways and aqueducts, pushed residential development further into the eastern areas of San Diego, including the Jamacha Valley. During this time, the California Water and Telephone Company landholdings were transferred to Cotton Wood Acreage, and in 1970, to the Associated Land Company. However, a small portion of land had been set aside for the Cottonwood Golf Course and was not included in this acquisition. The Associated Land Company envisioned building 6,000 homes in the Jamacha Valley surrounding the golf course (Van Wormer 1981).

In the 1970s, the urban development of Rancho San Diego began, with the first subdivision for a portion of the Rancho San Diego village, Sweetwater Village West, being filed (County of San Diego 1996). By 1979, the remainder of Rancho San Diego, encompassing almost 3,000 acres, was approved for a Specific Plan allowing over 6,300 residential units, shopping centers, and community land uses. By 2000, the population of Rancho San Diego reached over 20,000 people.

RESULTS

A total of 20 previous cultural resources studies have been performed within the half-mile records search radius around the project alignment; of these, eight overlap with the project site (Table 1, *Previous Studies within a Half-Mile of the Project Area*). These reports include three environmental documents (Mooney-Lettieri and Associates 1987; Jacks and Lacy 1990; PRC Toups Corporation 1979), the results of two archaeological investigations (Byrd et al. 1993; Heuett 1979), the results of a data recovery program (Schaefer, Cook, and Palette 1992), a cultural resources survey (Pignuolo, Lauko, and Linton 2005), and a historic resources inventory (Carrico et al. 1990). In addition to the reports on file at the SCIC, an archaeological inventory and assessment and a historic resources evaluation report have been recently prepared for the Cottonwood Sand Mine Project (Reinicke and Mengers 2020; Wilson and Roy 2021). These reports are on file at HELIX and were reviewed for this study.

Table 1
PREVIOUS STUDIES WITHIN A HALF-MILE OF THE PROJECT AREA

Report No. (SD-)	Report Title	Author, Date
00179	An Archaeological Survey: Proposed Willow Glen Drive Sewer Main	Barbolla-Roland and Axford, 1984
00576	Appendix A - Cottonwood Meadows Archaeological Survey Report	Carrico, 1977
01986	APS/SDG&E Interconnection Project Transmission System Environmental Study Phase Two Corridor Studies Cultural Resources: Archaeology Appendices	Wirth Associates, 1974
02175*	Draft Environmental Impact Report for Rancho San Diego Specific Plan	Mooney-Lettieri and Associates, Inc., 1987
02439*	Appendices for Supplemental Draft Environmental Impact Report for Rancho San Diego Tentative Map	Jacks and Lacy, 1990
02591	Cultural Resources Background and Walkover Survey of a Proposed El Cajon/Rancho San Diego Main Post Office, San Diego County	Rasson, 1992
03334	Archaeological Testing at CA-SDI-4763, Locus 2 for the Jamacha Boulevard Improvements Project, El Cajon, San Diego County, California	Robbins-Wade and Whitehouse, 1995
03702	Cultural Resource Survey Report Form for the Ridge at Willow Glen (County PIA-98001) Jamacha Valley, San Diego County, California	Wade and Van Wormer, 1998
03836	Southwest Powerlink Cultural Resources Management Plan	Townsend, 1984
04849	APS/SDG&E Interconnection Project System Environmental Study Phase II Corridor Studies Native American Cultural Resources	Wirth Associates, 1980
05345*	Environmental Impact Report Rancho San Diego Specific Plan San Diego County, California Appendices Volume II	PRC Toups Corporation, 1979
06425*	Historic Resources Inventory Sweetwater Valley	Carrico et al., 1990
08145	Results of Cultural Resource Survey for the Proposed Miguel-Mission 230 KV #2 Project, San Diego County, California	Collett and Cheever, 2002

Report No. (SD-)	Report Title	Author, Date
08620*	Preliminary Archaeological Investigations of W-1146 Spring Valley, California	Heuett, 1979
09827*	Preliminary Report for the Archaeological Data Recovery Program at CA-SDI-4765 Rancho San Diego - Jamacha Village West, San Diego County, California	Schaefer, Cook, and Palette, 1992
10346*	Cultural Resources Survey for the Cottonwood Golf Course Enhancement L-Grade Project, Rancho San Diego, California	Pigniolo, Lauko, and Linton, 2005
10475	Archaeological Survey Results for the Loma Del Sol Project	Berryman, 1986
10478	An Archaeological Reconnaissance of Windmill Farms San Diego County	Schiowitz, 1978
11626	Draft Environmental Assessment for the Proposed Acquisition of Rancho San Diego, Sweetwater II, and Lot 707 Properties from the Resolution Trust Corporation for the Proposed San Diego National Wildlife Refuge Otay-Sweetwater Refuge Unit	U.S. Department of the Interior, 1995
15094*	Multi-Component Archaic and Late Prehistoric Residential Camps Along the Sweetwater River, Rancho San Diego, California	Byrd et al., 1993

* Overlaps project area

The records search results indicated that eight cultural resources have been previously identified within the half-mile radius surrounding the project site, one of which contains the project area (Table 2, *Previously Recorded Resources within a Half Mile of the Project Area*). The project area lies within the southernmost reach of P-37-039116, the Cottonwood Golf Club, which consists of two 18-hole golf courses, associated structures, landscaping, and infrastructure.

First recorded in 2019, construction of the Cottonwood Golf Club began in 1962 with the Lakes Course, formerly known as the Monte Vista Course, on the western side of the property and the Ivanhoe Course on the eastern side; this included channeling the Sweetwater River within the property (Reinicke 2019). The clubhouse, parking lot, maintenance facility, and the Ivanhoe Course were completed by 1964, and the Lakes Course was completed by 1968. Between 1989 and 1993, the Lakes Course was extended to the southwest (Reinicke 2019). This resource was documented and evaluated as part of the proposed Cottonwood Sand Mine Project and was found to be not eligible for the California Register of Historical Resources (CRHR) or San Diego County Local Register of Historic Resources (Reinicke and Mengers 2020).

Table 2
PREVIOUSLY RECORDED RESOURCES WITHIN A HALF MILE OF THE PROJECT AREA

Resource Number (P-37-)	Resource Number (CA-SDI-)	Age and Site Type	Description	Recorder, Date
004761	4761	Multi-component Site	Artifact scatter containing pottery sherds, ground stone fragments, lithic tools and flakes, a rifle cartridge, and a sherd of Majolica San Elizaro Polychrome.	Cupples, 1972
004762	4762	Prehistoric Site	Artifact scatter containing ground stone and lithic artifacts.	Fink, 1972

Resource Number (P-37-)	Resource Number (CA-SDI-)	Age and Site Type	Description	Recorder, Date
004767	4767	Prehistoric Site	Milling station with associated artifact scatter containing lithic and ground stone artifacts.	Cupples, 1972; Schiowitz, 1978
004883	4883	Prehistoric Site	Artifact scatter containing a lithic scatter, a pestle fragment, and a shell.	Corum, Wessel, Pilgram, and Fulmer, 1976
004968	4968	Prehistoric Site	Three bedrock milling complexes with seven slicks	Carrico, 1977
016544		Historic Building	A house and several dilapidated sheds and animal enclosures.	Van Wormer, 1998
039116*		Historic Site	The Cottonwood Golf Club, constructed between 1962 and 1968, and consisting of two 18-hole golf courses, associated structures, landscaping, and infrastructure.	Reinicke, 2019
039117		Historic Building	A single-family residence and associated garage built between 1900 and 1920s.	Reinicke, 2019

* Contains project area

Geologically, the project area is underlain by unconsolidated Holocene alluvial deposits (Tan 2002). The northern half of the project area contains soil from the Visalia series, while the southern half contains soils from the Vista series, which consist of moderately deep, well drained soils that formed from decomposed granite (Natural Resources Conservation Service 2012).

The Sweetwater River is recorded to the north of the project in the 1903 Cuyamaca (1:125,000) topographic map. A few roads are recorded near the project, though none intersect it and there are no structures recorded in the vicinity. The 1943 Jamul (1: 62,500) topographic map shows much the same—SR 94 is shown to the south of the project. No structures are visible within the project area or the area surrounding it in the 1953 historic aerial photograph, though a structure is seen to the south of the project in the 1964 aerial (NETR Online 2021). This structure is recorded on the 1955 Jamul Mountain (1:2400) topographic map; the map also shows Jamacha Road to the north and what would later become Steele Canyon Road to the east. Farmland is visible to the south and east of the project area in the 1964, 1966, 1968, and 1971 aerials; this area appears to have been graded prior to the time the 1980 aerial was taken in preparation of housing development construction (NETR Online 2021). The 1971 and 1975 Jamul Mountains (1:24,000) topographic maps show the development of the surrounding area, as well as the construction of the golf course immediately north and west of the project area.

During the site visit conducted by HELIX and Jamul Indian Village, transects were walked in 5-meter intervals within the project site, which included a paved road and golf course tee off area that is no longer in use (Plates 1 through 4). The project area appeared to be heavily disturbed due to construction of the existing sewer line and lift station, as well as the nearby paved road, residential structures, and golf course (see Plates 1 and 2). Ground visibility within the survey area was good—ranging from 70 to 100 percent, though the presence of grass and dead weeds obscured the ground surface in some places (see Plates 2 and 3). Vegetation in the area consisted of non-native ornamental trees and shrubs, eucalyptus, pine trees, and weeds. Observed soils consisted of orange-brown sand and a yellow-brown fill material with a small amount of gravel within the golf course. No cultural resources were observed.

As noted above, the entirety of the Cottonwood Golf Club, which consists of two 18-hole golf courses, associated structures, landscaping, and infrastructure, has been previously documented as P-37-039116.



Plate 1. Overview of Par Four Drive with existing sewer line. View to the south.



Plate 2. Overview of project area along fence line. View to the north.



Plate 3. Overview of northwestern portion of project area. View to the northwest.



Plate 4. Lift Station at the end of Par Four Drive. View to the north.

As discussed above, the Sacred Lands File search response was received from the NAHC on March 8, 2021 and indicated that the results were positive for the project area and that the Ewiiapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians (Viejas) should be contacted for more information. A list of tribal contacts from whom additional information can be solicited was provided with the NAHC's response—letters were sent to these contacts on March 23, 2021. To date, one response has been received: the Viejas Band of Kumeyaay Indians stated that the area containing the project site has cultural significance or ties to Viejas. Additionally,

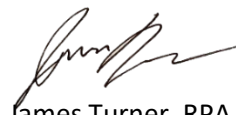
Viejas requested that a Kumeyaay Native American monitor be on site for ground-disturbing activities and to be informed of any discoveries found during construction. During the survey, the Native American monitor stated that due of the sensitivity of the region surrounding the Sweetwater River, and because the original lift station and sewer line may not have been monitored at the time of construction, that the Jamul Indian Village requests cultural resource monitoring to be performed during ground-disturbance activities.

RECOMMENDATIONS

Based, on the results of the field survey, no impacts to cultural resources are expected to result from the proposed project. However, the Sacred Lands File search conducted by the NAHC was returned with positive results and, as shown by the background context and records search results, the project area is sensitive for cultural resources. The project site is also situated within alluvial deposits dating to the Holocene, in which buried cultural deposits may be present.

As such, it is recommended that an archaeological and Native American monitoring program be implemented for the project to ensure no inadvertent impacts occur to unknown subsurface cultural resources. The monitoring program would include attendance by the archaeologist and a Kumeyaay Native American monitor at a preconstruction meeting with the construction contractor and the presence of archaeological and Native American monitors during initial ground-disturbing activities. Both archaeological and Native American monitors would have the authority to temporarily halt or redirect grading and other ground-disturbing activity in the event that cultural resources are encountered. If significant cultural material is encountered, the monitors will coordinate with District staff to develop and implement appropriate mitigation measures. If the excavations for the project are determined to be within disturbed soils with little potential for intact subsurface cultural material to be present, archaeological monitoring would be reduced or ceased. The Native American monitor shall determine the extent of their presence during soil-disturbing activities. If the Native American monitor determines that their presence is not warranted fulltime, their schedule will be adjusted accordingly.

If you have any questions regarding this cultural resources study, please email Stacie Wilson at staciew@helixepi.com or call her at (619) 462-1515.



James Turner, RPA
Archaeologist



Stacie Wilson, RPA
Senior Archaeologist

Attachments:

Figure 1: Regional Location

Figure 2: USGS Topography

Figure 3: Aerial Photograph

Attachment A: NAHC Correspondence

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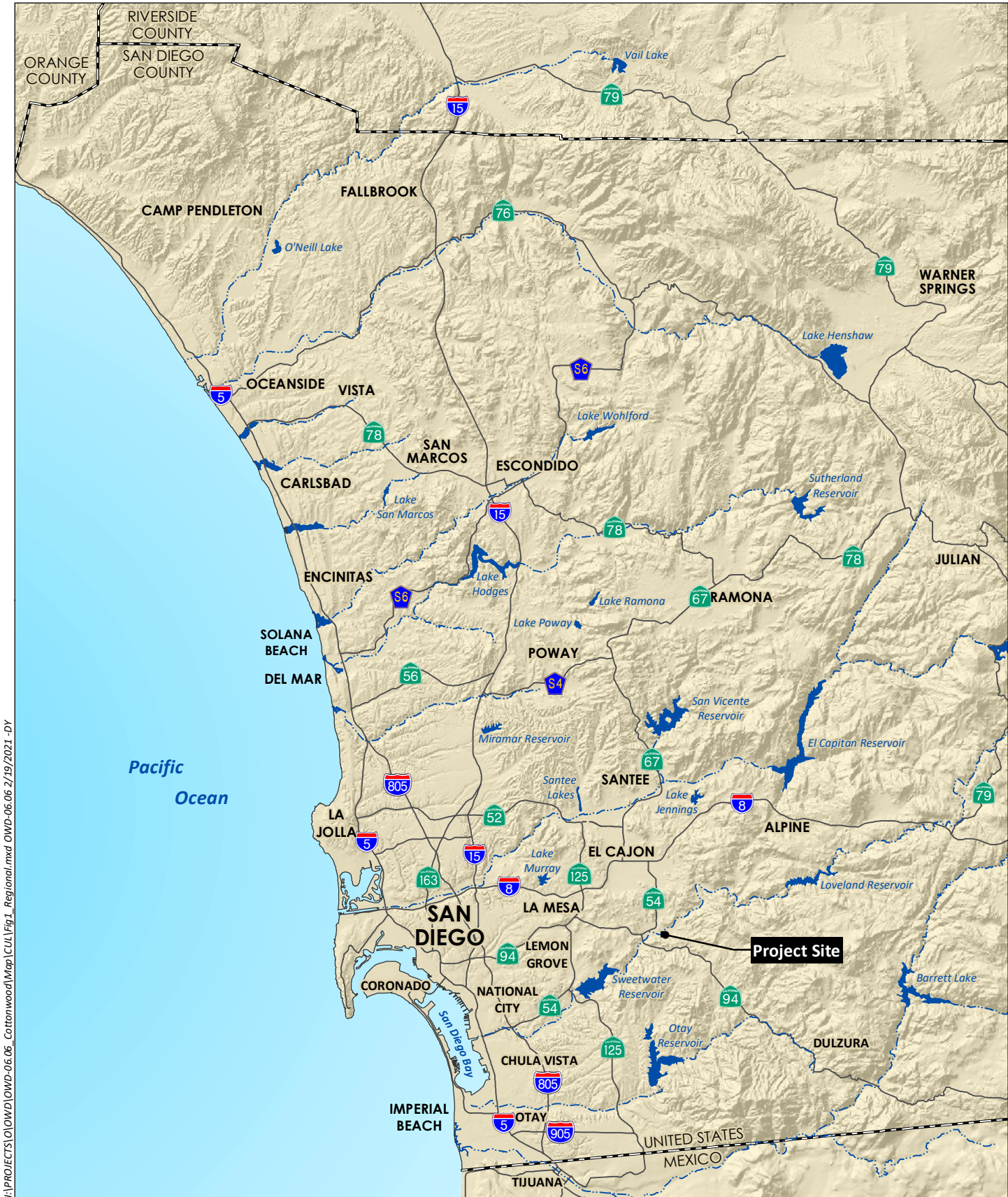
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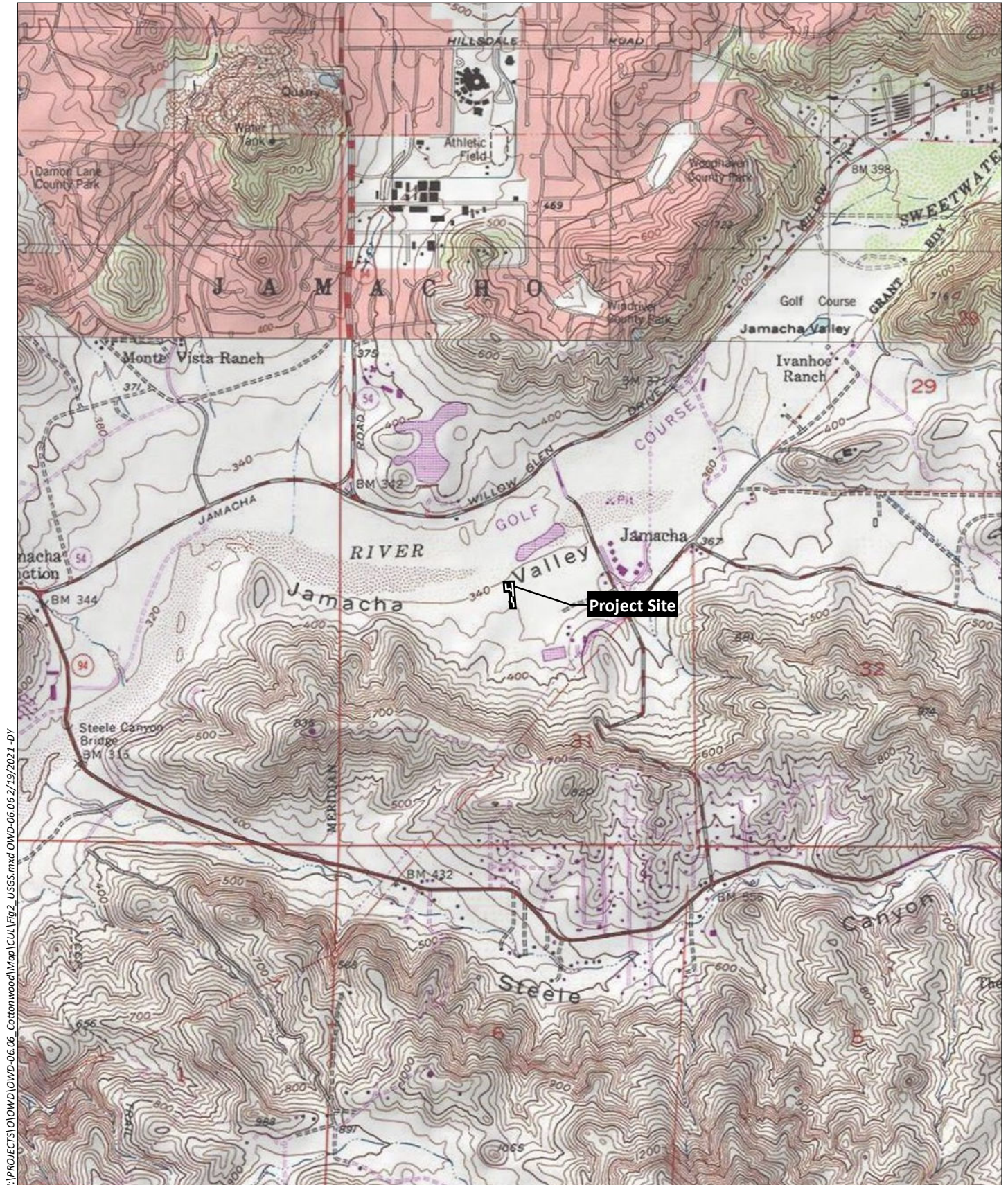
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Source: Base Map Layers (SanGIS, 2016)



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Source: JAMUL MOUNTAINS 7.5' Quad (USGS)



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0 100 Feet

Source: Aerial (SanGIS, 2020)

Attachment A

NAHC Correspondence



NATIVE AMERICAN HERITAGE COMMISSION

March 8, 2021

Stacie Wilson
HELIX Environmental Planning

Via Email to: staciew@helixepi.com

CHAIRPERSON
Laura Miranda
Luiseño

VICE CHAIRPERSON
Reginald Pagaling
Chumash

SECRETARY
Merri Lopez-Keifer
Luiseño

PARLIAMENTARIAN
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Chumash

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

COMMISSIONER
[Vacant]

EXECUTIVE SECRETARY
Christina Snider
Pomo

NAHC HEADQUARTERS
1550 Harbor Boulevard
Suite 100
West Sacramento,
California 95691
(916) 373-3710
nahc@nahc.ca.gov
NAHC.ca.gov

Re: Cottonwood Sewer Lift Station Replacement Project, San Diego County

Dear Ms. Wilson:

A record search of the Native American Heritage Commission (NAHC) Sacred Lands File (SLF) was completed for the information you have submitted for the above referenced project. The results were positive. Please contact the Ewiiapaayp Band of Kumeyaay Indians, the Kwaaymii Laguna Band of Mission Indians, and the Viejas Band of Kumeyaay Indians on the attached list for more information. Please also contact the Kumeyaay Cultural Repatriation Committee via phone at (760) 803-5694 for more information. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Attached is a list of Native American tribes who may also have knowledge of cultural resources in the project area. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated; if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call or email to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from tribes, please notify me. With your assistance, we can assure that our lists contain current information.

If you have any questions or need additional information, please contact me at my email address: Andrew.Green@nahc.ca.gov.

Sincerely,

Andrew Green
Cultural Resources Analyst

Attachment

**Native American Heritage Commission
Native American Contact List
San Diego County
3/8/2021**

Barona Group of the Capitan Grande

Edwin Romero, Chairperson
1095 Barona Road Diegueno
Lakeside, CA, 92040
Phone: (619) 443 - 6612
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cloyd@barona-nsn.gov

Campo Band of Diegueno Mission Indians

Ralph Goff, Chairperson
36190 Church Road, Suite 1 Diegueno
Campo, CA, 91906
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rgoff@campo-nsn.gov

Ewiiapaayp Band of Kumeyaay Indians

Robert Pinto, Chairperson
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Ewiiapaayp Band of Kumeyaay Indians

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Iipay Nation of Santa Ysabel

Clint Linton, Director of Cultural Resources
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Santa Ysabel, CA, 92070
Phone: (760) 803 - 5694
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Iipay Nation of Santa Ysabel

Virgil Perez, Chairperson
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Santa Ysabel, CA, 92070
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Inaja-Cosmit Band of Indians

Rebecca Osuna, Chairperson
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Escondido, CA, 92025
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Jamul Indian Village

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Jamul Indian Village

Lisa Cumper, Tribal Historic Preservation Officer
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Kwaaymii Laguna Band of Mission Indians

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La Posta Band of Diegueno Mission Indians

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La Posta Band of Diegueno Mission Indians

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This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Cottonwood Sewer Lift Station Replacement Project, San Diego County.

**Native American Heritage Commission
Native American Contact List
San Diego County
3/8/2021**

**Manzanita Band of Kumeyaay
Nation**

Angela Elliott Santos, Chairperson
P.O. Box 1302 Diegueno
Boulevard, CA, 91905
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Fax: (619) 766-4957

**Sycuan Band of the Kumeyaay
Nation**

Kristie Orosco, Kumeyaay
Resource Specialist
1 Kwaaypaay Court Kumeyaay
El Cajon, CA, 92019
Phone: (619) 445 - 6917

**Mesa Grande Band of Diegueno
Mission Indians**

Michael Linton, Chairperson
P.O Box 270 Diegueno
Santa Ysabel, CA, 92070
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Fax: (760) 782-9092
mesagrandeband@msn.com

**Viejas Band of Kumeyaay
Indians**

John Christman, Chairperson
1 Viejas Grade Road Diegueno
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Fax: (619) 445-5337

**San Pasqual Band of Diegueno
Mission Indians**

Allen Lawson, Chairperson
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Valley Center, CA, 92082
Phone: (760) 749 - 3200
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**Viejas Band of Kumeyaay
Indians**

Ernest Pingleton, Tribal Historic
Officer, Resource Management
1 Viejas Grade Road Diegueno
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**San Pasqual Band of Diegueno
Mission Indians**

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Coordinator
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johnf@sanpasqualtribe.org

**Sycuan Band of the Kumeyaay
Nation**

Cody Martinez, Chairperson
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Fax: (619) 445-1927
ssilva@sycuan-nsn.gov

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed Cottonwood Sewer Lift Station Replacement Project, San Diego County.

From: [Ray Teran](#)
To: [Stacie Wilson](#)
Cc: [Ernest Pingleton](#)
Subject: Cottonwood Sewer Lift Station
Date: Friday, April 02, 2021 12:52:21 PM

The Viejas Band of Kumeyaay Indians ("Viejas") has reviewed the proposed project and at this time we have determined that the project site has cultural significance or ties to Viejas. Cultural resources have been located within or adjacent to the APE-DE of the proposed project.

Viejas Band request that a Kumeyaay Cultural Monitor be on site for ground disturbing activities and to inform us of any new developments such as inadvertent discovery of cultural artifacts, cremation sites, or human remains.

If you wish to utilize Viejas cultural monitors, please call Ernest Pingleton at 619-655-0410 or email, epingleton@viejas-nsn.gov, for contracting and scheduling. Thank you.

If a Tribe, having a closer proximity to the Project, requests to perform cultural monitoring, Viejas will differ to them.

Ray Teran
Viejas Tribal Government
Resource Management Director
619-659-2312
rteran@viejas-nsn.gov



Initial Study Appendix D

Noise Impact Analysis

April 8, 2021

OWD-06.06

Lisa Coburn-Boyd
Otay Water District
2554 Sweetwater Boulevard
Spring Valley, CA 91978-2096

Subject: Cottonwood Sewer Lift Station Replacement Project – Noise Impact Analysis

Dear Ms. Coburn-Boyd:

HELIX Environmental Planning, Inc. (HELIX) has performed an analysis of construction and operational noise impacts for the proposed Cottonwood Sewer Lift Station Replacement Project (Project). This letter summarizes the methodology and results of the noise analysis.

PROJECT LOCATION

The Project is located in the unincorporated community of Jamul in eastern San Diego County, 0.9 mile north of State Route (SR) 94 and 0.6 mile southeast of SR 54 (see Figure 1, *Regional Location*). The Project site extends north from the western terminus of Par 4 Drive, approximately 1,500 feet west of Steele Canyon Road, and is partially within an abandoned area of the golf course associated with the Cottonwood Golf Club (see Figure 2, *Aerial Photograph*). Access to the site is provided via Par 4 Drive and Steele Canyon Road, either from SR 94 to the south or from Willow Glen Drive and SR 54 to the north.

PROJECT DESCRIPTION

Otay Water District (OWD) proposes the Project to replace an existing sewer lift station with a new and expanded sewer lift station on the adjacent property and expand an existing access road that provides access to the lift station. The existing lift station is located within a 40-foot by 40-foot OWD easement. The existing access road runs south from the existing lift station through a 20-foot wide by 312-foot long OWD easement to the western terminus of Par 4 Drive. The total area of the existing easement is 0.18 acre. As part of the Project, OWD would acquire 0.19 acre of property to the west of the existing easements, resulting in a total Project site area of 0.37 acre (see Figure 3, *Site Plan*).

The proposed lift station would have a capacity of between 500 and 600 gallons per minute (gpm) and would replace the existing 400-gpm lift station. The expanded capacity would be to serve anticipated development in the area. In addition to expanding lift station capacity, the Project would increase the

overall property area to allow for storage and greater functionality (e.g., maintenance trucks being able to turn around).

The Project site would include the lift station structure, a diesel-powered backup generator, an emergency storage tank, an existing transformer (to remain), and the expanded access road. The lift station structure would house a below-grade wet well and dry well, two 40-horsepower (HP) pumps, a fan for ventilation, and a control room. The generator, emergency storage tank, and existing transformer would be located on a concrete pad that would surround the lift station structure. The emergency storage tank would have a capacity of approximately 40,000 gallons, or enough to provide at least two hours of storage. During normal operations, the lift station would be powered by the existing on-site transformer that currently powers the existing lift station. The backup generator would power the lift station in the instance of failure of the transformer.

Construction of the Project would require site preparation to clear existing vegetation, excavation for the below-grade wet well and dry well, light grading for the site area surrounding the lift station and for the expanded access road, construction of the lift station structure and site area pad, installation and connection of facilities, paving, and demolition of existing structures. Construction is expected to last approximately one year and would occur between the hours of 7:00 a.m. and 7:00 p.m. in accordance with the County of San Diego Municipal Code. Excavation is currently estimated to result in 1,500 cubic yards (CY) of export, which would be either taken by the adjacent golf course property or transported to an existing legal disposal site. Construction staging would occur either within the Project site or within adjacent disturbed areas of the abandoned golf course.

Once construction activities are complete, activities on site would be limited to routine maintenance of facilities, consistent with the requirements of the current lift station. The diesel-powered backup generator would run a maximum of 50 hours annually for maintenance and testing purposes, and then when normal power supply is lost.

NOISE TERMINOLOGY AND METRICS

All noise level or sound level values presented herein are expressed in terms of decibels (dB), with A-weighting (dBA) to approximate the hearing sensitivity of humans. Time-averaged noise levels are expressed by the symbol L_{EQ} , with a specified duration. The Community Noise Equivalent Level (CNEL) is a 24-hour average, where noise levels during the evening hours of 7:00 p.m. to 10:00 p.m. have an added 5 dBA weighting, and sound levels during the nighttime hours of 10:00 p.m. to 7:00 a.m. have an added 10 dBA weighting. This is similar to the Day Night sound level (L_{DN}), which is a 24-hour average with an added 10 dBA weighting on the same nighttime hours but no added weighting on the evening hours. Sound levels expressed in CNEL are always based on dBA. These metrics are used to express noise levels for both measurement and municipal regulations, as well as for land use guidelines and enforcement of noise ordinances.

Sound can be described as the mechanical energy of a vibrating object transmitted by pressure waves through a liquid or gaseous medium (e.g., air) to a hearing organ, such as a human ear. Noise is defined as loud, unexpected, or annoying sound.

In the science of acoustics, the fundamental model consists of a sound (or noise) source, a receiver, and the propagation path between the two. The loudness of the noise source and obstructions or

atmospheric factors affecting the propagation path to the receiver contribute to the sound level and characteristics of the noise perceived by the receiver. The field of acoustics deals primarily with the propagation and control of sound.

Continuous sound can be described by frequency (pitch) and amplitude (loudness). A low frequency sound is perceived as low in pitch. Frequency is expressed in terms of cycles per second, or Hertz (Hz) (e.g., a frequency of 250 cycles per second is referred to as 250 Hz). High frequencies are sometimes more conveniently expressed in kilohertz (kHz), or thousands of Hertz. The audible frequency range for humans is generally between 20 Hz and 20,000 Hz.

The amplitude of pressure waves generated by a sound source determines the loudness of that source. A logarithmic scale is used to describe sound pressure level (SPL) in terms of dBA units. The threshold of hearing for the human ear is approximately 0 dBA, which corresponds to 20 micro Pascals (mPa).




Because decibels are logarithmic units, SPL cannot be added or subtracted through ordinary arithmetic. Under the decibel scale, a doubling of sound energy corresponds to a 3 dBA increase. In other words, when two identical sources are each producing sound of the same loudness, the resulting sound level at a given distance would be 3 dBA higher than one source under the same conditions.

REGULATORY FRAMEWORK

County of San Diego General Plan Noise Element

The Noise Element of the County General Plan includes guidelines for noise compatibility and establishes limitations on sound levels to be received by noise sensitive land uses (NSLUs; Tables N-1 and N-2 from the County General Plan), as detailed below in Table 1, *County of San Diego Noise Compatibility Guidelines*, and noise standards, as detailed in Table 2, *County of San Diego General Plan Noise Standards*. New development may cause an existing NSLU to be affected by noise caused by the new development, or it may locate a NSLU in such a place that it is affected by noise.

Table 1
COUNTY OF SAN DIEGO NOISE COMPATIBILITY GUIDELINES

Land Use Category		55*	60*	65*	70*	75*	80*
A	Residential—single family residences, mobile homes, senior housing, convalescent homes						
B	Residential—multi-family residences, mixed-use (commercial/residential)						
C	Transient lodging—motels, hotels, resorts						
D ⁽¹⁾	Schools, churches, hospitals, nursing homes, child care facilities						
E ⁽¹⁾	Passive recreational parks, nature preserves, contemplative spaces, cemeteries						
F ⁽¹⁾	Active parks, golf courses, athletic fields, outdoor spectator sports, water recreation						
G ⁽¹⁾	Office/professional, government, medical/dental, commercial, retail, laboratories						
H ⁽¹⁾	Industrial, manufacturing, utilities, agriculture, mining, stables, ranching, warehouse, maintenance/repair						
	ACCEPTABLE—Specified land use is satisfactory, based upon the assumption that any buildings involved are of normal construction, without any special noise insulation requirements.						
	CONDITIONALLY ACCEPTABLE—New construction or development should be undertaken only after a detailed noise analysis is conducted to determine if noise reduction measures are necessary to achieve acceptable levels for land use. Criteria for determining exterior and interior noise levels are listed in Table 3, Noise Standards. If a project cannot mitigate noise to a level deemed Acceptable, the appropriate County decision-maker must determine that mitigation has been provided to the greatest extent practicable or that extraordinary circumstances exist.						
	UNACCEPTABLE—New construction or development shall not be undertaken.						

Source: County 2011

⁽¹⁾ Denotes facilities used for part of the day; therefore, an hourly standard would be used rather than CNEL

Note: For projects located within an Airport Influence Area of an adopted Airport Land Use Compatibility Plan (ALUCP), additional Noise Compatibility Criteria restrictions may apply as specified in the ALUCP.

* Exterior Noise Level (CNEL)

Table 2
COUNTY OF SAN DIEGO GENERAL PLAN NOISE STANDARDS

1.	The exterior noise level (as defined in Item 3) standard for Category A shall be 60 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
2.	The exterior noise level standard for Categories B and C shall be 65 CNEL, and the interior noise level standard for indoor habitable rooms shall be 45 CNEL.
3.	The exterior noise level standard for Categories D and G shall be 65 CNEL and the interior noise level standard shall be 50 dBA L_{EQ} (one hour average).
4.	For single-family detached dwelling units, “exterior noise level” is defined as the noise level measured at an outdoor living area which adjoins and is on the same lot as the dwelling, and which contains at least the following minimum net lot area: (i) for lots less than 4,000 square feet in area, the exterior area shall include 400 square feet, (ii) for lots between 4,000 square feet to 10 acres in area, the exterior area shall include 10 percent of the lot area; (iii) for lots over 10 acres in area, the exterior area shall include 1 acre.
5.	For all other residential land uses, “exterior noise level” is defined as noise measured at exterior areas that are provided for private or group usable open space purposes. “Private Usable Open Space” is defined as usable open space intended for use of occupants of one dwelling unit, normally including yards, decks, and balconies. When the noise limit for Private Usable Open Space cannot be met, then a Group Usable Open Space that meets the exterior noise level standard shall be provided. “Group Usable Open Space” is defined as usable open space intended for common use by occupants of a development, either privately owned and maintained or dedicated to a public agency, normally including swimming pools, recreation courts, patios, open landscaped areas, and greenbelts with pedestrian walkways and equestrian and bicycle trails, but not including off-street parking and loading areas or driveways.
6.	For non-residential noise sensitive land uses, exterior noise level is defined as noise measured at the exterior area provided for public use.
7.	For noise sensitive land uses where people normally do not sleep at night, the exterior and interior noise standard may be measured using either CNEL or the one-hour average noise level determined at the loudest hour during the period when the facility is normally occupied.
8.	The exterior noise standard does not apply for land uses where no exterior use area is proposed or necessary, such as a library.
9.	For Categories E and F, the exterior noise level standard shall not exceed the limit defined as “Acceptable” in Table N-1 or an equivalent one-hour noise standard.

Source: County 2011

Note: Exterior Noise Level compatibility guidelines

County of San Diego Code of Regulatory Ordinances – Noise Ordinance

Sections 36.401 through 36.423 of the County of San Diego Code of Regulatory Ordinances discuss further County noise requirements. The purpose of the Noise Ordinance is to regulate noise in the unincorporated area of the County to promote the public health, comfort, and convenience of the County’s inhabitants and its visitors.

Section 36.404, General Sound Level Limits

The Noise Ordinance sets limits pertaining to the generation of exterior noise, as follows:

- (a) It is unlawful for any person to cause or allow the creation of any noise to the extent that the one-hour average sound level at any point on or beyond the boundaries of the property will exceed the applicable limits in Table 3, *County of San Diego Code of Regulatory Ordinances Exterior Sound Level Limits*.

Table 3
COUNTY OF SAN DIEGO CODE OF REGULATORY ORDINANCES EXTERIOR SOUND LEVEL LIMITS

Zone	Time	One-Hour Average Sound Level Limits (dBA)
(1) R-S, R-D, R-R, R-MH, A-70, A-72, S-80, S-81, S-87, S-90, S-92 and R-V and R-U with a density of less than 11 dwelling units per acre.	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	50 45
(2) R-RO, R-C, R-M, S-86, V5 and R-V and R-U with a density of 11 or more dwelling units per acre.	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	55 50
(3) S-94, V4 and all other commercial zones.	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	60 55
(4) V1, V2	7:00 a.m. to 7:00 p.m.	60
V1, V2	7:00 p.m. to 10:00 p.m.	55
V1	10:00 p.m. to 7:00 a.m.	55
V2	10:00 p.m. to 7:00 a.m.	50
V3	7:00 a.m. to 10:00 p.m. 10:00 p.m. to 7:00 a.m.	70 65
(5) M-50, M-52 and M-54	Anytime	70
(6) S-82, M-56 and M-58	Anytime	75
(7) S-88 (see subsection (c) below)	-	-

Source: County of San Diego Code of Regulatory Ordinances Section 36.404.

Zoning Code Definitions: R-S = Single-Family Residential; R-D = Duplex Residential; R-R = Rural Residential; R-MH = Mobile home Residential; A-70 = Limited Agriculture; A-72 = General Agriculture; S-80 = Open Space; S-90 = Holding Area; S-92 = General Rural; S-94 = Transportation and Utility Corridor; R-V = Variable-Family Residential; R-RO = ; R-C = Residential-Commercial; R-M = Multi-Family Residential ; S-86 = Parking; R-U = Urban Residential; V1, V2, V3, V4, and V5 = Village Designations; M-50 = Basic Industrial; M-52 = Limited Industrial; M-54 = General Impact Industrial; S-82 = Extractive Use; M-56 = Mixed Industrial; M-58 = High-Impact Industrial; S-88 = Specific Plan

- (b) Where a noise study has been conducted and the noise mitigation measures recommended by that study have been made conditions of approval of a Major Use Permit, which authorizes the noise-generating use or activity and the decision making body approving the Major Use Permit determined that those mitigation measures reduce potential noise impacts to a level below significance, implementation and compliance with those noise mitigation measures shall constitute compliance with subsection (a) above.
- (c) S-88 zones are Specific Planning Areas that allow for different uses. The sound level limits in Table 1 that apply in an S-88 zone depend on the use being made of the property. The limits in Table 3, subsection (1) apply to property with a residential, agricultural, or civic use. The limits in subsection (5) apply to property with an industrial use that would only be allowed in an M-50, M-52, or M-54 zone. The limits in subsection (6) apply to all property with an extractive use or a use that would only be allowed in an M-56 or M-58 zone.
- (d) If the measured ambient level exceeds the applicable limit noted above, the allowable one-hour average sound level shall be the ambient noise level, plus 3 dB. The ambient noise level shall be measured when the alleged noise violation source is not operating.

- (e) The sound level limit at a location on a boundary between two zones is the arithmetic mean of the respective limits for the two zones; provided however, that the one-hour average sound level limit applicable to extractive industries, including but not limited to borrow pits and mines, shall be 75 dB at the property line regardless of the zone which the extractive industry is actually located.
- (f) A fixed-location public utility distribution or transmission facility located on or adjacent to a property line shall be subject to the sound level limits of this section, measured at or beyond six feet from the boundary of the easement upon which the facility is located.

Section 36.408, Hours of Operation of Construction Equipment

Except for emergency work, it shall be unlawful for any person to operate or cause to be operated, construction equipment:

- a. Between the hours of 7:00 p.m. and 7:00 a.m.
- b. On a Sunday or a holiday. For the purposes of this section a holiday means January 1, the last Monday in May, July 4, the first Monday in September, December 25, and any day appointed by the President as a special national holiday or the Governor of the State as a special State holiday. A person may, however, operate construction equipment on a Sunday or holiday between the hours of 10:00 a.m. and 5:00 p.m. at the person's residence or for the purpose of constructing a residence for himself or herself, provided that the operation of construction equipment is not carried out for financial consideration or other consideration of any kind and does not violate the limitations in Sections 36.409 and 36.410.

Section 36.409, Construction Noise

Except for emergency work, it shall be unlawful for any person to operate construction equipment or cause construction equipment to be operated, that exceeds an average sound level of 75 dB for an 8-hour period, between 7:00 a.m. and 7:00 p.m., when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is being received.

Section Impulsive Noise

Section 36.410 provides additional limitation on construction equipment beyond Section 36.404 pertaining to impulsive noise. Except for emergency work or work on a public road project, no person shall produce or cause to be produced an impulsive noise that exceeds the maximum sound level shown in Table 4, *County of San Diego Maximum Sound Levels (Impulsive)*, when measured at the boundary line of the property where the noise source is located or on any occupied property where the noise is received, for 25 percent of the minutes in the measurement period.

Table 4
COUNTY OF SAN DIEGO MAXIMUM SOUND LEVELS (IMPULSIVE)

Occupied Property Use	Decibels (dBA) L_{MAX}
Residential, village zoning or civic use	82
Agricultural, commercial or industrial use	85

Source: County of San Diego Municipal Code Section 36.410
dBA = A-weighted decibel; L_{MAX} = maximum noise level

The minimum measurement period for any measurements is one hour. During the measurement period, a measurement must be conducted every minute from a fixed location on an occupied property. The measurements must measure the maximum sound level during each minute of the measurement period. If the sound level caused by construction equipment or the producer of the impulsive noise exceeds the maximum sound level for any portion of any minute, it will be deemed that the maximum sound level was exceeded during that minute.

EXISTING CONDITIONS

Surrounding Land Uses

The Project site and land to the north and west include a decommissioned golf course and have a land use designation of Open Space (Recreation). Land to the east and southeast is developed with single-family residences and has a land use designation of Semi-Rural Residential. Land to the southwest includes open space and recreational hiking trails within the San Diego National Wildlife Refuge and has a land use designation of Public Agency Lands. Refer to Figure 2 for locations of land uses in proximity to the Project site. The Project site and land to the north, south, and west is zoned S-88 (Specific Plan) and land to the east is zoned A-70 (Limited Agriculture).

Existing Noise Sensitive Land Uses

NSLUs are land uses that may be subject to stress and/or interference from excessive noise and generally include residences, hospitals, schools, hotels, resorts, libraries, sensitive wildlife habitat, or similar facilities where quiet is an important attribute of the environment. Existing NSLUs in the vicinity of the Project site include single-family residential properties immediately east of the Project site.

Existing Noise Setting

An ambient noise survey was conducted at the Project site on March 19, 2021 to document the existing noise setting of the area. The survey included two 15-minute noise measurements, one adjacent to the existing lift station and one further south along the access road. The measured noise levels are shown in Table 5, *Ambient Noise Measurement Survey Results*, and the measurement locations are depicted on Figure 2. The primary noise source in the vicinity of the Project site is vehicular traffic along Willow Glen Drive.

Table 5
AMBIENT NOISE MEASUREMENT SURVEY RESULTS

Measurement	Location	Time	Noise Level (dBA L _{EQ})
M1	Adjacent to the existing lift station	1:10 p.m. – 1:25 p.m.	50.4
M2	Along the access road	1:27 p.m. – 1:41 p.m.*	48.9

* Measurement M2 was concluded after 14 minutes instead of 15 minutes because a nearby dog starting barking.

ANALYSIS METHODOLOGY

Noise Measurement Equipment

The following equipment was used to measure existing noise levels at the Project site:

- Larson Davis System LxT Integrating Sound Level Meter
- Larson Davis Model CAL150 Calibrator
- Windscreen and tripod for the sound level meter

On-site noise levels were recorded using a sound level meter conforming to the American National Standards Institute (ANSI) specifications for sound level meters, ANSI S1.4-1983 (R2006). The meter was field-calibrated immediately prior to the noise measurement to ensure accuracy, with all instruments maintained with National Institute of Standards and Technology traceable calibration, per the manufacturers' standards.

Noise Modeling Software

Modeling of the exterior noise environment for this report was accomplished using two computer noise models: Computer Aided Noise Abatement (CadnaA) version 2019 and Traffic Noise Model (TNM) version 2.5. CadnaA is a model-based computer program developed by DataKustik for predicting noise impacts in a wide variety of conditions. CadnaA assists in the calculation, presentation, assessment, and mitigation of noise exposure. It allows for the input of project related information, such as noise source data, barriers, structures, and topography to create a detailed CadnaA model, and uses the most up-to-date calculation standards to predict outdoor noise impacts. CadnaA traffic noise prediction is based on the data and methodology used in the TNM.

TNM was released in February 2004 by the U.S. Department of Transportation (USDOT) and calculates the daytime average hourly L_{EQ} from three-dimensional model inputs and traffic data (California Department of Transportation [Caltrans] 2004). TNM was developed from Computer Aided Design (CAD) plans provided by the Project applicant. Input variables included road alignment, elevation, lane configuration, area topography, existing and planned noise control features, projected traffic volumes, estimated truck composition percentages, and vehicle speeds.

Project construction noise was also analyzed using the Roadway Construction Noise Model (RCNM; USDOT 2008), which utilizes estimates of sound levels from standard construction equipment.

IMPACT SIGNIFICANCE CRITERIA

Based on Appendix G of the CEQA Guidelines, implementation of the Project would result in a significant adverse impact if it would:

Threshold 1: *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.*

Impacts related to a temporary or periodic increase in ambient noise levels due to construction would be considered significant if noise from construction activity exceeds 75 dBA for an eight-hour period between 7:00 a.m. and 7:00 p.m. at the adjacent residential properties; if impulsive noise exceeds 82 dBA L_{MAX} at the adjacent residential properties; or if noise is generated between the hours of 7:00 p.m. and 7:00 a.m. on weekdays, or any time on a Sundays or holidays, in accordance with the County of San Diego Noise Ordinance.

Impacts related to a permanent increase in ambient noise levels would be considered significant if operation of the Project would result in one-hour average noise levels in excess of applicable property line noise limits specified in the County of San Diego Noise Ordinance (refer to Table 3). Properties to the east are zoned A-70 and include single-family residential uses. The applicable noise level limits are 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. or 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. Properties to the north and west are zoned S-88. According to Section 36.404(c) of the County of San Diego Noise Ordinance, the applicable property line noise limits for the S88 zone depends on the use being made of the property. The property to the north and west of the Project site currently includes a decommissioned golf course; however, it has a land use designation of Open Space (Recreation) and will likely be used as such in the future. The noise limits for open space (S-80) in Table 3 are 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. Therefore, for this analysis, noise levels limits of 50 dBA during the hours of 7:00 a.m. to 10:00 p.m. and 45 dBA during the hours of 10:00 p.m. to 7:00 a.m. are used at the Project's eastern, northern, and western property lines. The southern Project site property line (at the base of the access road) is located away from where the noise-generating equipment would be and is therefore not considered herein.

Threshold 2: *Result in generation of excessive ground-borne vibration or ground-borne noise levels.*

Impacts would be significant if construction or operation of the Project would result in the exposure of persons to ground-borne vibration equal to or in excess of Caltrans' (2020) "strongly perceptible" human response threshold of 0.1 inch per second (in/sec) peak particle velocity (PPV) for steady state sources.

Threshold 3: *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, expose people residing or working in the project area to excessive noise levels.*

Excessive aircraft-related noise could occur if the project is located within the vicinity of a private airstrip, within an airport land use plan, or within two miles of a public airport or public use airport.

IMPACT ANALYSIS

Issue 1: Excessive Noise Levels

Would the Project 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?

Construction Noise

On-site Construction Activities

The Project's expected on-site construction activities can be grouped into three main components: (1) access road improvements; (2) construction of the new lift station; and (3) demolition of the existing lift station structures. Construction would generate elevated noise levels that could be audible to the residential NSLUs to the east of the Project site. The magnitude of the impact would depend on the type of construction activity, equipment used, duration of each construction phase, distance between the noise source and receiver(s), and any intervening structures. Construction equipment would not all operate at the same time or location. Furthermore, construction equipment would not be in constant use during the 8-hour operating day.

Access Road Improvements

Work for the access road improvements would involve site preparation (vegetation clearing), light grading, and paving, and would occur at an approximate average distance of 30 feet from the residential property line to the east. Site preparation and light grading are anticipated to be accomplished using a single skid steer. Paving would be accomplished using a roller and a paver, which would be used consecutively, not simultaneously, and would therefore not combine to generate elevated noise levels. At 30 feet, a skid steer is estimated to generate a noise level of 75.5 dBA L_{EQ} , a roller 77.4 dBA L_{EQ} , and a paver 78.6 dBA L_{EQ} , all of which exceed the 75-dBA L_{EQ} limit; however, this is assuming that the equipment is operating at a stationary location and generating maximum noise levels at a single receptor location located 30 feet away. In actuality, these pieces of equipment would be mobile along the length of the approximately 270-foot-long access road and would not remain within 30 feet of a given receptor location over the course of a workday. As such, noise levels at a given receptor location from construction work along the access road are expected to be below the 75-dBA limit over the course of an 8-hour workday.

Lift Station Construction

Construction of the new lift station site would involve site preparation (vegetation clearing), excavation for the below-grade wet well and dry well, light grading, construction of the lift station structure and site area pad, installation and connection of facilities, and paving. Work for the lift station site construction would occur throughout the lift station site area (i.e., the portion of the Project site excluding the access road); therefore, for noise analysis purposes, construction equipment is modeled to be located at the center of the lift station site area, at an approximate distance of 50 feet from the closest residential property line to the east. This distance represents the assumed average distance to the property line that construction equipment would be operating at over the course of an 8-hour workday. The loudest

combination of pieces of equipment anticipated to be used simultaneously for each of these construction activities and the resultant noise levels at 50 feet are shown in Table 6, *Lift Station Construction Noise Levels*.

Table 6
LIFT STATION CONSTRUCTION NOISE LEVELS

Activity	Simultaneous Equipment	Noise Level at 50 feet (dBA L_{EQ})	Exceed 75 dBA Limit?
Site Preparation	Skid steer	71.0	No
Excavation	Excavator and dump truck	78.1	Yes
	Backhoe and dump truck	76.1	Yes
Light Grading	Skid steer	71.0	No
Structure Construction	Concrete pump truck and concrete mixer truck	77.6	Yes
	Backhoe and dump truck	76.1	Yes
	Crane and delivery truck	75.6	Yes
	Crane and welder	74.5	No
Facilities Installation	Crane and welder	74.5	No
Paving	Roller	73.0	No
	Paver	74.2	No

Source: RCNM (USDOT 2008)

As shown in Table 6, excavation and structure construction are estimated to result in noise levels in excess of the 75-dBA L_{EQ} limit; therefore, the Project's temporary construction noise impacts are considered potentially significant. Mitigation measure NOI-1, provided below, would be required to reduce impacts to a less-than-significant level.

Existing Lift Station Demolition

Demolition of the existing concrete block lift station structure would be required and would occur at an approximate average distance of 30 feet from the residential property line to the east. Initial demolition is expected to be accomplished using either a concrete saw or a breaker. At 30 feet, a concrete saw is estimated to generate a noise level of 87.0 dBA L_{EQ} and a breaker is estimated to generate a noise level of 87.7 dBA L_{EQ} . Excavated materials would then likely be loaded into a dump truck using a loader. A loader and dump truck operating simultaneously are estimated to generate a combined noise level of 81.5 dBA L_{EQ} at 30 feet. These demolition activities have the potential to result in noise levels in excess of the 75-dBA L_{EQ} limit; therefore, the Project's temporary construction noise impacts are considered potentially significant. Mitigation measure NOI-1 would be required to reduce impacts to a less-than-significant level.

NOI-1 Construction Noise Management Plan. Noise from Project construction activities shall comply with the limits and hours specified in the County of San Diego Noise Ordinance. Construction shall not occur outside the hours of 7:00 a.m. and 7:00 p.m. Construction noise shall not exceed 75 dBA L_{EQ} (8-hour) at nearby residential land uses.

Appropriate measures shall be implemented to reduce construction noise, including, but not limited to, the following:

- Construction equipment shall be properly outfitted and maintained with manufacturer-recommended noise-reduction devices.
- Diesel equipment shall be operated with closed engine doors and equipped with factory-recommended mufflers.
- Mobile or fixed “package” equipment (e.g., arc-welders and air compressors) shall be equipped with shrouds and noise control features that are readily available for that type of equipment.
- Electrically powered equipment shall be used instead of pneumatic or internal combustion powered equipment, where feasible.
- Unnecessary idling of internal combustion engines (e.g., in excess of 5 minutes) shall be prohibited.
- The use of noise-producing signals, including horns, whistles, alarms, and bells, shall be for safety warning purposes only.
- No Project-related public address or music system shall be audible at any adjacent sensitive receptor.
- Any truck or equipment equipped with back-up alarm moving within 300 feet of a NSLU should have the normal back-up alarm disengaged and safety provided by lights and flagman or broad-spectrum noise backup alarm (as appropriate for conditions) used in compliance with the Occupational Safety and Health Administration safety guidelines.
- Temporary sound barriers or sound blankets shall be installed between construction operations and adjacent NSLUs. The Project Contractor shall construct a temporary noise barrier of a height breaking the line of sight between the equipment and nearby receptors and meeting the specifications listed below (or of a Sound Transmission Class [STC] 19 rating or better) to attenuate noise.
- If a temporary barrier is used, all barriers shall be solid and constructed of wood, plastic, fiberglass, steel, masonry, or a combination of those materials, with no cracks or gaps through or below the wall. Any seams or cracks must be filled or caulked. If wood is used, it can be tongue and groove or close butted seams and must be at least 3/4-inch thick or have a surface density of at least 3.5 pounds per square-foot. Sheet metal of 18-gauge (minimum) may be used if it meets the other criteria and is properly supported and stiffened so that it does not rattle or create noise itself from vibration or wind. Noise blankets, hoods, or covers also may be used, provided they are appropriately implemented to provide the required sound attenuation.
- Residents within 200 feet of the Project’s disturbance area shall be notified in writing within one week of any construction activity. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of a complaint and response procedure.

- The on-site construction supervisor shall have the responsibility and authority to receive and resolve noise complaints. A clear appeal process for the affected resident shall be established prior to construction commencement to allow for resolution of noise problems that cannot be immediately solved by the site supervisor.

Implementation of mitigation measure NOI-1 would allow the Project's construction noise levels to not exceed thresholds. Impacts would be less than significant.

Off-site Construction Activities

The Project would result in approximately 1,500 CY of excavated material that would either be taken by the adjacent golf course or taken to an off-site disposal location. If taken off site, the export of material would be accomplished via approximately 100 haul trucks, assuming a single truck hauls 15 CY of material. Each haul truck would make one trip to the Project site to pick up the material and another trip from the Project site to transport the material, resulting in a total of 200 haul truck trips. These trips are anticipated to occur over the course of 10 workdays, for a total of 20 haul truck trips per day, or 2.5 trips per hour over the course of an 8-hour workday. The haul trucks would generate noise that may be audible to residential NSLUs along Par 4 Drive.

TNM software was used to calculate noise levels at residences from the haul trucks traveling along Par 4 Drive. For modeling purposes, 3 trucks per hour was assumed (rounded up from the 2.5 trucks per hour discussed above). The closest residential exterior use areas are located approximately 30 feet from the center of Par 4 Drive. At a distance of 30 feet, 3 trucks per hour traveling at a speed of 25 miles per hour would generate a noise level of 52.6 dBA L_{EQ} . This would be well below the 75-dBA L_{EQ} limit for construction noise, and associated impacts would be less than significant.

Operational Noise

Operation of the proposed lift station would include equipment that would generate elevated noise levels. The two primary operational noise-generating components of the Project would be (1) the lift station pump motors and ventilation system, and (2) the diesel backup generator. Design plans are not available at this stage in the planning process to provide specific equipment location information or equipment noise data; therefore, assumptions based on typical lift station design and standard lift station equipment are used herein for this analysis.

The two 40-HP pump motors would be located within the lift station structure and are expected to generate interior noise levels ranging from 75 to 90 dBA. The structure would include a vent for air ventilation, and the pump motor noise would transfer from the interior to the exterior of the structure through the vent. Additional noise would occur from the ventilation fan near the vent opening. While dependent on the specific type of equipment and size of the vent, exterior noise levels are expected to be up to approximately 80 dBA at 10 feet for standard equipment of this size. Based on this noise level, the vent noise levels could be above 50 dBA within 300 feet and above 45 dBA within 550 feet. Since the Project's lift station vent would be located within these distances to the property line(s), noise levels would have the potential to exceed the applicable 50-dBA L_{EQ} daytime and 45-dBA L_{EQ} nighttime limits. Mitigation measure NOI-2 would be required to reduce impacts to a less-than-significant level.

NOI-2 Lift Station Operation Noise Attenuation. Noise generated by operation of the lift station pumps and ventilation system shall comply with the 50-dBA limit during the hours of 7:00 a.m. to 10:00 p.m. and the 45-dBA limit during the hours of 10:00 p.m. to 7:00 a.m. at the Project site's eastern, western, and northern property lines. To adequately reduce noise levels, noise attenuating equipment and/or acoustical shielding shall be incorporated into Project design. Such features may include, but not be limited to, acoustical louvers, in-line silencers, and/or noise walls. Prior to building plan approval, planning for the lift station noise sources shall be required to show noise compliance with the 50-dBA daytime limit and 45-dBA nighttime limit at the property lines. A final operational test shall be required with the pumps and ventilation system in operation to ensure noise levels are below the required standards.

The Project would include a backup generator that would be used to power the lift station in the instance of normal power failure and would be tested regularly during daytime hours. A standard generator of the size anticipated to be required for the Project is estimated to generate a noise level of approximately 75 dBA at 23 feet. Based on this noise level, the generator noise levels could be above 50 dBA within 400 feet. Since the Project's generator would be located within this distance to the property line(s), noise levels would have the potential to exceed the applicable 50-dBA L_{EQ} daytime limit during regular generator testing. Mitigation measure NOI-3 would be required to reduce impacts to a less-than-significant level.

NOI-3 Generator Noise Attenuation. Noise generated by the generator during regular testing shall comply with the 50-dBA limit at the Project site's eastern, western, and northern property lines. To adequately reduce noise levels, noise attenuating equipment and/or acoustical shielding shall be incorporated into Project design. Such features may include, but not be limited to, noise walls, noise control enclosures, and/or noise absorbing paneling. Prior to building plan approval, planning for the generator shall be required to show noise compliance with the 50-dBA daytime limit at the property lines. A final operational test shall be required with the generator in operation to ensure noise levels are below the required standards.

Issue 2: Excessive Vibration

Would the Project result in generation of excessive ground-borne vibration or ground-borne noise levels?

Construction Vibration

A likely source of vibration during Project construction would be a vibratory roller, which would be used for soil compaction for the Project's expanded access road and lift station area pad. A standard vibratory roller creates approximately 0.210 inch per second PPV at a distance of 25 feet (Caltrans 2020). Based on this metric, use of a vibratory roller within 50 feet would have the potential to exceed the "strongly perceptible" vibration annoyance potential criteria for human receptors of 0.1 inch per second PPV,¹ as specified by Caltrans in its *Transportation and Construction Vibration Guidance Manual* (2020). There is potential for use of a vibratory roller to be required within 50 feet of off-site residences for development of the Project's expanded access road, which could result in an exceedance of the "strongly perceptible" vibration annoyance potential criteria for the residence immediately east of the

¹ Equipment PPV = Reference PPV * $(25/D)^n$ (in/sec), where Reference PPV is PPV at 25 feet, D is distance from equipment to the receptor in feet, and $n = 1.1$ (the value related to the attenuation rate through the ground); formula from Caltrans 2020.

Project's access road. However, exposure of this adjacent off-site residences to vibration would be limited to very short durations. A vibratory roller moves at a speed of approximately two miles per hour, which equates to 176 feet per minute. As the residence adjacent to the access road is approximately 125 feet long, a vibratory roller would be adjacent to the residence for approximately 43 seconds during a single pass, which would not result in excessive or substantial exposure. Further, use of a vibratory roller for the access road would be temporary. Temporary use of the vibratory roller at the lift station site would occur at distances greater than 50 feet from the residence and would not result in excessive vibration. Other equipment used during project construction is expected to generate less ground-borne vibration than a vibratory roller. As such, the Project's temporary construction vibration impacts would be less than significant.

Operational Vibration

The Project would not include components that would have the potential to generate perceptible vibration at adjacent properties.

Issue 3: Aircraft Noise

For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the Project expose people residing or working in the project area to excessive noise levels?

The closest airport to the Project site is Gillespie Field, located approximately 6 miles to the northwest. There are no public or private airports within two miles of the Project site; therefore, the Proposed Project would not expose people residing or working to excessive aircraft noise, and impacts would be less than significant.

CONCLUSIONS

Through incorporation of the mitigation measures specified above, the Project's impacts related to construction and operational noise generation would be less than significant.

Sincerely,



Hunter Stapp
Noise Analyst



Charles Terry
Principal Specialist, Noise, Acoustics & Vibration

Attachments:

Figure 1: Regional Location

Figure 2: Aerial Photograph

Figure 3: Site Plan

Attachment A: Noise Measurement Site Survey Sheets

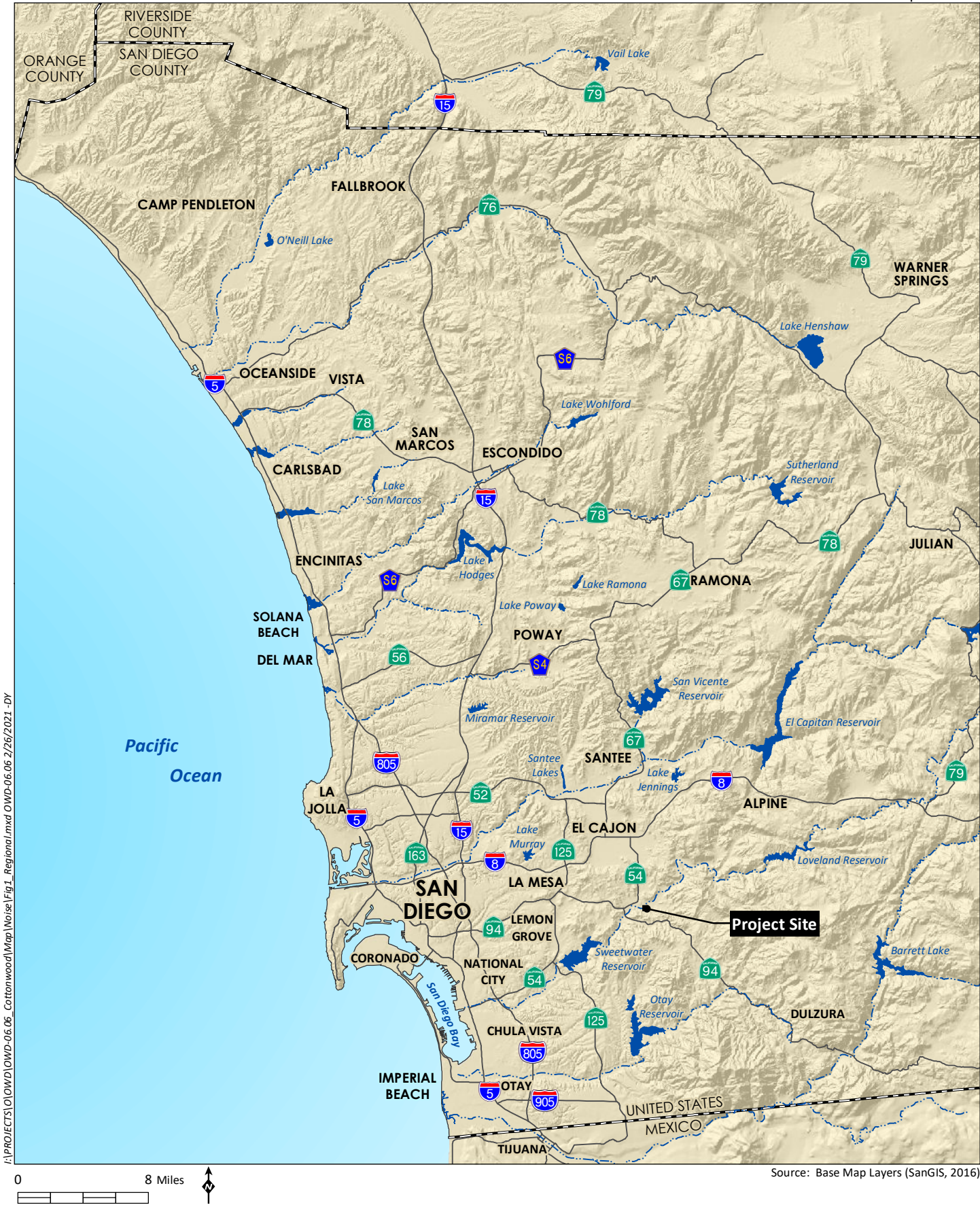
REFERENCES

California Department of Transportation (Caltrans). 2020. Transportation and Construction Vibration Guidance Manual. April.

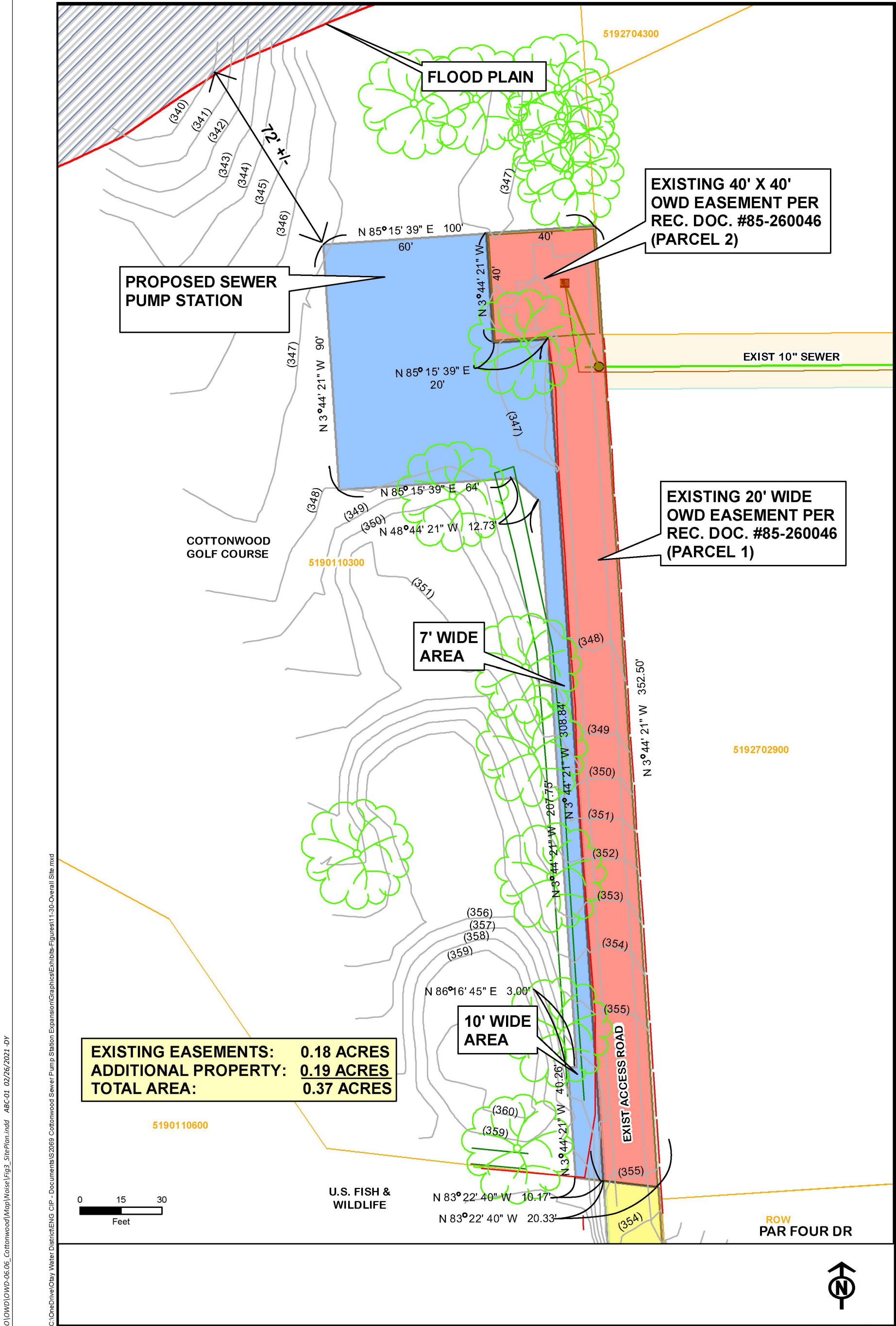
2004. California Department of Transportation, Traffic Noise Model (TNM).

San Diego, County of. 2011. San Diego County General Plan Noise Element.

U.S. Department of Transportation (USDOT). 2008. Roadway Construction Noise Model (RCNM).







Source: Otay Water District (2021)

Attachment A

Noise Measurement Site Survey Sheets

Site Survey

Job # *OWD-06.06*

Project Name: *Cottonwood Sewer LS*

Date: *3/19/21*

Site #: *1*

Engineer: *Hunter S.*

Address: *existing lift station access road*

Meter: *LD 831*

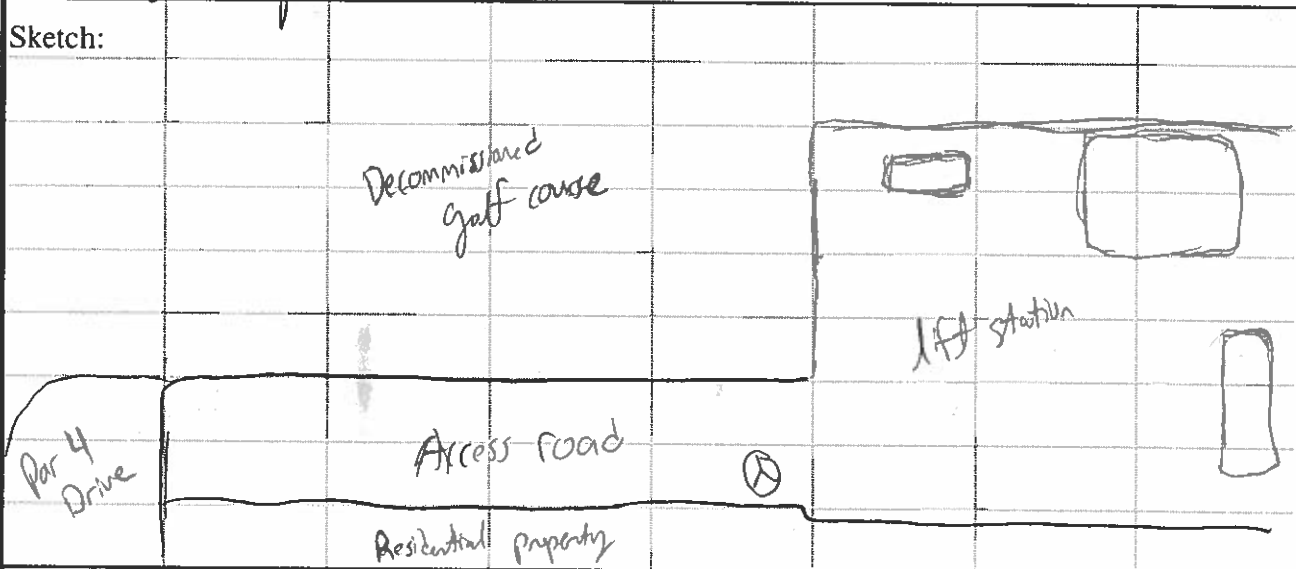
Serial #:

Calibrator: *CA 270*

Serial #: *2621*

Notes: *Distant traffic primary noise source; Person talking @ res. property;
Birds chirping; Leaves rustling; air plane flyovers; intermittent lift
station power noise.*

Sketch:



Temp: *75°*

Wind Spd: *10* mph

Humidity: *33* %

Start of Measurement: *1:10 pm*

End of Measurement: *1:25 pm*

50.4 dBA L_{EQ}

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided

Site Survey

Job # OWD-06.06

Project Name: Cottonwood Sewer LS

Date: 3/19/21

Site #: 2

Engineer: Hunter S

Address: existing lift station access road

Meter: LD 831

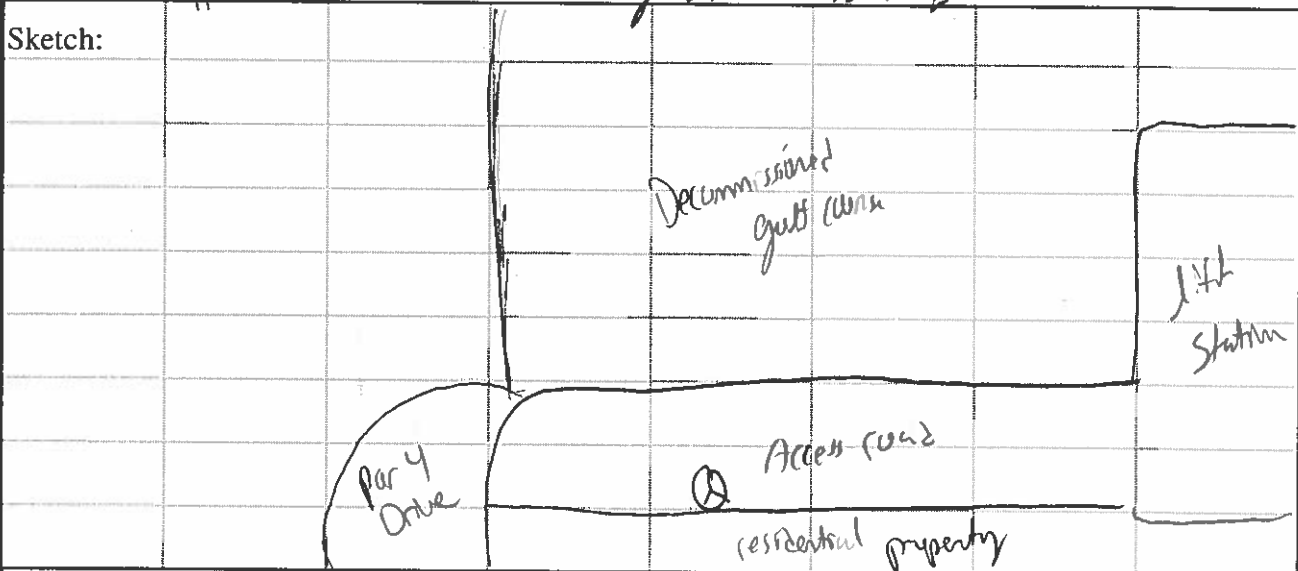
Serial #:

Calibrator: C1250

Serial #: 2621

Notes: Distant traffic noise main noise source; birds chirping; leaves rustling; occasional airplane flyover; distant person talking @ res. property
295 stopped 1 minute short b/c dog started barking

Sketch:



Temp: 75

Wind Spd:

10

mph

Humidity:

33

%

Start of Measurement: 1:27 pm

End of Measurement: 1:41 pm

48.9

dBA L_{EQ}

Cars (tally per 5 cars)

Medium Trucks (MT)

Heavy Trucks (HT)

Noise Measurement for Information Only

No Through Roadways

No Calibration Analysis Will Be Provided