PUBLIC REVIEW VERSION

Initial Study/Mitigated Negative Declaration

Moulton Niguel Water District Advanced Water Treatment Facility Salinity Management System Project

SEPTEMBER 2024

Prepared for:

MOULTON NIGUEL WATER DISTRICT
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Acronyms and Abbreviations

Acronym/Abbreviation	Definition
AB	Assembly Bill
AERMOD	American Meteorological Society/Environmental Protection Agency Regulatory Model
AQMP	air quality management plan
AWT	Advanced Water Treatment
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Cal/OSHA	California Occupational Safety and Health Administration
CalEEMod	California Emissions Estimator Model
CARB	California Air Resources Board
CBC	California Building Code
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CH_4	methane
City	City of Laguna Niguel
CNEL	community noise equivalent level
CO	carbon monoxide
CO_2	carbon dioxide
CO_2e	carbon dioxide equivalent
Construction General Permit	General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities
dBA	A-weighted decibel
District	Moulton Niguel Water District
District Board	District Board of Directors
DPM	diesel particulate matter
EPA	U.S. Environmental Protection Agency
FTA	Federal Transit Administration
GHG	greenhouse gas
GWP	global warming potential
HARP2	Hotspots Analysis and Reporting Program Version 2
HIC	Chronic Hazard Index
HRA	health risk assessment
HVAC	heating, ventilation, and air conditioning
ips	inches per second
L_{dn}	day/night average sound level
L_{eq}	energy-equivalent sound level
LST	localized significance threshold
MM	Mitigation Measure
MND	mitigated negative declaration
MRZ	Mineral Resource Zone

Acronym/Abbreviation	Definition
MS4	Municipal Separate Storm Sewer System
MT	metric ton
N_2O	nitrous oxide
NAAQS	National Ambient Air Quality Standards
NAHC	Native American Heritage Commission
NHMLA	Natural History Museum of Los Angeles County
NO_2	nitrogen dioxide
NO_x	oxides of nitrogen
NPDES	National Pollutant Discharge Elimination System
O_3	ozone
OC NCCP/HCP	Orange County Natural Community Conservation Plan/Habitat Conservation Plan
OC Parks	Orange County Parks Department
OEHHA	Office of Environmental Health Hazard Assessment
PM_{10}	particulate matter with an aerodynamic diameter less than or equal to 10 microns
$PM_{2.5}$	particulate matter with an aerodynamic diameter less than or equal to 2.5 microns
PPV	peak particle velocity
project	Advanced Water Treatment Facility Salinity Management System Project
PRC	Public Resources Code
RO	reverse osmosis
RTP	Regional Treatment Plant
RTP/SCS	Regional Transportation Plan/Sustainable Communities Strategy
RWQCB	Regional Water Quality Control Board
SB	Senate Bill
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCCIC	South Central Coastal Information Center
SLF	Sacred Lands File
SOCWA	South Orange County Wastewater Authority
SR	State Route
SWPPP	stormwater pollution prevention plan
TAC	toxic air contaminant
TCR	tribal cultural resource
TDS	total dissolved solids
USGS	U.S. Geological Survey
VMT	vehicle miles traveled
VOC	volatile organic compound

1 Introduction

The Moulton Niguel Water District (District) has prepared this mitigated negative declaration (MND) to assess and disclose the potential impacts on the environment of the Advanced Water Treatment Facility Salinity Management System Project (project) pursuant to the California Environmental Quality Act (CEQA) (PRC Section 21000 et seq.). This chapter of the MND provides information on the project's background, explains the project's purpose and need, and describes the District's CEQA obligations associated with approving and implementing the project.

1.1 Project Background Overview

The District is a California Special District established in 1960 that provides potable water, recycled water, and wastewater services to residences, businesses, and public uses in a portion of southern Orange County. Its service area encompasses the entirety of the cities of Aliso Viejo and Laguna Niguel, as well as portions of the cities of Dana Point, Laguna Hills, Mission Viejo, and San Juan Capistrano. Some of the municipal wastewater collected by the District is conveyed to the Regional Treatment Plant (RTP), which is an activated-sludge wastewater treatment facility commissioned in 1982. The RTP has a design capacity of 12.0 million gallons per day but currently treats an average of approximately 7.5 million gallons per day.

Within the RTP, the District owns, operates, and maintains the Advanced Water Treatment (AWT) facility, which treats a portion of the District's wastewater to recycled water standards. The District then distributes recycled water to municipal customers for non-potable uses such as landscape irrigation. The AWT was constructed in 1995 and currently has a 9.0-million-gallon-per-day advanced water treatment capacity. The facilities consist of pump stations, a disk filter system, a chlorine contact tank, a recycled water reservoir, and other supporting systems. Total dissolved solids (TDS) levels in the wastewater flowing into the RTP have increased in recent years, which has resulted in increased TDS levels in the recycled water produced at the AWT. TDS include salts, minerals, dissolved metals, and organic matter that, when present in high concentrations in recycled water, make the water less suitable for beneficial reuse. The project would involve installation of additional treatment infrastructure at the AWT facility to reduce TDS in its recycled water.

1.2 Purpose and Need

The project's purpose is to reduce the concentration of TDS in recycled water distributed by the District. This is necessary for the District to assure current and future delivery of quality recycled water to its municipal customers. The District currently imports 100% of its potable water demand. The beneficial use of recycled water has been an important program for the District since the 1960s. The use of recycled water currently offsets nearly 25% of the District's total water demand. This project will help to ensure the continued sustainable use of recycled water to offset strained import water supplies.

1.3 California Environmental Quality Act Compliance

The District has contracted with a design-build team to design, construct, and commission the proposed Salinity Management System facility. Approval by the District Board of Directors (District Board) to commence construction would be a discretionary action of the District subject to CEQA compliance. The District prepared a CEQA initial study to analyze and consider the environmental impacts of implementing the project, which is included as Chapter 3 of

this document. Based on the results of the initial study, the District determined an MND is the appropriate environmental document for compliance with CEQA. As stated in Section 21064 of the CEQA statute, an MND may be prepared for a project subject to CEQA when an initial study identifies no potentially significant effects on the environment when mitigation is identified that can reduce impacts to less-than-significant levels.

Because design is ongoing at the time of this MND's publication, the environmental impact review presented in the MND is based on conceptual design information and engineering assumptions provided by District staff and assistance from their design consultants. As additional design will be completed following the District Board's adoption of the MND, District staff will review project details, compare them to the information presented in the MND, and determine conformance with the project's CEQA record. Minor deviations from the design assumed in the MND may be addressed either by a consistency determination by District staff or by an addendum to the MND. If subsequent changes in the project are substantial to the extent that they "require major revisions of the previous [MND] due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects," then the District would be required by Section 15162 of the State CEQA guidelines to prepare a subsequent MND, initiate an additional CEQA public review period, and send the subsequent MND to the District Board for adoption.

1.4 California Environmental Quality Act Public Review Process

The District is making this MND available for public review and comment pursuant to Section 15073 of the State CEQA Guidelines. A copy of the MND and related documents are available for review on the District's website (https://www.mnwd.com/engineering-notices/). The District has identified a 30-day review and comment period for the MND commencing September 10, 2024, and terminating October 10, 2024.

Comments on the MND may be submitted to District staff in writing before the end of the public review period. In reviewing and commenting on the MND, interested agencies and members of the public should focus on the adequacy of the document in identifying and analyzing the project's potential impacts on the environment. Written comments on the MND will be accepted in hard copy or email format and should be received at the following street address or email address by 5:00 p.m., October 10, 2024:

Moulton Niguel Water District
Attn: Alex Thomas
26161 Gordon Road
Laguna Hills, California 92653
Email: AThomas@mnwd.com

Following the close of the public comment period, District staff will review all comments and may revise the MND if necessary to clarify the document's content. District staff will then prepare a final version of the MND that includes all comment letters received during the public review period and send the MND to the District Board for adoption and consideration in their decision to proceed with the project.

2 Project Description

2.1 Project Location and Environmental Setting

The project would be located within the existing RTP property in the City of Laguna Niguel (City), as shown on Figure 1, Regional Location. The RTP, located at 29201 La Paz Road, is an approximately 13-acre municipal wastewater treatment facility within an area largely characterized by single-family residential development interspersed with public uses, commercial development, and open space. The site is situated in a small canyon just south of the Laguna Niguel Regional Park, which is owned and operated by the Orange County Parks Department (OC Parks). The 227-acre Laguna Niguel Regional Park features open space, unpaved trails, paved access roads and parking lots, an amphitheater, maintained lawns, picnic areas, and tennis and pickleball courts, surrounding the 44-acre Laguna Niguel Lake. The lake is a human-made reservoir formed by the Sulphur Creek Dam, which impounds Sulphur Creek, a small tributary of Aliso Creek. Laguna Niguel Lake is stocked for recreational fishing. A concrete-lined segment of Sulphur Creek flows from south to north past the RTP before discharging into Laguna Niguel Lake. Farther north of the Laguna Niguel Regional Park is the La Paz Sports Park, commercial and mixed-use development, and the Chet Holifield U.S. Federal Building, which is approximately 1.25 miles northwest of the RTP.

Hillside open space is immediately west of the RTP, with single-family residential development farther west. East of the RTP is a small open space area sloping up to Kings Road and La Paz Road, with additional single-family residential development located on the east side of those roads. South of the RTP is the City's Crown Valley Community Park and the Laguna Niguel Family YMCA facility.

Access to the RTP site is provided by a paved, gated road extending west from La Paz Road. The road descends a steep slope with a single switchback, then crosses the Sulphur Creek Channel via a bridge before entering the RTP facility. A maintenance road and public trail/bike path connecting Crown Valley Park and Laguna Niguel Regional Park passes the RTP facility on the east, paralleling the Sulphur Creek Channel and crossing beneath the RTP access road.

2.2 Project Characteristics

The project would involve the construction and operation of additional wastewater treatment infrastructure at the existing RTP and construction of a new parking and laydown area adjacent to the RTP's primary access road. The location of these features is shown in Figure 2, Project Site. The treatment infrastructure site is approximately 1.1 acres, and the parking and laydown area is approximately 0.7 acres.

The proposed treatment facilities would connect to the AWT system to further treat recycled water produced by the facility and reduce its TDS content. The District anticipates the facility will be designed to employ the reverse osmosis (RO) method as the primary treatment process. Treated water would be stabilized by chemical injection, and then pumped back into the AWT discharge point for conveyance to the District's recycled water reservoirs. Not all the recycled water treated by the AWT system needs to be treated for TDS reduction, because the water treated by the proposed RO system can be blended with regular AWT-treated water to meet the District's water quality objectives. Accordingly, the proposed system would include bypass piping to send treated recycled water directly to the existing AWT discharge point.

The project is anticipated to include the following components:

- An equalization tank on the downstream end of the existing AWT system and the upstream end of the proposed system, for storing water before pumping into the RO treatment process
- A micro filtration system that would be utilized to pre-treat the water suitable for the RO treatment process
- An RO treatment process that would include a series of feed pumps and cartridge filters
- A chemical dosing station for post-treatment water stabilization[1]
- A pump station to lift treated effluent water to the AWT discharge location.
- An approximately 0.7-acre paved parking and laydown yard adjacent to the RTP primary access road

A preliminary site plan for the treatment system is shown in Figure 3, SMS Treatment Facility Preliminary Site Plan. This MND assumes the proposed system components would be housed inside in up to one multilevel and two single-level pre-engineered metal buildings approximately 15,000 square feet in floor area. The buildings would include a control room with connection to the District's Supervisory Control and Data Acquisition (SCADA) system; an electrical power system; a heating, ventilation, and air conditioning (HVAC) system; utility connections (plant water, fire water, sewer, power, and communications); sound attenuation; interior and exterior lighting; a security system; and exterior landscaping. Project-related features beyond the building site would include trench-installed underground piping and a potential new pipe bridge across the flood channel to connect the proposed system to the AWT system, asphalt and concrete paving for vehicle and pedestrian access, and drainage improvements.

Brine produced by the treatment process would be added to the RTP's existing treated byproduct effluent, which is conveyed to the Aliso Creek Ocean Outfall and discharged into the Pacific Ocean approximately 1.5 miles offshore. The Aliso Creek Ocean Outfall is operated by South Orange County Wastewater Authority (SOCWA) pursuant to San Diego Regional Water Quality Control Board (RWQCB) Order No. R9-2022-0006, National Pollutant Discharge Elimination System (NPDES) No. CA0107611.

2.3 Project Construction and Phasing

Project construction would entail site preparation, delivery of materials, installation of the treatment system, trench installation of pipes connecting the facility to the existing AWT system, construction of utility connections, paving of access roads and maintenance areas, installation of stormwater drainage improvements, installation of landscaping and site stabilization, and potential installation of a utility bridge across the flood channel. Once the treatment facilities are constructed and connected to the AWT, crews would test and commission the system.

Site preparation would entail vegetation clearing, including removal of mature trees. Trees in the proposed work area are limited to eucalyptus (*Eucalyptus* spp.) and other non-native, ornamental species, and no native vegetation communities were observed in the biological resources survey (see Section 3.4, Biological Resources). Following vegetation clearing, site preparation would involve grading to create a level pad for the proposed facilities, and likely installation of a retaining wall to ensure stability of the modified slope adjacent to the pads. Trenches would be dug within the treatment infrastructure site for internal piping and within the RTP access road to reach the existing AWT

[1] At this component of the system, chemicals such as sodium hydroxide (lye) or calcium hydroxide (lime) would be injected into the treated water to chemically stabilize the treated water, preventing negative effects like pipe corrosion in the transmission and delivery systems, and damage to plants irrigated by the treated water. Chemicals would be stored in on-site tanks that would be occasionally filled by delivery trucks.

facilities. Pipe trenching in the road would entail breaking asphalt and repaving the road after pipe installation. A new utility bridge over the Sulphur Creek Channel may be potentially constructed near the existing access road bridge over the channel. This MND assumes project earthwork, including development of pads for the proposed treatment system and pipe trenching, would be balanced, requiring no export haul trips.

Construction equipment staging and materials laydown is anticipated to occur within the developed RTP site and proposed parking area. Temporary impact areas would be hydroseeded with an erosion-control seed mix after construction is complete or re-landscaped. The project would not remove any native vegetation, so native habitat restoration is not anticipated.

Table 2-1 presents the anticipated construction phasing, equipment usage, and duration assumed for the project for purposes of environmental impact analysis in this MND. These assumptions were developed in consultation with District engineers for consideration in Section 3.3, Air Quality; Section 3.6, Energy; Section 3.8, Greenhouse Gas Emissions; and Section 3.13, Noise. Construction is anticipated to occur over a duration of 10 months, although gaps in work may occur that would extend the total period from the beginning to the end of the project to 18 months. The 10-month duration represents a more intense construction phase and is used in the environmental impact analysis presented in this MND. Typical construction work hours would be Monday through Friday, 7:00 a.m. to 5:00 p.m. Night work and weekend work are not anticipated.

Table 2-1. Anticipated Construction Phasing and Equipment

Construction Phase	Anticipated Equipment	Estimated Duration
Site mobilization, vegetation removal, clearing, and grubbing	Dozer	2 weeks
	Grader	
	Skid steer loader	
	Haul trucks	
Site earthwork	Dozer	4 weeks
	Skid steer loader	
	Jack hammer	
	Haul trucks	
Pipe installation	Backhoe loaders	6 weeks
	Skid steer loader	
	Crane	
Treatment system installation	Crane	25 weeks
	Telehandler	
	Skid steer loader	
Civil	Crane	12 weeks
	Telehandler	
	Cement mixer	
	Boom lift	
Civil site work	Crane	4 weeks
	Telehandler	
	Cement mixer	
	Boom lift	

Table 2-1. Anticipated Construction Phasing and Equipment

Construction Phase	Anticipated Equipment	Estimated Duration
Access road paving	Skid steer loader	4 weeks
	Drum roller	
	Dump trucks	
	Compactor	
	Asphalt paver	
Landscaping	Skid steer loader	6 weeks

2.4 Project Approvals and California Environmental Quality Act Responsible Agencies

The project requires approval from the District Board to commence construction, making the District the CEQA lead agency. CEQA responsible agencies issuing additional permits or approvals for the project include the San Diego RWQCB, City of Laguna Niguel Department of Public Works, OC Parks, and Orange County Flood Control District. Anticipated approvals are identified below in Table 2-2. RWQCB would need to amend existing permits for the District's recycled water process and distribution and for the RTP's discharge into the Aliso Creek Ocean Outfall. The City would be responsible for issuing a permit for use of their roads for construction-related deliveries and material hauling, if hauling quantities meet the applicable threshold requiring such a permit.

Table 2-2. List of Permits and Approvals

Agency/Jurisdiction	Permit/Approval
San Diego Regional Water Quality Control Board	Report of Waste Discharge Approval
	Amendment of Order No. 97-52, Waste Discharge and Water Recycling Requirements for the South Orange County Reclamation Authority for Disinfected Tertiary Recycled Water
	Amendment of Order No. R9-2022-0006, NPDES No. CA0107611 – Waste Discharge Requirements for the South Orange County Wastewater Authority Discharge to the Pacific Ocean through the Aliso Creek Ocean Outfall
City of Laguna Niguel, Department of Public Works	Transportation permit and haul route permit, if required.

Note: NPDES = National Pollutant Discharge Elimination System.

3 Initial Study Checklist

1. **Project title:**

   Moulton Niguel Water District Advanced Water Treatment Facility Salinity Management System Project

2. **Lead agency name and address:**

   Moulton Niguel Water District
   26161 Gordon Road
   Laguna Hills, California 92653

3. **Contact person and phone number:**

   Alex Thomas
   949.831.2500

4. **Project location:**

   Regional Treatment Plant, La Paz Road north of Kings Road, Laguna Niguel

5. **Project sponsor's name and address:**

   Same as lead agency

6. **General plan designation:**

   Open Space and Public/Institutional

7. **Zoning:**

   OS (Open Space District) and PI (Public/Institutional District)

8. **Description of project. (Describe the whole action involved, including but not limited to later phases of the project, and any secondary, support, or off-site features necessary for its implementation. Attach additional sheets if necessary):**

   Refer to Chapter 2, Project Description.

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

   Refer to Section 2.1, Project Location and Environmental Setting.

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

    See Section 2.4, Project Approvals and California Environmental Quality Act Responsible Agencies.

11. **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.?**

    Refer to Section 3.5, Cultural Resources, and Section 3.18, Tribal Cultural Resources.

Environmental Factors Potentially Affected

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

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

Determination (To be completed by the Lead Agency)

On the basis of this initial evaluation:

☐ I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

☒ I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

☐ I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

☐ I find that the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect (1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier ENVIRONMENTAL IMPACT REPORT or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

Signature

9/6/2024

Date

Evaluation of Environmental Impacts

1. A brief explanation is required for all answers except "No Impact" answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project would not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an Environmental Impact Report (EIR) is required.
4. "Negative Declaration: Less Than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level.
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
    a. Earlier Analysis Used. Identify and state where they are available for review.
    b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
    c. Mitigation Measures. For effects that are "Less Than Significant With Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
9. The explanation of each issue should identify:
    a. the significance criteria or threshold, if any, used to evaluate each question; and
    b. the mitigation measure identified, if any, to reduce the impact to less than significance

3.1 Aesthetics

		Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
I.	**AESTHETICS** – Except as provided in Public Resources Code Section 21099, would the project**:**				
a)	Have a substantial adverse effect on a scenic vista?	☐	☐	☒	☐
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c)	In non-urbanized areas, substantially degrade the existing visual character or quality of public views of the site and its surroundings? (Public views are those that are experienced from publicly accessible vantage point). If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?	☐	☐	☒	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☐	☒	☐

a) Would the project have a substantial adverse effect on a scenic vista?

Less than Significant. The project site is not visible from a prominent scenic vista. Views of the site are available from private residences positioned on the ridges west and northwest of the site, and to a lesser extent, from the roadway and sidewalk of nearby Kings Road. From elsewhere in the surrounding area, views of the site are obscured by intervening vegetation and topography. An access road used for maintenance of the Sulphur Creek flood control channel adjacent to the existing RTP and doubling as a public hiking, bicycling, and equestrian trail abuts the site. This road is situated below grade of the project's proposed additions to the plant and proposed parking area, so visibility of the project site from this public vantagepoint is limited. La Paz Road in the vicinity of the project is designated as a landscape corridor by the City's General Plan Open Space/Parks/Conservation Element (City of Laguna Niguel 1992), but the site is not visible from the roadway or sidewalk due to the presence of eucalyptus trees and other ornamental vegetation along the side of the road that block the built elements on the site from view. The site is also not visible from trails or other viewpoints in Laguna Niguel Regional Park due to intervening vegetation and topography.

Visual simulations of the proposed project from vantage points along the Kings Road sidewalk are shown on Figure 4, Visual Simulation 1, Kings Road Sidewalk, and Figure 5, Visual Simulation 2, Kings Road Sidewalk. These simulations show that existing views of the project site are dominated by existing plant

facilities/structures and by non-native vegetation, primarily eucalyptus trees, within the plant property and Laguna Niguel Regional Park beyond the plant site. As shown in Figure 4, the project would result in a minor amount of tree removal within the developed plant area, placement of an additional building of a similar scale as the existing operations center, and reconfiguration of pavement, hardscape, and landscape within the plant. These changes would have limited visibility from surrounding areas and, when viewed in the context of the existing developed plant site that is already visible from Kings Road, would not represent an adverse effect on the visual setting. Neither the construction of a new building nor the construction of a new parking area within the development plant area would result in any obstruction or substantial interruption of the available views across the plant and adjacent Laguna Niguel Regional Park. Rather, the proposed changes to the developed plant site would be consistent and compatible with the existing character of the site and would not result in the substantial degradation of the existing visual setting or view.

Removing non-native vegetation and paving the parking lot east of the developed plant site, as shown in Figure 5, would be even more limited in visibility from these public views due to the presence of vegetation along much of Kings Road and La Paz Road. For the limited area along Kings Road that does have a view of the proposed parking site, the existing vegetation within the footprint of the proposed parking site (primarily ornamental shrubs) is not a prominent visual component. Project changes would be visible, but the nature of the changes and the limited views of the changes makes this a less-than-significant impact. For the private views of the site from the west and northwest, the existing RTP is visible in the distance, along with hillsides adjacent to Kings Road and La Paz Road and areas of Laguna Niguel Regional Park. The visible changes to the plant site resulting from implementation of the proposed project would generally be similar as discussed for available views from the Kings Road sidewalk.

Based on the assessment presented above, the proposed project would not have a substantial adverse effect on a scenic vista and impacts would be less than significant.

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

No Impact. There are no eligible or officially designated state scenic highways in the vicinity of the proposed project. According to the California Department of Transportation (Caltrans 2024), the nearest eligible state scenic highway is State Route (SR) 1, located approximately 3.4 miles southwest of the project site, and the nearest officially designated state scenic highway is a portion of SR-91, located approximately 22 miles north of the project site. Due to intervening development and distance, the project site is not visible from the state-designated scenic segments of SR-91 or SR-1. Therefore, the project would not substantially damage scenic resources within a state scenic highway, and no impact would occur. See impact discussion in Section 3.1(a) regarding impacts on views from locally designated scenic roads.

c) In non-urbanized areas, would the project 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. The project is located in an urbanized area. The project would not change or conflict with the zoning of the project site and would not represent a substantial change in the visual setting, as

discussed above in Section 3.1(a). Scenic quality in the vicinity of the project site is addressed in the City's General Plan Open Space/Parks/Conservation Element, which designates La Paz Road in the vicinity of the site as a landscape corridor (City of Laguna Niguel 1992). Goal 4 in the Open Space/Parks/Conservation Element is the "[c]onservation and enhancement of visual resources along scenic highways." Action 4.1.1 under this goal is to "[i]mpose conditions on new development along landscaped corridors to preserve unique visual features." While the project would be visible from limited public views near the site, it would not be visible from the La Paz Road landscape corridor. Implementation of project components would not alter the existing landscape screens provided by mature eucalyptus trees and other vegetation along the facility's frontage of La Paz Road (a locally designated landscape corridor), and the project would not affect other unique visual features associated with the corridor. Therefore, there is no impact.

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

Less than Significant. The project would add limited exterior lighting to the proposed plant components and parking areas for site security purposes, adding a minor amount of lighting to the existing lighting at the developed plant facility. Lighting would be directed downward to reduce visibility from and trespass into surrounding areas. New lighting would not be substantial in terms of illumination and total number of fixtures, and thus, lighting-related impacts would be less than significant.

The proposed plant building would not feature a reflective finish. Therefore, this impact would be less than significant.

3.2 Agriculture and Forestry Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURE AND FORESTRY RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact 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))?	☐	☐	☐	☒
d) Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒

a) Would the project 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 Important Farmland Finder database, the project site and the immediate surroundings are classified as "Urban and Build-Up Land" and "Other Land" (DOC 2023a). The project would not be located on land classified as Farmland pursuant to the Farmland Mapping and Monitoring Program and would therefore not convert any Farmland to non-agricultural use. In addition, the City's CEQA Manual states that the City's General Plan does not designate any parcels within the City with an agricultural or forestry land use designation and that all projects in the City will not impact agriculture and forestry resources (City of Laguna Niguel 2023). Therefore, no impact would occur.

b) Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

No Impact. According to the California Department of Conservation's California Williamson Act Enrollment Finder, the project site is not located on or adjacent to any lands under a Williamson Act contract (DOC 2023b). In addition, the project site and surrounding areas are not zoned for agricultural use (City of Laguna Niguel 2012). As such, no impact would occur.

c) Would the project 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. As discussed in Section 3.2(b) above, the project site and surrounding areas are not zoned for agricultural use. No impact would occur.

d) Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact. Refer to Sections 3.2(a) through 3.2(c). The City does not contain lands designated for agricultural or forestry uses, and all projects in the City would not impact agriculture and forestry resources. No impact would occur.

e) Would the project 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. Refer to Sections 3.2(a) through 3.2(c). The project would not result in conversion of Farmland to non-agricultural use or conversion of forest land to non-forest use, and no impact would occur.

3.3 Air Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management district or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☐	☐	☒	☐
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard?	☐	☐	☒	☐
c) Expose sensitive receptors to substantial pollutant concentrations?	☐	☐	☒	☐
d) Result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?	☐	☐	☒	☐

This section is based on technical analysis conducted by Dudek, including quantitative estimates of air pollutant emissions based on assumptions developed in consultation with the project design engineers. The results of the emissions estimates are provided as Appendix A-1, Air Quality and Greenhouse Gas Emissions CalEEMod Output Files, and Appendix A-2, Construction Health Risk Assessment, to this MND.

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less than Significant. The project site is located within the South Coast Air Basin (SCAB), which includes all of Orange County and the western, non-desert portions of Los Angeles, Riverside, and San Bernardino

Counties. The site is within the jurisdictional boundaries of the South Coast Air Quality Management District (SCAQMD).

SCAQMD administers the SCAB's air quality management plan (AQMP), which is a comprehensive document outlining an air pollution control program for attaining the California Ambient Air Quality Standards (CAAQS) and National Ambient Air Quality Standards (NAAQS). The most recently adopted AQMP for the SCAB is the 2022 AQMP (SCAQMD 2022). The 2022 AQMP provides the regional path towards improving air quality and meeting federal standards for air pollutants. The 2022 AQMP builds upon measures already in place from previous AQMPs. It also includes a variety of additional strategies such as regulation, accelerated deployment of available cleaner technologies (e.g., zero emissions technologies, when cost-effective and feasible, and low oxides of nitrogen [NO_x] technologies in other applications), best management practices (BMPs), co-benefits from existing programs (e.g., climate and energy efficiency), incentives, and other Clean Air Act measures to achieve the 2015 federal ozone (O_3) standard by 2037 (SCAQMD 2022).

The purpose of a consistency finding with regard to the AQMP is to determine if a project is consistent with the assumptions and objectives of the 2022 AQMP, and if it would interfere with the region's ability to comply with federal and state air quality standards. SCAQMD has established criteria for determining consistency with the currently applicable AQMP in Chapter 12, Sections 12.2 and 12.3 of the SCAQMD CEQA Air Quality Handbook. These criteria are as follows (SCAQMD 1993):

- **Consistency Criterion No. 1:** Whether the project would result in an increase in the frequency or severity of existing air quality violations, cause or contribute to new violations, or delay timely attainment of the ambient air quality standards or interim emission reductions in the AQMP
- **Consistency Criterion No. 2:** Whether the project would exceed the assumptions in the AQMP or increments based on the year of project buildout and phase

To address the first criterion, project-generated criteria air pollutant emissions have been estimated and analyzed for significance and are addressed under Section 3.3(b). Detailed results of this analysis are included in Appendix A-1. As presented in that analysis and summarized in Section 3.3(b), the proposed project would not generate construction criteria air pollutant emissions that exceed SCAQMD's construction thresholds. In addition, the project would result in a minimal increase in routine maintenance of the area during long-term operations. Therefore, the project would not conflict with Criterion No. 1.

The second criterion regarding the potential of the proposed project to exceed the assumptions in the AQMP or increments based on the year of project buildout and phase is primarily assessed by determining consistency between the proposed project's land use designations and its potential to generate population growth. In general, projects are considered consistent with, and not in conflict with or obstructing implementation of, the AQMP if the growth in socioeconomic factors is consistent with the underlying regional plans used to develop the AQMP (SCAQMD 1993). SCAQMD primarily uses demographic growth forecasts for various socioeconomic categories (e.g., population, housing, and employment by industry) developed by the Southern California Association of Governments (SCAG) for its Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS). Although SCAG's 2024–2050 RTP/SCS has been most recently adopted (SCAG 2024), SCAQMD used assumptions from SCAG's 2020–2045 RTP/SCS (Connect

SoCal) in its 2022 AQMP (SCAQMD 2022).[2] The SCAG 2020–2045 RTP/SCS and associated Regional Growth Forecast are generally consistent with the local plans; therefore, the 2022 AQMP is generally consistent with local government plans.

The project would consist of construction and operation of additional wastewater treatment infrastructure at the existing RTP and construct a new parking and laydown area adjacent to the RTP's primary access road and would not change the underlying land use and zoning designations of the site or result in an increase in population growth in the area. Accordingly, the project does not conflict with the SCAG RTP/SCS forecasts used in the SCAQMD AQMP development and does not propose activities that would induce additional population in the project area. Therefore, the project would not conflict with the second criterion. Overall, impacts with regard to the project's potential to conflict with or obstruct implementation of the SCAQMD's 2022 AQMP would be less than significant.

b) Would the project 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. Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and SCAQMD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are used to determine whether a project's individual emissions would have a cumulatively considerable contribution to air quality. If a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution. Conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a).

A quantitative analysis was conducted to determine whether the proposed project might result in emissions of criteria air pollutants that may cause exceedances of the NAAQS or CAAQS or cumulatively contribute to existing nonattainment of ambient air quality standards. Criteria air pollutants include O_3, nitrogen dioxide (NO_2), carbon monoxide (CO), sulfur dioxide, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), particulate matter with an aerodynamic diameter less than or equal to 2.5 microns ($PM_{2.5}$), and lead. Pollutants that are evaluated herein include volatile organic compounds (VOCs) and NO_x, which are important because they are precursors to O_3, as well as CO, sulfur oxides, PM_{10}, and $PM_{2.5}$.

Regarding NAAQS and CAAQS attainment status,[3] the SCAB is designated as a nonattainment area for national and California O_3 standards and $PM_{2.5}$ standards. The SCAB is designated as a nonattainment area for California PM_{10} standards; however, it is designated as an attainment area for national PM_{10} standards.

[2] Information necessary to produce the emission inventory for the SCAB is obtained from SCAQMD and other governmental agencies, including the California Air Resources Board (CARB), the California Department of Transportation, and SCAG. Each of these agencies is responsible for collecting data (e.g., industry growth factors, socioeconomic projections, travel activity levels, emission factors, emission speciation profile, and emissions) and developing methodologies (e.g., model and demographic forecast improvements) required to generate a comprehensive emissions inventory. SCAG incorporates these data into their Travel Demand Model for estimating/projecting vehicle miles traveled (VMT) and driving speeds. SCAG's socioeconomic and transportation activities projections in their 2020–2045 RTP/SCS are integrated in the 2022 AQMP (SCAQMD 2022).

[3] An area is designated as in attainment when it is in compliance with the NAAQS and/or the CAAQS. These standards for the maximum level of a given air pollutant that can exist in the outdoor air without unacceptable effects on human health or the public welfare are set by EPA and CARB, respectively. Attainment = meets the standards; attainment/maintenance = achieves the standards after a nonattainment designation; nonattainment = does not meet the standards.

The SCAB is designated as an attainment area for national and California CO standards, national and California NO_2 standards, and national and California sulfur dioxide standards (EPA 2023a; CARB 2022a).

The project would result in emissions of criteria air pollutants for which the California Air Resources Board (CARB) and U.S. Environmental Protection Agency (EPA) have adopted ambient air quality standards (i.e., the NAAQS and CAAQS). Projects that emit these pollutants have the potential to cause, or contribute to, violations of these standards. SCAQMD has established Air Quality Significance Thresholds, as revised in March 2023, that set forth quantitative emission significance thresholds below which a project would not have a significant impact on ambient air quality (SCAQMD 2023a). The quantitative air quality analysis provided herein applies the SCAQMD thresholds identified in Table 3-1 to determine the potential for the project to result in a significant impact under CEQA.

Table 3-1. SCAQMD Air Quality Significance Thresholds

Criteria Pollutants Mass Daily Thresholds		
Pollutant	**Construction (pounds per day)**	**Operation (pounds per day)**
VOCs	75	55
NO_x	100	55
CO	550	550
SO_x	150	150
PM_{10}	150	150
$PM_{2.5}$	55	55
Lead[a]	3	3
Toxic Air Contaminants and Odor Thresholds		
TACs[b]	Maximum incremental cancer risk ≥10 in 1 million Cancer Burden >0.5 excess cancer cases (in areas ≥1 in 1 million) Chronic and acute hazard index ≥1.0 (project increment)	
Odor	Project creates an odor nuisance pursuant to SCAQMD Rule 402	
Ambient Air Quality Standards for Criteria Pollutants[c]		
NO_2 1-hour average NO_2 annual arithmetic mean	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 0.18 ppm (state) 0.030 ppm (state) and 0.0534 ppm (federal)	
CO 1-hour average CO 8-hour average	SCAQMD is in attainment; project is significant if it causes or contributes to an exceedance of the following attainment standards: 20 ppm (state) and 35 ppm (federal) 9.0 ppm (state/federal)	
PM_{10} 24-hour average PM_{10} annual average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation) 1.0 μg/m³	
$PM_{2.5}$ 24-hour average	10.4 μg/m³ (construction)[d] 2.5 μg/m³ (operation)	

Source: SCAQMD 2023a.
Notes: SCAQMD = South Coast Air Quality Management District; VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns;

$PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns; TAC = toxic air contaminant; NO_2 = nitrogen dioxide; ppm = parts per million by volume; $\mu g/m^3$ = micrograms per cubic meter.
Greenhouse gas emissions thresholds for industrial projects, as added in the March 2015 revision to the SCAQMD Air Quality Significance Thresholds, were not include included in this table as they are addressed within the greenhouse gas emissions analysis and not the air quality analysis.

[a] The phaseout of leaded gasoline started in 1976. Since gasoline no longer contains lead, the project is not anticipated to result in impacts related to lead; therefore, it is not discussed in this analysis.
[b] TACs include carcinogens and noncarcinogens.
[c] Ambient air quality standards for criteria pollutants are based on SCAQMD Rule 1303, Table A-2, unless otherwise stated.
[d] Ambient air quality thresholds are based on SCAQMD Rule 403.

A project would result in a cumulatively considerable net increase for O_3, which is a nonattainment pollutant, if the proposed project's construction or operational emissions would exceed the SCAQMD's VOC or NO_x thresholds shown in Table 3-1. These emission-based thresholds for O_3 precursors are intended to serve as a surrogate for an O_3 significance threshold (i.e., the potential for adverse O_3 impacts to occur) because O_3 itself is not emitted directly, and the effects of an individual project's emissions of O_3 precursors (i.e., VOCs and NO_x) on O_3 levels in ambient air cannot be determined reliably or meaningfully through air quality models or other quantitative methods.

The California Emissions Estimator Model (CalEEMod) Version 2022.1.1.26 was used to estimate emissions from construction and operation of the project. CalEEMod is a statewide computer model developed in cooperation with air districts throughout the state to quantify criteria air pollutant emissions associated with construction and operational activities from a variety of land use projects.

Construction Emissions

Construction of the proposed project would include site mobilization, vegetation removal, clearing and grubbing, site earthwork, pipe installation, treatment system installation, access road paving, landscaping, and architectural coating. These construction activities would result in the temporary addition of pollutants to the local airshed caused by on-site sources (e.g., off-road construction equipment, soil disturbance, and VOC off-gassing from architectural coatings and asphalt pavement application) and off-site sources (e.g., vendor trucks, haul trucks, and worker vehicle trips). Specifically, entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. Internal combustion engines used by construction equipment, haul trucks, vendor trucks (i.e., delivery trucks), and worker vehicles would result in emissions of VOC, NO_x, CO, PM_{10}, and $PM_{2.5}$. Construction emissions can vary substantially from day to day depending on the level of activity; the specific type of operation; and, for dust, the prevailing weather conditions.

Proposed project construction emissions were estimated using information provided by the project engineer. Air quality emissions modeling assumed that construction of the project would commence in March 2025 and end in December 2025. Default values for horsepower and load factor provided in CalEEMod were used for all construction equipment, and the equipment mix was provided by the District. For the analysis, it was generally assumed that heavy-duty construction equipment would be operating at the project site 5 days per week. Table 3-2, Construction Scenario Details, provides the construction phases; start and end dates; number of average daily one-way worker, vendor, and haul truck trips; equipment type and quantity; and usage hours per day.

Table 3-2. Construction Scenario Details

Construction Phase	Start Date	End Date	One-Way Vehicle Trips			Equipment		
			Average Daily Worker Trips	Average Daily Vendor Trucks Trips	Average Daily Haul Trucks	Equipment Type	Qty.	Usage Hours per day
Site mobilization, vegetation removal, clearing and grubbing	03/07/2025	03/20/2025	4	2	2	Rubber-tired dozer Excavator Rubber-tired loader Dump truck	1 1 1 1	8 8 8 2
Site earthwork	03/21/2025	04/17/2025	4	2	0	Rubber-tired dozer Excavator Rubber-tired loader Dump truck	1 1 1 1	8 8 8 2
Pipe installation	06/02/2025	07/28/2025	4	2	0	Backhoe	1	8
Treatment system installation	10/22/2025	12/19/2025	8	2	0	Crane Telehandler	1 1	4 4
Landscaping	10/22/2025	11/19/2025	4	2	0	Skid steer loader Backhoe	1 1	8 8
Access road paving	11/20/2025	12/05/2025	4	2	2	Skid steer loader Drum roller Compactor Paving equipment	1 1 1 1	4 4 4 8
Architectural coating	12/6/2025	12/31/2025	2	2	0	Air compressor	1	6

Emissions generated during construction and operation of the project are subject to the rules and regulations of SCAQMD. Rule 403, Fugitive Dust,[4] requires the implementation of measures to control the emission of visible fugitive/nuisance dust, such as wetting soils that would be disturbed. It was assumed that the active sites would

[4] SCAQMD Rule 403 requires implementation of various best available fugitive dust control measures for different sources for all construction activity sources within its jurisdictional boundaries. Dust control measures include, but are not limited to, maintaining stability of soil through pre-watering of site prior to clearing, grubbing, cut and fill, and earth-moving activities; stabilizing soil during and immediately after clearing, grubbing, cut and fill, and other earth-moving activities; stabilizing backfill during handling and at completion of activity; and pre-watering material prior to truck loading and ensuring that freeboard exceeds 6 inches. Although SCAQMD Rule 403 requires fugitive dust control beyond watering control measures, compliance with Rule 403 is represented in CalEEMod by assuming twice daily watering of active sites.

be watered at least two times daily, resulting in an approximately 61% reduction of fugitive dust (CalEEMod default value), to represent compliance with SCAQMD standard dust control measures in Rule 403.

CalEEMod calculates maximum daily emissions for summer and winter periods. As such, the estimated maximum daily construction emissions without mitigation for both summer and winter periods are summarized in Table 3-3. Detailed construction model outputs are presented in Appendix A-1.

Table 3-3. Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Unmitigated

Year	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Summer						
2025	1.40	12.20	12.65	0.02	3.15	1.82
Winter						
2025	9.38	12.20	12.62	0.02	3.17	1.82
Maximum Daily Emissions	**9.38**	**12.20**	**12.65**	**0.02**	**3.17**	**1.82**
SCAQMD Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: Appendix A-1.
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns; SCAQMD= South Coast Air Quality Management District
Emissions estimates include watering of the active sites two times per day per Rule 403 compliance.

As shown in Table 3-3, the proposed project's maximum daily construction emissions would not exceed SCAQMD thresholds for any criteria pollutant, and impacts would be less than significant.

Operations

Operation of the project would generate VOC, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ emissions from area sources, energy sources, and mobile sources, which are discussed below. Emissions from these sources were estimated based on CalEEMod default assumptions for ongoing operations of the project land use and project-engineer-provided information. Maintenance and operation activities would include three trips per day to the project site. For further detail on the assumptions and results of this analysis, please refer to Appendix A-1.

Area Sources

Area sources include emissions from consumer products, landscape equipment, and architectural coatings. The area source emissions for consumer products, landscape equipment, and architectural coatings were estimated based on CalEEMod default assumptions for ongoing operations of the project.

Energy Sources

Energy sources include emissions associated with building electricity of the wastewater treatment infrastructure and parking lot lighting. No natural gas would be used during operation of the project. Electricity use for the

project would contribute indirectly to criteria air pollutant emissions; however, CalEEMod does not quantify criteria air pollutants from electricity, since criteria air pollutant emissions occur at the site of the power plant, which is typically off site. The energy source emissions were estimated based on CalEEMod default assumptions for ongoing operations.

Mobile Sources

Operation of the project would also generate criteria air pollutant emissions from mobile sources (vehicular traffic) as a result of new vehicle trips to and from the project, which would result in three round trips per day. CalEEMod default emission factors representing the vehicle mix and emissions were used to estimate emissions associated with vehicular sources.

Table 3-4 summarizes the estimated maximum daily emissions associated with operation of the project by source for 2026. As shown, the project's maximum daily operational emissions of VOCs, NO_x, CO, SO_x, PM_{10}, and $PM_{2.5}$ would not exceed SCAQMD's significance thresholds. Complete details of the emissions calculations are provided in Appendix A-1.

Table 3-4. Estimated Maximum Daily Operational Criteria Air Pollutant Emissions

Source	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per Day					
Summer Emissions						
Mobile	0.03	0.02	0.26	0.00	0.07	0.02
Area	0.47	0.01	0.65	0.00	0.00	0.00
Energy	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total	**0.50**	**0.03**	**0.91**	**0.00**	**0.07**	**0.02**
Winter Emissions						
Mobile	0.03	0.02	0.24	0.00	0.07	0.02
Area	0.37	<0.01	<0.01	<0.01	<0.01	<0.01
Energy	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total	**0.39**	**0.02**	**0.24**	**0.00**	**0.07**	**0.04**
Maximum of Summer or Winter Emissions	**0.50**	**0.03**	**0.91**	**0.00**	**0.07**	**0.04**
SCAQMD Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Source: SCAQMD 2023a (thresholds).
Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = particulate matter with a diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns; SCAQMD = South Coast Air Quality Management District.
<0.01 = reported value less than 0.01.
The total values may not add up exactly due to rounding.
See Appendix A-1 for detailed results.3

As shown in Table 3-4, project-generated operational emissions would not exceed the SCAQMD emission-based significance thresholds for any criteria pollutant.

Cumulative

As stated previously, if a project's emissions would exceed the SCAQMD significance thresholds, it would be considered to have a cumulatively considerable contribution, and, conversely, projects that do not exceed the project-specific thresholds are generally not considered to be cumulatively significant (SCAQMD 2003a). As the project would not exceed SCAQMD project-specific thresholds during construction or operations, the project would not result in a cumulatively considerable increase in emissions of nonattainment pollutants, and impacts would be less than significant.

c) Would the project expose sensitive receptors to substantial pollutant concentrations?

Less than Significant. Sensitive receptors are those individuals more susceptible to the effects of air pollution than the population at large. People most likely to be affected by air pollution include children, older adults, and people with cardiovascular and chronic respiratory diseases. According to SCAQMD, sensitive receptors include residences, schools, playgrounds, childcare centers, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes (SCAQMD 1993). The closest off-site sensitive receptors to the project site are single-family residences on Kings Road, approximately 155 feet east of the project site boundary.

Localized Significance Thresholds

SCAQMD recommends a localized significance threshold (LST) analysis to evaluate the potential of localized air quality impacts to receptors in the immediate vicinity of a proposed project from construction and operation; however, an operational LST analysis is not required for the project due to no substantial on-site sources of localized emissions. For projects that disturb 5 acres or less per day, the SCAQMD Final Localized Significance Threshold Methodology (SCAQMD 2008a) includes lookup tables that can be used to determine the maximum allowable daily emissions that would satisfy the localized significance criteria (i.e., the emissions would not cause an exceedance of the applicable concentration limits for NO_2, CO, PM_{10}, and $PM_{2.5}$) without performing project-specific dispersion modeling.

The LST significance thresholds for NO_2 and CO represent the allowable increase in concentrations above background levels in the vicinity of a project that would not cause or contribute to an exceedance of the relevant ambient air quality standards, while the threshold for PM_{10} represents compliance with Rule 403 (Fugitive Dust). The LST significance threshold for $PM_{2.5}$ is intended to ensure that construction emissions do not contribute substantially to existing exceedances of the $PM_{2.5}$ ambient air quality standards. The allowable emission rates depend on the following parameters:

1. Source-Receptor Area in which the project is located
2. Size of the project site
3. Distance between the project site and the nearest receptor

The proposed project site is located in Source-Receptor Area 21 (Capistrano Valley). The maximum number of acres disturbed on the peak day was estimated using the Fact Sheet for Applying CalEEMod to Localized Significance Thresholds (SCAQMD n.d.), which provides estimated acres per 8-hour per day per piece of earth-moving equipment. Based on the SCAQMD guidance, it was estimated that the maximum acres on the project site that would be disturbed by off-road equipment would be 1 acre per day. According to the Final Localized Significance Threshold Methodology, SCAQMD considers a sensitive receptor to be a location where it is possible an individual could remain for 24 hours (i.e., residence, hospital, etc.), which

are appropriate for comparison to any of the pollutant LSTs. However, for LSTs based on shorter averaging periods, specifically for NO2 and CO, receptor locations also include commercial, industrial, recreational, or any other areas where persons can be situated for an hour or longer at a time (SCAQMD 2008a). The nearest receptor land use is single-family residences west of the project site, and as such, the threshold would be for 47 meters (155 feet).5

According to the Final Localized Significance Threshold Methodology, "Off-site mobile emissions from the project should NOT be included in the emissions compared to the LSTs" (SCAQMD 2008a). Trucks and worker trips associated with the project are not expected to cause substantial air quality impacts to sensitive receptors along off-site roadways since emissions would be relatively brief in nature and would cease once the vehicles pass through the main streets.

The maximum daily on-site emissions generated from construction of the proposed project are presented in Table 3-5 and are compared to the SCAQMD LST criteria for Source-Receptor Area 21 to determine whether project-generated on-site emissions would result in potential LST impacts.

Table 3-5. Construction Localized Significance Thresholds Analysis – Unmitigated

Year	NO_x	CO	PM_{10}	$PM_{2.5}$
	Pounds per Day			
2025	12.12	12.40	3.08	1.80
Maximum Daily Emissions	**12.12**	**12.40**	**3.08**	**1.80**
SCAQMD LST Criteria[a]	*92.76*	*816.56*	*10.16*	*3.88*
Threshold exceeded?	**No**	**No**	**No**	**No**

Source: Appendix A-1.
Notes: NO_x = oxides of nitrogen; CO = carbon monoxide; PM_{10} = particulate matter with a diameter less than or equal to 10 microns; $PM_{2.5}$ = particulate matter with a diameter less than or equal to 2.5 microns; SCAQMD = South Coast Air Quality Management District; LST = localized significance threshold.
The values shown are the maximum summer or winter daily emissions results from the California Emissions Estimator Model. Emissions estimates include watering of the active sites two times per day per Rule 403 compliance.
[a] Localized significance thresholds are shown for a 1-acre disturbed area for receptor distances of 47 meters in Source-Receptor Area 21.

As shown in Table 3-5, proposed construction activities would not generate emissions in excess of site-specific LSTs. Localized criteria air pollutant emissions impacts would be less than significant.

Carbon Monoxide Hotspots

Traffic-congested roadways and intersections have the potential to generate localized high levels of CO. Localized areas where ambient concentrations exceed federal and/or state standards for CO are termed CO "hotspots." CO transport is extremely limited and disperses rapidly with distance from the source. Under certain extreme meteorological conditions, however, CO concentrations near a congested roadway or intersection may reach unhealthy levels affecting sensitive receptors. Typically, high CO concentrations are associated with severely congested intersections operating at an unacceptable level of service (level of service E or worse is unacceptable). Projects contributing to adverse traffic impacts may result in the

5 As there are no LSTs at 47 meters, these values were interpolated based on the published LSTs for 25 meters and 50 meters (SCAQMD 2008a).

formation of a CO hotspot. Additional analysis of CO hotspot impacts would be conducted if a project would result in a significant impact or contribute to an adverse traffic impact at a signalized intersection that would potentially subject sensitive receptors to CO hotspots.

Title 40 of the Code of Federal Regulations Section 93.123(c)(5) states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities which cause temporary increases in emissions. Each site which is affected by construction-related activities shall be considered separately, using established 'Guideline' methods. Temporary increases are defined as those which occur only during the construction phase and last five years or less at any individual site.". While project construction would involve on-road vehicle trips from trucks and workers during construction, construction activities would last approximately 10 months (on and off) and would not require a project-level construction hotspot analysis.

Regarding operations, given the minimal increase in daily trips for infrequent routine maintenance, project-related mobile emissions are not expected to contribute significantly to CO concentrations, and a CO hotspot is not anticipated to occur. In addition, due to continued improvement in vehicular emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SCAB is steadily decreasing. The project would result in a less-than-significant impact to air quality with regard to potential CO hotspots.

Toxic Air Contaminants

In addition to impacts from criteria pollutants, certain projects may include emissions of pollutants identified by the state and federal government as toxic air contaminants (TACs) or hazardous air pollutants. State law has established the framework for California's TAC identification and control project, which is generally more stringent than the federal project and is aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and is adopting appropriate control measures for sources of these TACs.

In an abundance of caution, a voluntary health risk assessment (HRA) was performed for construction of the project, as discussed below and as presented in Appendix A-2.

The most recent guidance from the Office of Environmental Health Hazard Assessment (OEHHA) is the 2015 Risk Assessment Guidelines Manual (OEHHA 2015), which was adopted in 2015 to replace the 2003 HRA Guidance Manual. The Children's Environmental Health Protection Act of 1999 (Senate Bill [SB] 25), which requires explicit consideration of infants and children in assessing risks from air toxics, required revisions of the methods for both noncancer and cancer risk assessment and of the exposure assumptions in the 2003 HRA Guidance Manual. Cancer risk parameters, such as age-sensitivity factors, daily breathing rates, exposure period, fraction of time at home, and cancer potency factors, were based on the values and data recommended by OEHHA as implemented in the Hotspots Analysis and Reporting Program Version 2 (HARP2). SCAQMD's Modeling Guidance for American Meteorological Society/Environmental Protection Agency Regulatory Model (AERMOD) (SCAQMD 2021) and Health Risk Assessment Guidance for Analyzing Cancer Risks from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis (SCAQMD 2003b) provide guidance to perform dispersion modeling for use in HRAs within the SCAB.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. SCAQMD recommends a carcinogenic (cancer) risk threshold of 10 in 1 million. Some TACs increase noncancer

health risk due to long-term (chronic) exposures. The Chronic Hazard Index (HIC) is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. The HIC estimates for all receptor types used the OEHHA-derived calculation method, which uses high-end exposure parameters for the inhalation and next top two exposure pathways and mean exposure parameters for the remaining pathways for noncancer risk estimates. The HIC is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system.[6] A hazard index less than 1.0 means that adverse health effects are not expected. Within this analysis, noncarcinogenic exposures of less than 1.0 are considered less than significant. SCAQMD recommends a HIC significance threshold of 1.0 (project increment) and an acute hazard index of 1.0.

The greatest potential for TAC exposure from project construction is from diesel particulate matter (DPM), as the exhaust from diesel engines is a complex mixture of gases, vapors, and particles, many of which are known human carcinogens. DPM has established cancer risk factors and relative exposure values for long-term chronic health hazard impacts. No short-term, acute relative exposure values are established and regulated, and therefore these are not addressed in this assessment.

The dispersion modeling was performed using AERMOD Version 21112, which is the model SCAQMD requires for atmospheric dispersion of emissions. AERMOD is a steady-state Gaussian plume model that incorporates air dispersion based on planetary boundary layer turbulence structure and scaling concepts, including treatment of surface and elevated sources, building downwash, and simple and complex terrain (EPA 2023b).

Construction Health Risk

Construction Health Risk Assessment

A construction HRA was performed to evaluate the potential health risk associated with construction of the project. The following discussion summarizes the dispersion modeling and HRA methodology; supporting construction HRA documentation, including detailed assumptions, is presented in Appendix A-2.

For risk assessment purposes, PM_{10} in diesel exhaust is considered DPM, originating mainly from off-road equipment operating at a defined location for a given length of time at a given distance from sensitive receptors. Less-intensive, more-dispersed emissions result from on-road vehicle exhaust (e.g., heavy-duty diesel trucks).

The air dispersion modeling methodology was based on generally accepted modeling practices of SCAQMD (SCAQMD 2021). Air dispersion modeling was performed using AERMOD with the Lakes Environmental Software implementation/user interface, AERMOD View Version 11.2. The HRA followed OEHHA 2015 guidelines (OEHHA 2015) and SCAQMD guidance to calculate the health risk impacts at all proximate receptors as further discussed below. The dispersion modeling included the use of standard regulatory default options. AERMOD parameters were selected consistent with the SCAQMD and EPA guidance and identified as representative of the project site and project activities. Principal parameters of this modeling are presented in Table 3-6.

[6] The HIC estimates for all receptor types used the OEHHA-derived calculation method (OEHHA 2015).

Table 3-6. AERMOD Principal Parameters

Parameter	Details
Meteorological Data	AERMOD-specific meteorological data for the Mission Viejo air monitoring station was used for the dispersion modeling (SCAQMD 2023b). A 5-year meteorological data set from 2017 through 2021 was obtained from SCAQMD in a preprocessed format suitable for use in AERMOD.
Urban versus Rural Option	Urban dispersion option was selected due to the developed nature of the project area and per SCAQMD guidelines.
Terrain Characteristics	The elevation of the site is 222 feet (68 meters) above sea level.
Elevation Data	Digital elevation data were imported into AERMOD, and elevations were assigned to receptors and emission sources, as necessary. Digital elevation data were obtained through the AERMOD View in the U.S. Geological Survey's National Elevation Dataset format with a resolution of 1 arc-second resolution, consistent with the SCAQMD guidance (SCAQMD 2021).
Source Release Characterizations	Air dispersion modeling of DPM emissions was conducted assuming the off-road equipment would operate in accordance with the modeling scenario estimated in CalEEMod (Appendix A-1). The construction equipment and on-site truck travel DPM emissions were modeled as a line of adjacent volume sources across the project site to represent project construction with a release height of 3.4 meters, plume height of 6.8 meters, and plume width of 8.6 meters (EPA 2023b).

Note: AERMOD = American Meteorological Society/Environmental Protection Agency Regulatory Model; SCAQMD = South Coast Air Quality Management District; DPM = diesel particular matter; CalEEMod = California Emissions Estimator Model.
See Appendix A-1.

Regarding receptors, the construction scenario used a 1-kilometer by 1-kilometer Cartesian receptor grid with 50-meter spacing to establish the impact area and evaluate locations of maximum health risk impact (SCAQMD 2021). Discrete receptors were placed over residential and daycare facilities in closest proximity to the site.

The health risk calculations were performed using the HARP2 Air Dispersion Modeling and Risk Tool (ADMRT, dated 22118). AERMOD was run with all sources emitting unit emissions (1 gram per second) to obtain the necessary input values for HARP2. The line of volume sources was partitioned evenly based on the 1-gram-per-second emission rate. The ground-level concentration plot files were then used to estimate the long-term cancer health risk to an individual and the noncancer chronic health indices. There is no reference exposure level for acute health impacts from DPM, and, thus, acute risk was not evaluated.

Cancer risk is defined as the increase in probability (chance) of an individual developing cancer due to exposure to a carcinogenic compound, typically expressed as the increased chances in 1 million. Maximum Individual Cancer Risk is the estimated probability of a maximally exposed individual potentially contracting cancer as a result of exposure to TACs over a period of 30 years for residential receptor locations. For the purposes of this construction HRA, given the less-than-lifetime exposure period, and the higher breathing rates and sensitivity of children to TACs, the cancer risk calculation assumes that the exposure would affect children early in their lives. The 13-month exposure duration was assumed to start during the third trimester of pregnancy through 13 months of age based on the duration of construction. The exposure pathway for DPM is inhalation only.

SCAQMD has also established noncarcinogenic risk parameters for use in HRAs since some TACs increase noncancer health risk due to long-term (chronic) exposures and some TACs increase noncancer health risk due to short-term (acute) exposures. As stated previously, no short-term, acute relative exposure level has been established for DPM; therefore, acute impacts of DPM are not addressed in the HRA. Chronic exposure is evaluated in the construction HRA. Noncarcinogenic risks are quantified by calculating a hazard index, expressed as the ratio between the ambient pollutant concentration and its toxicity or reference exposure level, which is a concentration at or below which health effects are not likely to occur. The chronic hazard index is the sum of the individual substance chronic hazard indices for all TACs affecting the same target organ system. A hazard index less of than 1.0 means that adverse health effects are not expected.

The Maximum Individual Cancer Risk and the HIC for residential receptors as a result of project construction are presented in Table 3-7.

Table 3-7. Construction Health Risk Assessment Results – Unmitigated

Impact Parameter	Units	Project Impact	CEQA Threshold	Level of Significance
Maximum Individual Cancer Risk–Residential	Per Million	1.53	10	Less than Significant
Chronic Hazard Index–Residential	Index Value	0.002	1.0	Less than Significant

Source: SCAQMD 2023a.
Notes: CEQA = California Environmental Quality Act.
See Appendix A-2.

As shown in Table 3-7, project construction activities would result in a Residential Maximum Individual Cancer Risk of 1.53 in 1 million, which is below the significance threshold of 10 in 1 million. Project construction would result in a Residential HIC of 0.002, which is below the 1.0 significance threshold. Thus, impacts would be less than significant.

Health Effects of Criteria Pollutants

Short-term project construction and long-term project operations would not exceed any significance thresholds without mitigation.

VOCs and NO_x are precursors to O_3, for which the SCAB is designated as nonattainment with respect to the NAAQS and CAAQS. The health effects associated with O_3 are generally associated with reduced lung function. The contribution of reactive organic gases and NO_x to regional ambient O_3 concentrations is the result of complex photochemistry. The increases in O_3 concentrations in the SCAB due to O_3 precursor emissions tend to be found downwind from the source location to allow time for the photochemical reactions to occur. However, the potential for exacerbating excessive O_3 concentrations would also depend on the time of year that the VOC emissions would occur because exceedances of the O_3 CAAQS/NAAQS tend to occur between April and October when solar radiation is highest. The holistic effect of a single project's emissions of O_3 precursors is speculative due to the lack of quantitative methods to assess this impact. However, the project would not exceed the significance thresholds for VOC or NO_x; therefore, implementation of the project would contribute minimally to regional O_3 concentrations and the associated health effects.

Health effects that result from NO_2 and NO_x include respiratory irritation, which could be experienced by nearby receptors during the periods of heaviest use of off-road construction equipment. However, because project-generated NO_x emissions would not exceed the significance threshold during construction or operations, the project would not result in potential health effects associated with NO_2 and NO_x.

CO tends to be a localized impact associated with congested intersections. The associated potential for CO hotspots were discussed previously and are determined to be a less-than-significant impact. Thus, the project's CO emissions would not contribute to significant health effects associated with this pollutant.

The SCAB is designated as nonattainment for PM_{10} under the CAAQS and nonattainment for $PM_{2.5}$ under the NAAQS and CAAQS. Particulate matter contains microscopic solids or liquid droplets that are so small that they can get deep into the lungs and cause serious health problems. Particulate matter exposure has been linked to a variety of problems, including premature death in people with heart or lung disease, nonfatal heart attacks, irregular heartbeat, aggravated asthma, decreased lung function, and increased respiratory symptoms such as irritation of the airways, coughing, or difficulty breathing (EPA 2023c). As with O_3 and NO_x, the project would not generate emissions of PM_{10} or $PM_{2.5}$ that would exceed SCAQMD's LSTs, and the construction HRA determined that there would be less-than-significant TAC impacts. Accordingly, the project's PM_{10} and $PM_{2.5}$ emissions are not expected to cause any increase in related health effects for these pollutants.

In summary, because implementation of the project would not result in exceedances of the SCAQMD significance thresholds during construction and operation, the potential health effects associated with criteria air pollutants are considered less than significant without mitigation.

d) Would the project result in other emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less than Significant. Based on available information, the project is not anticipated to result in other emissions that have not been addressed under Thresholds 3.3a through 3.3c, above. As such, this analysis focuses on the potential for the project to generate odors.

The analysis of other emissions is focused on the potential for an odor impact to occur. The occurrence and severity of potential odor impacts depends on numerous factors. The nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of the receiving location each contribute to the intensity of the impact. Although offensive odors seldom cause physical harm, they can be annoying, cause distress among the public, and generate citizen complaints.

Odors would be generated from vehicles and/or equipment exhaust emissions during construction of the project. Odors produced during construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from the project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be considered less than significant.

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting operations, refineries, landfills,

dairies, and fiberglass molding facilities (SCAQMD 1993). As such, as the project is part of a wastewater treatment plant, the project may have the potential to include processes that could result in odors. However, the proposed treatment systems are enclosed within the proposed building on site, which would connect to the existing AWT system on site. As the project includes additional wastewater treatment infrastructure to an existing and currently operational facility, there are processes in place for odor-related BMPs. For instance, existing facilities are currently subject to SOCWA's Periodic Odor Patrol Procedures (Standard Operating Procedure 03-16-169), and the proposed project would also be subject to this procedure (MNWD 2020). These procedures include completion of odor patrol check sheet twice weekly, which includes checking for indoor and outdoor odors. Additionally, the project would also be subject to SOCWA's Odor/Noise Complaint Procedure (Standard Operating Procedure [05-02-150]) (MNWD 2019). This procedure outlines the necessary steps to properly record and investigate a noise or odor complaint, including completing an odor complaint form, informing the Chief Operator and Director of Operations, and inspecting inside and outside of the treatment plant and within homeowner's residences, if necessary. Therefore, with implementation of the above processes, which would require adherence to established protocols, operational impacts to odors would be less than significant.

3.4 Biological Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES – Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☒	☐	☐
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☐	☒	☐
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒	☐	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☐	☒
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?	☐	☐	☒	☐

The following analysis is based on a biological reconnaissance site visit conducted by Dudek biologist Kimberly Narel on December 13, 2023. This analysis includes a review of available relevant reports, maps, soil data, data on biological baselines, special-status habitats, and species distributions to determine those resources that have a potential to occur within the project site. The biological resources study area included a 100-foot buffer around a preliminary site boundary that was identified at the outset of environmental review, predating the site design update shown elsewhere in this MND. The study area boundary is shown in Figure 6, Biological Resources. Additional detail is provided in Appendix B. This includes a list of special-status biological resources recorded in the region (Appendices B-1a, CNDDB Species Results, and B-1b, CNPS Rare Plant Inventory Results), a compendium of plants and wildlife observed during the biological reconnaissance (Appendix B-2, Species Compendium), and special-status species potential-to-occur tables (Appendix B-3a, Special-Status Plant Species Potential to Occur, and Appendix B-3b, Special-Status Wildlife Species Potential to Occur).

The biological reconnaissance site visit was conducted to characterize the environmental baseline conditions, existing vegetation communities and/or land covers, and any common or special-status plants and wildlife (including their habitats) that could be impacted from project implementation. During the biological reconnaissance site visit, vegetation communities and land covers were mapped according to the Orange County Habitat Classification System (Gray and Bramlet 1992). Vegetation communities and land covers that did not conform to the Orange County Habitat Classification System were mapped according to the California Department of Fish and Wildlife (CDFW) List of Vegetation Alliances and Associations (also known as the Natural Communities List) (CDFW 2023), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009). Dudek compiled a general inventory of plant and wildlife species detected by sight, calls, tracks, scat, or other field indicators observed during the biological reconnaissance and determined the potential for special-status species to occur within the study area. Additionally, Dudek conducted a preliminary investigation of the extent and distribution of jurisdictional waters of the United States regulated by the U.S. Army Corps of Engineers, jurisdictional waters of the state regulated by RWQCB, and CDFW jurisdictional streambed and associated riparian habitat.

Dudek queried CDFW's California Natural Diversity Database's Rarefind (CDFW 2024a) and Biogeographic Information Online System (CDFW 2024b) and the California Native Plant Society's Rare Plant Inventory (CNPS 2024) to identify special-status biological resources from the region (Appendix B-1a and B-1b). The California Natural Diversity Database and Rare Plant Inventory were searched based on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle for San Juan Capistrano, where the study area is located, as well as the surrounding seven quadrangles (Tustin, El Toro, Santiago Peak, Laguna Beach, Canada Gobernadora, Dana Point,

and San Clemente). Potential and/or historic drainages and aquatic features were investigated based on a review of USGS topographic maps (1:24,000 scale) (USGS 2024a), photographs, the National Wetland Inventory database (USFWS 2024), the USGS National Hydrography Dataset (USGS 2023), and the U.S. Department of Agriculture's Natural Resource Conservation Service Web Soil Survey (USDA 2024).

The study area is depicted on Section 00, Township 7 South, Range 8 West of the San Juan Capistrano topographic quadrangle map (USGS 2024a). It is bound by the SOCWA RTP to the west, Laguna Niguel Regional Park to the north, Kings Road to the east, and open space to the south (Figure 1). The project site is separated from Laguna Niguel Regional Park via fencing. A channelized portion of Sulphur Creek bisects the study area from north to south and functions as a flood control channel that runs under the RTP access road. Elevations on the study area range from approximately 200 feet above mean sea level in the southern portion of the study area to approximately 250 feet above mean sea level in the northeastern portion of the study area. The study area contains a mixture of developed land consisting of the RTP, undeveloped ornamental uplands, and a channelized portion Sulphur Creek.

According to the U.S. Department of Agriculture Web Soil Survey, a total of five soil types are mapped on the study area: Alo clay (9%–15% slopes) (15%–30% slopes, dry) (30%–50% slopes), Botella clay loam (9%–15% slopes), Calleguas clay loam (50%–75% slopes, eroded), Sorrento clay loam (2%–9% slopes), and water. None of the soil types mapped on the study area are considered hydric (USDA 2024). The observed surface soils on the study area have been compacted and altered from their natural composition via urban development for the RTP, Laguna Niguel Regional Park, and paved roads and no longer support natural habitats.

Based on a review of the National Wetland Inventory, there are several wetland or surface water features on the study area. Specifically, Sulphur Creek is mapped as a "blue-line" stream that bisects the study area from north to south. In addition, a freshwater catch basin and several water treatment areas located within the RTP are mapped as excavated ponds on the study area. The channelized portion of Sulphur Creek receives water from Laguna Niguel Lake to the north as well as from adjacent residential development in uplands to the west (USFWS 2024). A review of the National Hydrography Dataset also maps Sulphur Creek as a blue-line canal. Further, the National Hydrography Dataset depicts a blue-line stream/river that flows stormwater downhill from the western upland residential area, parallel to the RTP access road, and connects to Sulphur Creek (USGS 2023).

A total of six vegetation communities and/or land covers are present on the study area (Figure 6). Specifically, the study area consists of mixed eucalyptus woodland, ornamental plantings, intermittent stream/creek, open water, flood control channel, and urban/developed land. No sensitive vegetation communities identified on the CDFW Natural Communities List occur in the study area (CDFW 2023). A total of 15 plant species, 4 native (27%) and 11 non-native (73%), were observed in the study area during the biological reconnaissance; no special-status or rare plants were observed (Appendix B-2).

Mixed eucalyptus woodland dominates the northern and eastern portions of the study area (Figure 6). This non-native vegetation community is not described in the Orange County Habitat Classification System but is described within A Manual of California Vegetation (CDFW 2023). Characteristic species observed included densely co-dominated river redgum (*Eucalyptus camaldulensis*), Tasmanian bluegum (*E. globulus*), and silver dollar tree (*E. cinerea*) in the tree canopy. An understory of dense golden wattle (*Acacia pycnantha*) and scattered black mustard (*Brassica nigra*) were present in the shrub layer with isolated stands of tamarisk (*Tamarix ramosissima*). Ruderal vegetation characteristic of disturbed areas observed in the herbaceous layer consisted of Maltese star-thistle (*Centaurea melitensis*) and cardoon (*Cynara cardunculus*).

Parks and ornamental plantings were observed within Laguna Niguel Regional Park north of the project site as well as surrounding the RTP parking lot within the project site. This vegetation community is described within the Orange County Habitat Classification System (Gray and Bramlet 1992). Mixed eucalyptus trees and planted native California sycamore (*Platanus racemosa*) co-dominated a scattered tree canopy; isolated stands of Canary Island pine trees (*Pinus canariensis*) were interspersed as well. Ornamental shrubs including honeysuckle (*Lonicera* sp.) and Mexican fan palm (*Washingtonia robusta*) were interspersed with native lemonade berry (*Rhus integrifolia*) in the shrub understory. Bare ground and manicured grass were present in the herbaceous layer.

The intermittent stream/creek on the study area is the un-channelized portion of Sulphur Creek in the northern study area buffer. This vegetation community is described in the Orange County Habitat Classification System (Gray and Bramlet 1992). It consists of open freshwater received from Laguna Niguel Lake to the north, which inlets into a flood control channel that bisects the study area from north to south. Vegetation observed overhanging the intermittent stream/creek contained mixed eucalyptus woodland in the tree canopy. The channelized, flood control portion of Sulphur creek reverts to a natural channel in Laguna Niguel Regional Park to the north of the project site, with dense cattail (*Typha* sp.) observed in the herbaceous and shrub layers. Sulphur Creek is a tributary of Aliso Creek and is mapped on both the National Wetland Inventory and National Hydrography Dataset as blue-line features.

Open water is described in the Orange County Habitat Classification System (Gray and Bramlet 1992). The concrete-lined artificial freshwater catch basin on the western portion of the study area is mapped as open water. An abundance and diversity of native waterfowl were observed wading in the catch basin during the biological reconnaissance, including green-winged teal (*Anas cyanoptera*), American widgeon (*Mareca americana*), mallard (*Anas platyrhynchos),* American coot (*Fulica americana*), and northern pintail (*Anas acuta*).

Flood control channel is described in the Orange County Habitat Classification System (Gray and Bramlet 1992). It consists of the channelized portion of Sulphur Creek that bisects the study area from north to south. Limited ruderal vegetation was observed growing at the base of the flood control channel in patches of shallow standing water leftover from recent stormwater runoff.

Urban and developed lands within the study area include La Paz Road, the RTP, and the RTP parking lot and access road.

A total of 13 native wildlife species consisting of 12 bird species and 1 mammal species were observed during the field survey (Appendix B-2). No reptiles, amphibians, fish, or invertebrates were detected in the study area during the biological reconnaissance. Wildlife species diversity during the biological reconnaissance was relatively low and diminished due to the surrounding urban developments, existing human disturbances from daily municipal and recreational activities, and limited undisturbed native habitats within the study area. No special-status wildlife species were observed during the biological reconnaissance.

a) 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 California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant with Mitigation. Based on the results of the California Natural Diversity Database and Rare Plant Inventory queries, there are 79 special-status plants and 59 special-status wildlife with recorded occurrences in the San Juan Capistrano 7.5-minute USGS quadrangle and surrounding seven quadrangles (Appendices B-1a and B-1b). The project site occurs in an urban setting and contains

predominantly ornamental vegetation, existing development, and eucalyptus woodland. No undisturbed natural communities, hydric soils, or natural hydrology occur on the project site due to previous and ongoing disturbances.

Of the 79 special-status plants, based on range, elevation, and associated vegetation and soils, none are expected to occur in the study area. The study area lacks native or sensitive vegetation communities that are capable of supporting special-status plants. No special-status plants were observed on the study area during the biological reconnaissance. Although clay soils on the study area are known to support a variety of special-status plants, soils on site have been heavily modified form site grading, non-native ornamental proliferation, and compaction from development. Further, the planted eucalyptus woodlands in the study area degrades natural understory vegetation and reduces species diversity from naturally occurring acidic chemicals in the leaves and roots, which inhibit competitive growth and rapidly deplete nutrients in the soil. In addition, the dominance of frequently manicured ornamental vegetation and existing development in the study area decrease the likelihood of special-status species presence. As such, special-status plants are not expected to occur and have not been evaluated further. A complete list of special-status plants known to occur in the region and their habitat, life form, range, and determinations for their potential to occur in the study area is included in Appendix B-3a.

Of the 59 special-status wildlife species analyzed for their potential to occur within the study area, based on range, habitat, and surrounding conditions, 11 of these species were deemed to have a low potential to occur. The remaining 48 species have no potential to occur in the study area due to lack of suitable habitat or species range. Given the low-quality, non-native habitats on the project site and its location within an urban setting, there is no moderate or high potential for special-status wildlife to occur in the study area (Appendix B-1b). No special-status wildlife species were observed during the biological reconnaissance in the study area. The mixed eucalyptus woodlands, the ornamental plantings, the artificial freshwater catch basin, and Sulphur Creek on site provide very little, low-low quality, yet suitable habitat for the 11 special-status wildlife species with a low potential to occur (Appendix B-3b). Additionally, Sulphur Creek has been heavily modified as a flood control channel within the project site boundary, and the natural channelization of Sulphur Creek within Laguna Niguel Regional Park north of the project site is separated from the project site by fencing. The study area contains existing municipal development that supports frequent human activities, further reducing the potential for special-status wildlife to occur or move into the study area from larger, higher quality adjacent native habitat areas off site to the north and south (Laguna Niguel Regional Park, Crown Valley Park). Furthermore, the lack of natural connection to other sensitive biological resources, such large habitat blocks or wildlife corridors, reduces the potential for any special-status wildlife species to occur within the study area. Table 3-8 below includes the special-status wildlife determined to have a low potential to occur within the study area, with their listing status, habitat preferences, and potential to occur determinations.

Table 3-8. Special-Status Wildlife with a Potential to Occur within the Study Area

Scientific Name	Common Name	Status (Federal/State/ OC NCCP)	Habitat	Potential to Occur
Asio otus (nesting)	long-eared owl	None/SSC/NA	Nests in riparian habitat, live oak thickets, other dense stands of trees,	Low potential to occur. Dense eucalyptus woodland on site could

Table 3-8. Special-Status Wildlife with a Potential to Occur within the Study Area

Scientific Name	Common Name	Status (Federal/State/ OC NCCP)	Habitat	Potential to Occur
			edges of coniferous forest; forages in nearby open habitats	support nesting for this species. No foraging habitat present.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/ Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. Although no nesting habitat is present, may opportunistically forage in ornamental vegetation on site. Nearest occurrence record is immediately south of the project site in upland grasslands along Sulphur Creek (2002) (CDFW 2024a).
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/NA	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Low potential to occur. Eucalyptus woodland adjacent to Sulphur Creek, although channelized, could support nesting and foraging opportunities for this species on site.
Elanus leucurus (nesting)	white-tailed kite	None/FP/NA	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Low potential to occur. Eucalyptus woodland adjacent to Sulphur Creek, although channelized, could support nesting and foraging opportunities for this species on site.
Antrozous pallidus	pallid bat	None/SSC/NA	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in human-made structures and trees	Low potential to occur. May roost and forage in eucalyptus woodland on site as well as under access road bridge above Sulphur Creek.
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/NA	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Low potential to occur. May roost and forage along Sulphur Creek and under access road bridge.
Eumops perotis californicus	western mastiff bat	None/SSC/NA	Chaparral, coastal and desert scrub, coniferous	Low potential to occur. May roost and forage in

Table 3-8. Special-Status Wildlife with a Potential to Occur within the Study Area

Scientific Name	Common Name	Status (Federal/State/ OC NCCP)	Habitat	Potential to Occur
			and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	eucalyptus woodland and under access road bridge above Sulphur Creek on site. Nearest occurrence record is from an unknown date immediately west of the project site, along Aliso Creek (CDFW 2024a).
Nyctinomops macrotis	big free-tailed bat	None/SSC	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Low potential to occur. May nest and forage in eucalyptus woodland adjacent to Sulphur Creek on site.
Lasiurus blossevillii	western red bat	None/SSC/NA	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Low potential to occur. May roost and forage in eucalyptus woodland on site.
Bombus crotchii	Crotch's bumble bee	None/SCE/NA	Open grassland and scrub communities supporting suitable floral resources.	Low potential to occur. Suitable floral nectar resources on site; however, this species is known to occur in more arid habitats. Nearest occurrence record is 1 mile south of the project site, from 2020, in Crown Valley Park (CDFW 2024a).
Danaus plexippus plexippus pop. 1	monarch – California overwintering population	FC/None/NA	Wind-protected tree groves with nectar sources and nearby water sources	Low potential to occur. May overwinter in eucalyptus woodland on site. Suitable nectar sources present for foraging. Site is not a known monarch overwintering area, and none are within 5 miles of the site (Xerces 2024).

Status Abbreviations
Federal
FC: Federal candidate species (former Category 1 candidates)
State
FP: California Fully Protected Species
SCE: State candidate for listing as endangered
SSC: California Species of Special Concern

WL: California Watch List Species
OC NCCP/HCP: Central/Coastal Subarea Plan of the Orange County Natural Community Conservation Plan/Habitat Conservation Plan
Covered: Species covered under the OC NCCP/HCP
NA = Not Applicable

White-tailed kite (*Elanus leucurus*) is a CDFW Fully Protected species when nesting (California Fish and Game Code Sections 3511, 4700, 5050, 5515) that cannot be taken or possessed at any time. White-tailed kite is deemed to have a low potential to occur on site, but its absence during project initiation cannot be guaranteed. CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. On July 10, 2023, SB 147 was signed into law, which amends the California Fish and Game Code to allow a 10-year permitting mechanism for a defined set of projects within the renewable energy, transportation, and water infrastructure services. If a nesting white-tailed kite is observed on the study area, impacts to this species would require mitigation (see Mitigation Measure [MM] BIO-1).

Eucalyptus woodlands in the study area provide suitable wind protection and potential roosting/overwintering habitat for the California monarch butterfly (*Danaus plexippus plexippus*). Monarchs begin to overwinter along the Pacific coast in September and October through February. Although no monarch butterflies were observed on the study area during the biological reconnaissance, which was conducted in December 2023, and the study area is not mapped as a known overwintering area (Xerces 2024), loss of mature trees used by overwintering monarch butterflies would result in project impacts warranting mitigation.

In summary, the project would result in no impact to special-status plant species and has a low potential to result in impacts to 11 special-status wildlife species. With incorporation of **MM-BIO-1**, project impacts to special-status wildlife would be less than significant with mitigation incorporated.

MM-BIO-1 Pre-construction Surveys for Special-Status Wildlife. One pre-construction clearance survey for long-eared owl (*Asio otus*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), Cooper's hawk (*Accipiter cooperii*), white-tailed kite (*Elanus leucurus*), pallid bat (*Antrozous pallidus*), Mexican long-tongued bat (*Choeronycteris mexicana*), western mastiff bat (*Eumops perotis californicus*), western red bat (*Lasiurus blossevillii*), California monarch butterfly (*Danaus plexippus plexippus*), and Crotch's bumble bee (*Bombus crotchii*) shall be conducted no more than 14 days prior to initiation of site preparation and ground-disturbing activities to determine the presence/absence of special-status wildlife in the study area. A qualified biologist shall walk the entire study area to determine if any special-status avian, mammal, or invertebrate species are observed or detected. If any special-status wildlife are observed or detected during the pre-construction surveys, additional measures may be required, such as establishing a buffer around known locations and/or conducting monitoring during construction near occupied areas to move observed individuals out of harm's way. For Crotch's bumble bee, if an individual is found, a determination of direct impact must be made. If the determination of significant impact is made, focused surveys and/or California Department of Fish and Wildlife (CDFW) permitting will be required to permit the take of Crotch's bumble bee and mitigate for the loss. As the project is for water infrastructure services at a regional treatment plant for a water district, if white-tailed kite is observed

nesting in the study area, further consultation with CDFW would be required to determine a permitting mechanism for the project prior to ground-disturbing activities.

With implementation of **MM-BIO-1,** potential impacts to special-status wildlife would be less than significant with mitigation incorporated.

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

Less than Significant. The project site occurs in a partially developed area in an urban setting, with ornamental vegetation that lacks sensitive vegetation communities, natural drainages, or watercourses capable of supporting riparian habitat. There is one channelized drainage, Sulphur Creek, a tributary to Aliso Creek, that bisects the study area. Sulphur Creek is a blue-line stream mapped on USGS topographic maps, the National Wetland Inventory, and the National Hydrography Dataset in the study area. However, Sulphur Creek is a concrete-lined channelized drainage that lacks natural wetland characteristics, such as hydrophytic vegetation and hydric soils on the project site, and is separated from the naturally channelized portion of Sulphur Creek in the Laguna Niguel Regional Park to the north by fencing. As such, no sensitive riparian community was observed or has the potential to occur within the project site. Indirect impacts on natural riparian vegetation north of the project site would be limited to short-term construction impacts related to erosion, runoff, and dust that are addressed through stormwater quality BMPs that shall be implemented for the project. Section 3.10, Hydrology and Water Quality, details the requirement to implement stormwater BMPs during all construction-related activities to prevent indirect impacts caused by ground-disturbing activities (i.e., sediment runoff or soil erosion). Therefore, the project will result in a less-than-significant impact on riparian habitat or any other sensitive natural communities.

c) Would the project 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?

Less than Significant. No formal jurisdictional wetland delineation was conducted on the study area. A preliminary assessment of potential jurisdictional waters on the study area determined the project site does not contain any natural drainages. However, the concrete-lined channelized portion of Sulphur Creek bisects the project site from north to south (Figure 6). The natural channelization of Sulphur Creek is north of the project site, in Laguna Niguel Regional Park, and separated from the project site by fencing. Sulphur Creek is a tributary to Aliso Creek, which outlets into the Pacific Ocean, a traditionally navigable water. Although clay soils are present on the project site, the observed surface soils have been previously graded from their natural composition from development, eucalyptus woodlands, and ornamental plantings, and therefore no longer support natural wetland characteristics.

Although proposed construction activities are not anticipated to directly impact or encroach Sulphur Creek, short-term indirect impacts from construction related to erosion, runoff, and dust could occur. Indirect project impacts to mapped jurisdictional waters and wetlands are considered significant absent mitigation and/or permitting from the U.S. Army Corps of Engineers, RWQCB, and/or CDFW. Section 3.10 details the project's regulatory compliance requirements regarding adjacency to jurisdictional waters, including incorporation of stormwater BMPs to prevent indirect impacts on adjacent wetlands caused by

ground-disturbing activities (i.e., sediment runoff or soil erosion). With required implementation of stormwater BMPs, the project would have a less-than-significant impact to state and federally protected waters and wetlands.

d) 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 wildlife corridors, or impede the use of native wildlife nursery sites?

Less than Significant with Mitigation. The study area does not occur within any designated wildlife corridors or habitat linkages, nor does it provide opportunities for wildlife movement through the study area to larger habitat blocks in the region. On a local scale, the study area is fragmented, within an urban setting, and separated from larger natural habitat such as Laguna Niguel Regional Park to the north by fencing. Although the channelized portion of Sulphur Creek bisects the study area from north to south, it is separated from the natural channelization within Laguna Niguel Regional Park by fencing. There is no natural riparian habitat within the project site that could support local travel by small- to medium-sized mammals and reptiles to natural habitat.

Based on observations during the biological reconnaissance, the RTP's artificial basin supports native waterfowl that use it as a local wading stopover. Due to its small size and location within a water treatment facility, it is not likely to support nesting waterfowl. Larger, natural habitat to the north in Laguna Niguel Regional Park is separated from the study area by fencing, which serves as a habitat barrier. In addition, ongoing human activities from the water treatment facility would significantly impede local wildlife movement in the study area. Fencing surrounding the channelized portion of Sulphur Creek in the study area also serves as a habitat barrier to the natural channelization of Sulphur Creek that would prevent wildlife species from dispersing across the study area into those other habitats.

Although no nesting birds were observed during the biological reconnaissance, ornamental vegetation and eucalyptus woodland on the project site could support foraging and nesting opportunities for raptors and migratory birds protected by the Migratory Bird Treaty Act (16 USC 703–712) and California Fish and Game Code Sections 3503, 3503.5, and 3513. Project-related impacts to nesting and migratory birds protected by the Migratory Bird Treaty Act would be considered significant absent mitigation. To avoid impacts, **MM-BIO-2** shall be implemented. With implementation of **MM-BIO-2**, potential direct impacts to migratory and nesting birds would be less than significant.

MM-BIO-2 Nesting Bird Avoidance. The project should avoid the avian nesting season (February 1–August 31) in order to reduce any potential impact to protected birds and their nests. In the event the project must commence during the nesting season, a pre-construction clearance nesting survey should be conducted within 3 days prior to ground-disturbing activities to determine the presence/absence of nesting birds. If an active nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer established around the nest, which shall be determined by the biologist based on the species' sensitivity to disturbance (up to 500 feet for raptors and 300 feet for passerine birds). Ongoing biological monitoring during construction may be required until the nestlings have fledged and the nest is no longer active. The buffer will be established by a biologist based on the sensitivity of the species to disturbance and proximity to project activities. Construction activities may continue outside of the buffer under the discretion of

a monitoring biologist. Once the biologist has determined the nest is no longer active, the buffer can be removed, and construction may continue.

With implementation of **MM-BIO-2**, potential impacts to nesting birds would be less than significant with mitigation incorporated.

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

No Impact. There are no local policies or ordinances protecting biological resources for the City, such as a tree preservation policy, that are applicable to the project (City of Laguna Niguel 1992). As such, no impacts to local policies or ordinances protecting biological resources will occur from project implementation.

f) ***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?***

Less than Significant. The project is located in the City of Laguna Niguel, which occurs within the boundaries of the Central/Coastal Subarea Plan of the Orange County Natural Community Conservation Plan/Habitat Conservation Plan (OC NCCP/HCP). However, the project site is not mapped within any conservation areas, linkages, or habitat reserves (Figure 7, Central/Coastal OC NCCP/HCP). The City is not in an enrollment agreement with the Central/Coastal Subarea Plan of the OC NCCP/HCP. Additionally, the District is not a signatory to the Central/Coastal Subarea Plan of the OC NCCP/HCP and therefore is not provided take coverage for covered species or habitats that may be impacted by the project. Impacts related to project construction would be limited and would not result in impacts to coastal sage scrub habitat or the federally threatened coastal California gnatcatcher (*Polioptila californica californica*), which are the focus of protection within the Central/Coastal Subarea Plan of the OC NCCP/HCP. The project, as currently designed, would comply with the biological goals and policies set forth in the Central/Coastal Subarea Plan of the OC NCCP/HCP, particularly with implementation of the two mitigation measures prescribed above. Therefore, the construction of the proposed project would result in less-than-significant impacts with regard to any adopted or approved conservation plan.

3.5 Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	☐	☐	☐	☒
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☒	☐	☐
c) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☐	☒	☐

The analysis in this section is based on the Cultural Resources Inventory conducted for the Moulton Niguel Water District Salinity Management System Project prepared by Dudek in August 2024, which is included as Appendix C. The Cultural Resources Inventory involved a California Historical Resources Information System database records search conducted at the South Central Coastal Information Center (SCCIC), a search of the California Native American Heritage Commission (NAHC) Sacred Lands File (SLF), a review of historical topographic maps and aerial photographs, and a pedestrian survey of the project site conducted in July 2024.

The results of the SCCIC records search are included in Confidential Appendix B of Appendix C, which is not included in the public version of this MND. The records search included a review of all previously recorded investigations and cultural resources within a 1-mile radius of the project site. Overall, the records search identified 24 previous cultural resource studies conducted within 1 mile of the project site, none of which overlap with or are adjacent to the project site. Additionally, the records search did not identify any previously recorded cultural resources occurring within the project site, but identified four previously recorded prehistoric archaeological resources within the 1-mile search radius. These include one prehistoric midden deposit with an associated bedrock mortar complex and three prehistoric flake stone and ground stone scatters. The closest previously recorded cultural resource to the project site is approximately 0.7 miles away.

Dudek requested an NAHC search of the SLF for the project site and a 1-mile radius on December 7, 2023. The SLF consists of a database of known Native American resources. These resources may not be included in the SCCIC database. The NAHC replied via email on January 8, 2024, stating that the SLF search was completed with positive results. Positive results indicate the presence of Native American cultural resources within 1 mile of the project site and not necessarily directly within the project site.

In addition to the SCCIC records search and the NAHC SLF search, Dudek conducted an online review of historic topographic maps and aerial photographs to better understand the development of the project site and surrounding properties over time. Overall, this historical archival review indicates that the surface of the project site has been disturbed due to disking, grading, and vegetation clearing since at least 1963 and that no historic age structures have ever existed within the project site.

The pedestrian survey entailed walking transects of approximately 50% of the site, with a reconnaissance-level survey performed on the other 50% of the site due to the presence of dense vegetation cover and hardscape. No archaeological resources were identified during the survey.

a) Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

No Impact. The records search, NAHC SLF search, historical topographic maps and aerial photographs review, and pedestrian survey conducted for the Cultural Resources Inventory did not identify any known historical resources that would be disturbed by project construction. Construction of the project's treatment facility would entail demolition of a parking area and associated hardscape that is part of the existing RTP. These facilities do not meet the minimum age threshold to be considered historical resources in accordance with CEQA. Therefore, there would be no impact.

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

Less than Significant with Mitigation. The records search, NAHC SLF search, historical topographic maps and aerial photographs review, and pedestrian survey conducted for the Cultural Resources Inventory did not identify any known archaeological resources within the project site, and the Cultural Resources Inventory determined a low potential to encounter intact cultural deposits during project-related ground-disturbing activities. However, the absence of archaeological resources within subsurface deposits cannot be confirmed, so mitigation **MM-CUL-1** and **MM-CUL-2** have been included to avoid significant impacts to resources that may be uncovered during construction.

MM-CUL-1 Workers Environmental Awareness Program Training. All construction personnel and environmental monitors who are not trained archaeologists shall be briefed regarding the potential for inadvertent discoveries of cultural resources prior to the start of construction activities. A basic presentation and handout or pamphlet shall be prepared to aid in proper identification and treatment of inadvertent discoveries. The purpose of the training is to provide specific details on the kinds of archaeological materials that may be identified during construction of the project and explain the importance of and legal basis for the protection of significant archaeological resources. Each worker shall also learn the proper procedures to follow if cultural resources or human remains are uncovered during ground-disturbing activities. These procedures include work curtailment or redirection, and the immediate contact of the site supervisor, lead agency, and professional archaeologist.

MM-CUL-2 Inadvertent Discovery Treatment and Protocol. The construction contract shall state that if archaeological resources (sites, features, or artifacts) are exposed during construction activities, all construction work occurring within 50 feet of the find will immediately stop and a qualified archaeologist will be notified to assess the significance of the discovery and determine if additional study is warranted. If human remains or suspected human remains are discovered, all construction work occurring within 100 feet of the find should immediately stop. Depending upon the significance of the discovery, the archaeologist may simply record the find and allow work to continue. If the discovery proves significant under CEQA, additional work, such as preparation of an archaeological treatment plan, testing, data recovery, or monitoring, may be warranted.

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

Less than Significant. The records search and pedestrian survey did not indicate a likelihood of encountering human remains during project construction. In accordance with Section 7050.5 of the California Health and Safety Code, if human remains are discovered, the county coroner must be immediately notified, and no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains may occur until the county coroner has determined the appropriate treatment and disposition of the human remains. If the county coroner determines that the remains are, or are believed to be, Native American, he or she should follow all required protocols according to California Public Resources Code (PRC), Section 5097.98. This compliance with state law is not considered mitigation pursuant to CEQA.

3.6 Energy

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VI. Energy – 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?	☐	☐	☒	☐
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	☐	☐	☐	☒

a) Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Less than Significant. Project implementation would result in energy use for construction and operation.

Electricity

Electricity consumed during project construction and operations would vary throughout the construction period based on the construction activities being performed. Various activities may require electricity, including conveying water that would be used for dust control (supply and conveyance), powering any necessary lighting or electronic equipment, or other activities necessitating electrical power. Such electricity demand would be temporary and nominal and would cease upon the completion of construction or operational maintenance activities. Therefore, the use of electricity during project construction and operations would not be wasteful, inefficient, or unnecessary.

Natural Gas

Natural gas use is not anticipated during construction or operational maintenance activities. Equipment and vehicles would be powered by petroleum-based fuels as discussed below. Therefore, the use of natural gas during project construction and operations would not be wasteful, inefficient, or unnecessary.

Petroleum-Based Fuels

Construction of the project would consume energy resources as a result of the use of heavy-duty construction equipment, on-road delivery and haul trucks, and workers commuting to and from the project site. Petroleum emissions associated with the use of construction equipment and vehicles, which were used to calculate gallons of petroleum consumed, were calculated using CalEEMod and are provided in Appendix A-1. Fuel consumption from construction equipment was estimated by converting the total carbon dioxide (CO_2) emissions from each construction phase to gallons using the conversion factors for CO_2 to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton (MT) CO_2

per gallon, and the conversion factor for diesel is 10.21 kilograms per MT CO_2 per gallon (The Climate Registry 2023). The estimated fuel usage from construction of the project is shown in Table 3-9.

Table 3-9. Total Proposed Project Construction Petroleum Demand

Scenario	Off-Road Equipment (diesel)	Haul Trucks (diesel)	Vendor Trucks (diesel)	Worker Vehicles (gasoline)
	Gallons			
Project Construction	5,706	465	136	525
Total Petroleum Consumed during Project Construction				6,832

Source: Appendix A-1.

In summary, construction associated with the development of the project is estimated to consume a total of approximately 6,832 gallons of petroleum. Notably, the project would be subject to CARB's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to CARB (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate or that the fleet has met the Best Achievable Control Technology requirements.

For long-term operations, the project would require 1,281 gallons of gasoline for vehicles, 35 gallons of gasoline for landscape equipment, and 39 gallons of diesel consumed for daily maintenance trips. The project would require 4,293,419 kilowatt/hours per year of electrical consumption and no natural gas consumption.

Overall, while construction and operational activities would consume petroleum-based fuels, consumption of such resources would be typical of construction projects of similar types and sizes and would not necessitate new petroleum resources beyond what are typically consumed in California. Therefore, because petroleum use during project construction would be intermittent and minimal and would not be wasteful or inefficient, impacts are determined to be less than significant.

b) Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

No Impact. As discussed in Section 3.6(a), the proposed project would not result in wasteful, inefficient, and unnecessary consumption of energy during construction or operation. Petroleum use during construction would be minimal and temporary. Petroleum use during operational maintenance activities would be infrequent (three maintenance trips per day) and less than during construction. Electrical consumption would be necessary for project implementation, but would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Based on the above considerations, no impacts associated with the potential of the project to conflict with a state or local renewable energy or energy efficiency plan would occur.

3.7 Geology and Soils

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VII. GEOLOGY AND SOILS – Would the project:				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	☐	☐	☐	☒
ii) Strong seismic ground shaking?	☐	☐	☒	☐
iii) Seismic-related ground failure, including liquefaction?	☐	☐	☒	☐
iv) Landslides?	☐	☐	☒	☐
b) Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial direct or indirect risks to life or property?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒	☐	☐

a) Would the project 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.

No Impact. The City is located in a highly active seismic region; however, there are no active or potentially active seismic faults in the City. The closest active faults are the Newport-Inglewood-Rose Canyon Fault Zone, located approximately 6 miles southwest of the site, and the Whittier-Elsinore Fault Zone, located approximately 21 miles northeast of site (CGS 2024a; City of Laguna Niguel 1992). The project site is not located within an Alquist-Priolo Earthquake Fault Zone, as designated by the State Geologist and as defined by the Alquist-Priolo Earthquake Fault Zoning Act (CGS 2024b). In addition, construction and operation of the project would not cause rupture of a known earthquake fault. As a result, the project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault. No impacts would occur.

ii) Strong seismic ground shaking?

Less than Significant. The Newport-Inglewood-Rose Canyon Fault Zone is capable of producing a maximum probable earthquake of moment magnitude 6.0 to 7.2, and the Whittier-Elsinore Fault Zone is capable of producing a maximum probable earthquake of moment magnitude 6.5 to 7.5 (SCEDC 2024). Based on the seismic history of these fault zones and their proximity to the project site, these fault zones have the greatest potential for causing earthquake damage at the site. A maximum probable earthquake moment magnitude 8.5 on the San Andreas Fault would not produce ground shaking at the site as severe as that produced during a maximum probable earthquake on the Newport-Inglewood-Rose Canyon Fault Zone. However, the duration of ground shaking would be substantially longer (G.A. Nicoll and Associates 1994).

Other regional faults capable of causing damage within Laguna Niguel include the San Jacinto, Malibu Coast-Raymond, Palos Verdes, San Gabriel, and Sierra Madre-Santa Susana-Cucamonga Faults (City of Laguna Niguel 1992). However, the project would be designed and constructed in accordance with the 2022 California Building Code (CBC), which specifies that the maximum probable earthquake ground motion response accelerations be used to evaluate seismic loads for the design of buildings and other structures. The CBC also requires that project design and construction be completed in accordance with recommendations of a project-specific geotechnical report, thus minimizing the potential for damage as a result of seismically induced ground failure. In addition, construction and operation of the project would not cause strong seismic ground shaking to occur. As a result, the project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking. Less-than-significant impacts would occur.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant. The project site is not located within a potential liquefaction zone, as designated by the State Geologist (CGS 2024b). Based on a previous geotechnical investigation at the project site (G.A. Nicoll and Associates 1994), the potential for liquefaction at the site is low due to the presence of cohesive soils. Other forms of seismic-related ground failure include lateral spreading and differential

settlement. Lateral spreading is a form of slope failure in which unsupported soils on slopes underlain by liquefaction-prone soils fail laterally, resulting in tension cracks, block failure, and flowing sands. Because the project site is not underlain by liquefaction-prone soils, lateral spreading is not anticipated at the site. Differential settlement occurs as a result of the non-uniform movement of soils (i.e., soil settlement at different rates), potentially resulting in foundation cracking and pipeline/utility damage. Project design and construction would occur in accordance with provisions of the 2022 CBC and recommendations of a standard, project-specific geotechnical report, thus minimizing the potential for damage as a result of seismically induced differential settlement. These recommendations typically include over-excavation and recompaction of loose, unconsolidated sediments, as well as seismic design of foundations, piping, and related facilities. In addition, construction and operation of the project would not cause seismic-related ground failure to occur. As a result, the proposed project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure. Less-than-significant impacts would occur.

iv) Landslides?

Less than Significant. Slope instability is a concern throughout much of Laguna Niguel. Areas underlain by shale and siltstone are more prone to landslides when compared to other bedrock types, and the Capistrano, Monterey, and Topanga Formations, prevalent throughout hillside areas in the City, are most prone to slow-developing, slump-type failure (City of Laguna Niguel 1992). The project site is underlain by siltstone bedrock of the Capistrano Formation (G.A. Nicoll and Associates 1994). Based on the City General Plan Seismic/Public Safety Element (City of Laguna Niguel 1992), the project site is not located within a potential landslide area. However, based on more recent geologic mapping by the California Geological Survey (CGS 2024b), all of or portions of the project site are located within a potential landslide zone. The City and the District are working on projects to address an active landslide that is affecting the slope beneath and west of La Paz Road approximately 500 feet north of the site. The project's proposed facilities are not within the boundaries of or downslope of that landslide.

The proposed treatment system components would be housed indoors in up to one multilevel and two single-level pre-engineered metal buildings, approximately 15,000 square feet in floor area. A preliminary site plan is shown in Figure 3. The treatment facility site is located on relatively flat to gently sloping ground adjacent to the RTP's existing parking lot on the east side of the site. Grading would be completed for construction of the facilities, and trenches would be dug within the treatment infrastructure site for internal piping. The project area east of the on-site, concrete-lined segment of Sulphur Creek would be graded for construction of a paved space for additional parking and construction staging. The topography of the eastern site is gently sloping towards the concrete drainage channel.

Because the topography of the treatment facility site is relatively flat to gently sloping, only minor cut and fill grading is anticipated. Similarly, grading for the proposed parking area is anticipated to be minor. Construction on steep, potentially landslide-prone topography would not occur at either project site. Utility trench excavations would result in temporary vertical sidewalls pending backfill with soil. In the absence of proper shoring and/or temporary slope construction, trench sidewalls and temporary slopes could collapse, resulting in injury or death to on-site personnel. However, temporary excavations would be completed in accordance with the California Occupational Safety and Health Administration (Cal/OSHA), which has responsibility for implementing federal rules relevant to worker safety, including slope protection during construction excavations. Cal/OSHA's requirements are more restrictive and protective than federal

Occupational Safety and Health Administration standards. Title 8 of the California Code of Regulations, Chapter 4, Division of Industrial Safety, covers requirements for excavation and trenching operations. Compliance with Cal/OSHA regulations would prevent caving of temporary trench walls.

In addition, final slope gradients at both sites would be designed and constructed in accordance with the 2022 CBC and the recommendations of the project geotechnical report, which would be based on geologic mapping, soil borings, and slope stability analyses, if necessary. Grading and construction in accordance with slope stability recommendations in the geotechnical report would prevent long-term slope instability during project operations. As a result, the proposed project would not directly or indirectly cause substantial adverse effects, including the risk of loss, injury, or death involving landslides. Less-than-significant impacts would occur.

b) Would the project result in substantial soil erosion or the loss of topsoil?

Less than Significant. The project would include vegetation clearing, cut-and-fill grading, trench excavations, temporary stockpiling of soil, asphalt/concrete paving for vehicle and pedestrian access, drainage improvements, and construction of pre-engineered metal buildings. Temporary soil exposure during grading and construction would potentially result in wind and water erosion, which in turn could result in sedimentation of on-site Sulphur Creek and downstream Laguna Niguel Lake and Aliso Creek. However, because ground disturbance would be greater than 1 acre, project soil-disturbing activities would be completed in accordance with the NPDES General Permit for Stormwater Discharges Associated with Construction and Land Disturbance Activities (Construction General Permit), which includes a standard construction stormwater pollution prevention plan (SWPPP) and associated BMPs, to be implemented for sediment and erosion control during site grading and construction.

Applicable BMPs may include surface roughening, mulching, and installation of silt fences and biodegradable fiber rolls or wattles to reduce erosion and sedimentation rates during ground-disturbing activities. Typical BMPs would ensure grading and construction is primarily conducted during dry-weather conditions, water is used for moisture control of exposed soils to prevent wind erosion when temporarily disturbed, coverings are used for temporary stockpiles, temporary catch basins are present, and sandbagging is used. If ground-disturbing activities occur during the rainy season (normally from November through April), BMPs would be implemented to protect slopes against erosion. Measures to help minimize erosion could include the installation of berms, plastic sheeting, or other devices to protect exposed soils from the effects of precipitation. Surface water would be prevented from flowing over or ponding at the top of excavations. Temporary impact areas would be hydroseeded with an erosion-control seed mix after construction is complete. Following construction, all previously disturbed areas would either be paved or vegetated, thus avoiding the potential for long-term soil erosion.

With implementation of the Construction General Permit SWPPP, followed by revegetation and paving, the project would not result in substantial soil erosion or loss of topsoil. Less-than-significant impacts would occur.

c) Would the project 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. As described above in Section 3.7(a-iii), the project would not be susceptible to liquefaction or lateral spreading. As described in Sections 3.7(a-iii) and 3.7(a-iv), potential impacts related to slope stability, differential settlement, or other forms of ground failure would be less than significant with compliance with Cal/OSHA regulations, 2022 CBC regulations, and recommendations of a standard, project-specific geotechnical report (as required by the CBC). Any potentially collapsible or uncompacted fill would similarly be addressed in the geotechnical report recommendations, which typically consist of overexcavation and recompaction of the soil prior to construction. The project site would not be susceptible to regional ground subsidence due to groundwater pumping, peat loss, or oil extraction (USGS 2024b). Therefore, the project site would not become unstable as a result of the project and would not result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. Less-than-significant impacts would occur.

d) Would the project 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. Based on a previous geotechnical investigation at the project site (G.A. Nicoll and Associates 1994), the existing facility is at least partially underlain by clayey artificial fill and alluvium. Clay-rich soils can be prone to soil expansion. However, based on observations and laboratory testing, these soils had a low expansion potential. In accordance with the 2022 CBC and the project-specific geotechnical report, additional soil testing would be completed in areas of proposed construction to determine the expansion potential of the soils. In the event that expansive soils are present, standard geotechnical engineering would be used to accommodate the expansive soils. Typical engineering to address expansive soils includes construction of post-tension concrete slabs and/or overexcavation of near-surface, clay-rich soils and replacement with sandy, non-expansive soils. As a result, the project would not create substantial direct or indirect risks to life or property. Less-than-significant impacts would occur.

e) Would the project 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 site is an existing wastewater treatment plant, and septic tanks or alternative wastewater disposal systems would not be used for the project. No impacts would occur.

f) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less than Significant with Mitigation. The project area is located within the Peninsular Ranges Geomorphic Province. This province is characterized by a series of ranges separated by northwest-trending valleys that are subparallel to faults branching from the San Andreas Fault (CGS 2002). According to surficial geological mapping by Morton and Miller (2006) at a 1:100,000 scale and the geological time scale of Cohen et al. (2023), as well as the findings of a geotechnical study by G.A. Nicoll and Associates (1994), the project site is underlain by Holocene and late Pleistocene (recent to approximately 129,000 years ago) young axial-channel deposits (map unit Qya) and the early Pliocene and late Miocene

(approximately 5.33 million years ago to 11.63 mya) siltstone facies of the Capistrano Formation in the north and at depth. Holocene and late Pleistocene young axial-channel deposits consist of slightly to moderately consolidated sand, silt, and gravel deposits. The Capistrano Formation generally consists of marine sandstone and siltstone. The siltstone facies of this formation consists of white to pale gray, massive to crudely bedded, friable siltstone and mudstone that can also contain sandstone, calcareous mudstone, and sparse beds of diatomaceous tuff (Morton and Miller 2006). The geotechnical report, which covers the easternmost portion of the project site where it abuts against the RTP, indicates approximately 15 to 23 feet of fill/jumbled sediments. These sediments could be part of the Holocene to late Pleistocene young landslide deposits mapped in the area, overlying the young axial-channel deposits or "alluvium," as identified in the geotechnical report, that were encountered from 34 to 54 feet below the ground surface. Lastly the Capistrano Formation was encountered at a depth between 41 and 55 feet below ground surface, lying underneath the "alluvium"/young axial-channel deposits (G.A. Nicoll and Associates 1994).

Dudek requested a paleontological records search from the Natural History Museum of Los Angeles County (NHMLA) and the Dr. John D. Cooper Archaeological and Paleontological Center (Cooper Center) on February 12, 2024. The results from NHMLA were received on February 18, 2024 (NHMLA 2024). NHMLA reported no fossil localities from within the project site but reported six localities from the same or nearby sediments as those that underlie the project site. Nine localities were reported from the Capistrano Formation (LACM VP [Los Angeles County Museum Vertebrate Paleontology] 3806, 4950, 4337, 5468, and 4979–4983) that yielded marine mammals, a baleen whale, an eared seal, and several other unidentified vertebrates. One Pleistocene locality (LACM 4543) yielded a bison specimen from the hillside of Sulphur Creek.

The results from the Cooper Center (OC Parks) were received on February 28, 2024 (Cooper Center 2024). They reported no fossil localities from within the project site but have record of nine localities from within a 1-mile radius of the project site in the same sediments as those found underlying the project site. Of the nine localities (00016, 00085, 00092, 00104, 00503, 00421, 00453, 00564, and 04300), seven occur within the Capistrano Formation and two are from the Monterey Formation, which underlies the Capistrano Formation. The fossils consist of invertebrates (arthropods, bivalves, gastropods, sea urchin, brachiopods), numerous fish species, sharks and rays, birds, mammals (toothed and baleen whales, dolphins and porpoises, camels, a felid, walrus, seals, rabbits, rodents, and sea cow), reptiles (crocodiles and turtles), numerous plant specimens, and trace fossils.

A literature search of Jefferson (2012, 1991) indicates several Pleistocene-age vertebrate fossil localities are known from this portion of south Orange County. A locality at Salt Creek in Laguna Niguel produced Pleistocene fossils of giant ground sloth, mastodon, mammoth, a possible tapir, and a large horse. Shea Homes Tract 12544, Golden Lantern, and Third Street, Laguna Niguel, yielded a large horse specimen. Another locality at Shea Homes Tract 12544 Lot 401 in Laguna Niguel produced an ice-age deer specimen. A locality just north of the project area, on Sulphur Creek Reservoir, LACM 4543, produced a bison specimen. LACM 4628–4629 from Laguna Niguel yielded mammoth, horse, tapir, and bison fossils.

The Holocene to late Pleistocene young axial-channel deposits/alluvium, aged less than 11,700 years ago, have not been shown to produce fossil resources and therefore have low paleontological resource sensitivity or potential near the surface, but the sensitivity increases with depth where sediments become old enough to preserve fossils.

The early Pliocene to late Miocene Capistrano Formation has been shown to produce significant invertebrate and vertebrate fossils and has high paleontological resource sensitivity or potential. No paleontological resources were identified within the project site as a result of the institutional records search or desktop geological and paleontological review. In addition, the project site is not anticipated to be underlain by unique geologic features. Areas of the project site underlain by Holocene to late Pleistocene alluvial surficial sediments have low paleontological resource sensitivity or potential, increasing to high with depth, and the early Pliocene to late Miocene Capistrano Formation has high paleontological resource sensitivity or potential. If intact paleontological resources are located on site, ground-disturbing activities associated with construction of the project, such as grading during site preparation, trenching for utilities, and large diameter (2 feet or greater) drilling, have the potential to destroy a unique paleontological resource or site. As such, the project site is considered to be potentially sensitive for paleontological resources, and without mitigation, the potential damage to paleontological resources during construction associated with the project is considered a potentially significant impact. Given the age of the underlying sediments, the project site has the potential to support paleontological resources below the depth of fill and Holocene surficial alluvial sediments. The project's grading plan is still in development, and it is likely earthwork will be limited to occurring within artificial fill, at which point there would be no impact on paleontological resources. If earthwork extends beyond artificial fill, **MM-GEO-1** would be implemented to ensure impacts would be reduced to below a level of significance. Impacts of the proposed project are considered less than significant with mitigation incorporated during construction.

MM-GEO-1 Paleontological Resources Impact Mitigation Program. Prior to commencement of any earth disturbance in native material, the Moulton Niguel Water District shall retain a qualified paleontologist per the 2010 Society of Vertebrate Paleontology (SVP) guidelines. The paleontologist shall prepare a Paleontological Resources Impact Mitigation Program (PRIMP) for the project. The PRIMP shall be consistent with the 2010 SVP guidelines and should outline requirements for pre-construction meeting attendance and worker environmental awareness training; where monitoring is required within the project site based on construction plans and/or geotechnical reports; procedures for adequate paleontological monitoring and discoveries treatment; and paleontological methods (including sediment sampling for microvertebrate fossils), reporting, and collections management. The qualified paleontologist shall attend the pre-construction meeting, and a qualified paleontological monitor shall be on site during all rough grading and other significant ground-disturbing activities (including augering) in previously undisturbed, fine-grained Pleistocene alluvial deposits or older deposits with high paleontological sensitivity. In the event that paleontological resources (e.g., fossils) are unearthed during grading, the paleontological monitor will temporarily halt and/or divert grading activity to allow recovery of paleontological resources. The area of discovery will be roped off with a 50-foot radius buffer. Once documentation and collection of the find is completed, the monitor will remove the rope and allow grading to recommence in the area of the find. Any fossil lab or curation costs (if necessary due to fossil recovery) are the responsibility of the project proponent.

3.8 Greenhouse Gas Emissions

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. GREENHOUSE GAS EMISSIONS – Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☐	☒	☐

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less than Significant. Greenhouse gases (GHGs) are gases that absorb infrared radiation (i.e., trap heat) in the earth's atmosphere. The trapping and buildup of heat in the atmosphere near the earth's surface (the troposphere) is referred to as the "greenhouse effect" and is a natural process that contributes to the regulation of the earth's temperature, creating a livable environment on earth. The earth's temperature depends on the balance between energy entering and leaving the planet's system, and many factors (natural and human) can cause changes in the earth's energy balance. Human activities that generate and emit GHGs to the atmosphere increase the amount of infrared radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the earth's surface temperature to rise. This rise in temperature has led to large-scale changes to the earth's system (e.g., temperature, precipitation, wind patterns), which are collectively referred to as climate change. Global climate change is a cumulative impact; a project contributes to this impact through its incremental contribution combined with the cumulative increase of all other sources of GHGs. Thus, GHG impacts are recognized exclusively as cumulative impacts (CAPCOA 2008).

As defined in California Health and Safety Code Section 38505(g) for purposes of administering many of the state's primary GHG emissions reduction programs, GHGs include CO_2, methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride (see also CEQA Guidelines Section 15364.5). The primary GHGs that would be emitted by project-related construction and operations include CO_2, CH_4, and N_2O.[7]

The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The reference gas

[7] Emissions of hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride are generally associated with industrial activities, including the manufacturing of electrical components and heavy-duty air conditioning units and the insulation of electrical transmission equipment (substations, power lines, and switch gears). Therefore, emissions of these GHGs were not evaluated or estimated in this analysis because the project would not include these activities or components and would not generate hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride in measurable quantities.

used is CO_2; therefore, GWP-weighted emissions are measured in MT of CO_2 equivalent (CO_2e). The current version of CalEEMod assumes that the GWP for CH_4 is 25 (so emissions of 1 MT of CH_4 are equivalent to emissions of 25 MT of CO_2), and the GWP for N_2O is 298, based on the Intergovernmental Panel on Climate Change's Fourth Assessment Report (IPCC 2007).

CEQA Guidelines Section 15064.7(c) specifies that "[w]hen adopting or using thresholds of significance, a lead agency may consider thresholds of significance previously adopted or recommended by other public agencies or recommended by experts, provided the decision of the lead agency to adopt such thresholds is supported by substantial evidence." The CEQA Guidelines do not prescribe specific methodologies for performing an assessment, establish specific thresholds of significance, or mandate specific mitigation measures. Rather, the CEQA Guidelines emphasize the lead agency's discretion to determine the appropriate methodologies and thresholds of significance that are consistent with the manner in which other impact areas are handled in CEQA (CNRA 2009).

As discussed in Section 3.3, the proposed project is located within the jurisdictional boundaries of SCAQMD. In October 2008, SCAQMD proposed recommended numeric CEQA significance thresholds for GHG emissions for lead agencies to use in assessing GHG impacts of residential and commercial development projects as presented in its Draft Guidance Document—Interim CEQA Greenhouse Gas (GHG) Significance Threshold (SCAQMD 2008b). This document, which builds on the California Air Pollution Control Officers Association's previous guidance, explored various approaches for establishing a significance threshold for GHG emissions. The draft interim CEQA thresholds guidance document was not adopted or approved by the Governing Board. However, in December 2008, SCAQMD adopted an interim 10,000 MT CO_2e per-year screening level threshold for stationary source/industrial projects for which SCAQMD is the lead agency (SCAQMD 2010). The 10,000 MT CO_2e per-year threshold, which was derived from GHG reduction targets established in Executive Order S-3-05, was based on the conclusion that the threshold was consistent with achieving an emissions capture rate of 90% of all new or modified stationary source projects.

SCAQMD formed a GHG CEQA Significance Threshold Working Group to work with SCAQMD staff on developing GHG CEQA significance thresholds until statewide significance thresholds or guidelines are established. From December 2008 to September 2010, SCAQMD hosted working group meetings and revised the draft threshold proposal several times, although it did not officially provide these proposals in a subsequent document. SCAQMD has continued to consider adoption of significance thresholds for residential and general land-use development projects. The most recent proposal issued by SCAQMD, issued in September 2010, uses the following tiered approach to evaluate potential GHG impacts from various uses (SCAQMD 2010):

Tier 1 Determine if CEQA categorical exemptions are applicable. If not, move to Tier 2.

Tier 2 Consider whether or not the proposed project is consistent with a locally adopted GHG reduction plan that has gone through public hearing and CEQA review, that has an approved inventory, includes monitoring, etc. If not, move to Tier 3.

Tier 3 Consider whether the project generates GHG emissions in excess of screening thresholds for individual land uses. The 10,000 MT CO_2e per-year threshold for industrial uses would be recommended for use by all lead agencies. Under option 1, separate screening thresholds are proposed for residential projects (3,500 MT CO_2e per year), commercial projects

(1,400 MT CO_2e per year), and mixed-use projects (3,000 MT CO_2e per year). Under option 2, a single numerical screening threshold of 3,000 MT CO_2e per year would be used for all non-industrial projects. If the project generates emissions in excess of the applicable screening threshold, move to Tier 4.

Tier 4 Consider whether the project generates GHG emissions in excess of applicable performance standards for the project service population (population plus employment). The efficiency targets were established based on the goal of Assembly Bill (AB) 32 to reduce statewide GHG emissions to 1990 levels by 2020. The 2020 efficiency targets are 4.8 MT CO_2e per-service population for project-level analyses and 6.6 MT CO_2e per-service population for plan-level analyses. If the project generates emissions in excess of the applicable efficiency targets, move to Tier 5.

Tier 5 Consider the implementation of CEQA mitigation (including the purchase of GHG offsets) to reduce the project efficiency target to Tier 4 levels.

To determine the proposed project's potential to generate GHG emissions that would have a significant impact on the environment, its GHG emissions were compared to the SCAQMD 3,000 MT CO_2e per year screening threshold recommended for non-industrial projects.

Construction

Construction of the project would result in GHG emissions, which are primarily associated with off-road construction equipment, on-road haul and vendor trucks, and worker vehicles. SCAQMD recommends that "construction emissions be amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008b). CalEEMod was used to calculate the annual GHG emissions, with detailed assumptions and results included in Appendix A-1. Table 3-10 presents the GHG emissions resulting from construction of the project.

Table 3-10. Estimated Annual Construction Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons				
2025	69.00	0.00	0.00	0.01	69.54
Total	**69.00**	**0.00**	**0.00**	**0.01**	**69.54**
			Amortized Construction Emissions (Over 30-Years)		*2.31*

Source: Appendix A-1.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R = refrigerants; CO_2e = carbon dioxide equivalent.
Totals may not add due to rounding

As shown in Table 3-10, the estimated total GHG emissions during construction would be approximately 70 MT CO_2e. Estimated project-generated construction emissions amortized over 30 years would be approximately 2 MT CO_2e per year. In addition, as with project-generated construction criteria air pollutant emissions, GHG emissions generated during proposed construction activities would be short term, lasting only for the duration of the construction period, and would not represent a long-term source of GHG emissions.

Operational Emissions

CalEEMod was used to estimate potential project-generated operational GHG emissions from vehicular sources, area sources (i.e., landscape maintenance), electrical generation, water and wastewater, refrigerants, and solid waste. All details for criteria air pollutants discussed in Section 3.3 are also applicable for the estimation of operational mobile source GHG emissions. With regard to long-term operations, the project would include one round trip per day to the project site for maintenance purposes.

Table 3-11 presents the annual GHG emissions associated with operation of the proposed project, which was based on CalEEMod default assumptions, except where otherwise specified. Additional details are included in Appendix A-1.

Table 3-11. Estimated Annual Operational Greenhouse Gas Emissions

Year	CO_2	CH_4	N_2O	R	CO_2e
	Metric Tons				
Mobile	11.65	0.00	0.00	0.02	11.82
Area	0.30	0.00	0.00	<0.01	0.31
Energy	1,146.91	0.06	0.01	<0.01	1,150.83
Water	0.14	0.00	0.00	<0.01	0.21
Waste	1.66	0.17	<0.01	<0.01	5.81
Refrigerant	<0.01	<0.01	<0.01	0.65	0.65
				Proposed Project Total	**1,169.61**
				Amortized Construction Emissions[a]	*2.31*
				Project Operations + Amortized Construction Total	**1,171.92**
				SCAQMD Threshold	*3,000*
				Exceeds Threshold?	*No*

Source: Appendix A-1.
Notes: CO_2 = carbon dioxide; CH_4 = methane; N_2O = nitrous oxide; R = refrigerants; CO_2e = carbon dioxide equivalent.
Totals may not sum due to rounding.
[a] Value from Table 3-10.

As shown in Table 3-11, the estimated annual project-generated GHG emissions would be approximately 1,170 MT CO_2e per year as a result of project operation. When summed with the amortized project construction emissions, the project's total GHG emissions would be approximately 1,172 MT CO_2e per year. Annual operational GHG emissions with amortized construction emissions would not exceed the SCAQMD threshold of 3,000 MT CO_2e per year. Therefore, the proposed project would not generate GHG emissions, either directly or indirectly, that may have a significant impact on the environment, and this impact would be less than significant.

b) Would the project generate conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less than Significant. Applicable plans for the project site include SCAG's 2024–2050 RTP/SCS and CARB's 2017 and 2022 Scoping Plan Updates to address SB 32 and AB 1279. Each of these plans is

described below along with an analysis of the proposed project's potential to conflict with the related GHG emission reduction goals.

Consistency with SCAG's 2024–2050 RTP/SCS

The SCAG 2024–2050 RTP/SCS is a regional growth management strategy that targets per capita GHG reduction from passenger vehicles and light trucks in the Southern California Region pursuant to SB 375 by achieving per-capita GHG emissions reductions relative to 2005 of 8% by 2020 and 19% by 2035 (SCAG 2024). In addition to demonstrating the region's ability to attain the GHG emission-reduction targets set forth by CARB, the 2024–2050 RTP/SCS outlines a series of actions and strategies for integrating the transportation network with an overall land use pattern that responds to projected growth, housing needs, changing demographics, and transportation demands. Thus, successful implementation of the 2024–2050 RTP/SCS would result in more complete communities with a variety of transportation and housing choices, while reducing automobile use.

The primary objective of the RTP/SCS is to provide guidance for future regional growth (i.e., the location of new residential and non-residential land uses) and transportation patterns throughout the region, as stipulated under SB 375. Given that the project involves the construction, operation, and maintenance of a wastewater treatment infrastructure, the goals and strategies of the RTP/SCS are not directly applicable. As such, the proposed project would not conflict with the goals and policies of the RTP/SCS, and impacts would be less than significant.

Consistency with State Reduction Targets and the California Air Resource Board's Scoping Plan

The California State legislature passed the Global Warming Solutions Act of 2006 (AB 32) to provide initial direction to limit California's GHG emissions to 1990 levels by 2020 and initiate the state's long-range climate objectives. Since the passage of AB 32, the state has adopted GHG emissions reduction targets for future years beyond the initial 2020 horizon year. For the proposed project, the relevant GHG emissions reduction targets include those established by SB 32 and AB 1279, which require GHG emissions be reduced to 40% below 1990 levels by 2030, and 85% below 1990 levels by 2045, respectively. In addition, AB 1279 requires the state achieve net zero GHG emissions by no later than 2045 and achieve and maintain net negative GHG emissions thereafter.

As defined by AB 32, CARB is required to develop the Scoping Plan, which provides the framework for actions to achieve the state's GHG emission targets. The Scoping Plan is required to be updated every 5 years and requires CARB and other state agencies to adopt regulations and initiatives that will reduce GHG emissions statewide. The first Scoping Plan was adopted in 2008, and it was updated in 2014, 2017, and most recently in 2022. Although the Scoping Plan is not directly applicable to specific projects, nor is it intended to be used for project-level evaluations,[8] it is the official framework for the measures and regulations that will be implemented to reduce California's GHG emissions in alignment with the adopted

[8] The Final Statement of Reasons for the amendments to the CEQA Guidelines reiterates the statement in the Initial Statement of Reasons that "the Scoping Plan may not be appropriate for use in determining the significance of individual projects because it is conceptual at this stage and relies on the future development of regulations to implement the strategies identified in the Scoping Plan" (CNRA 2009).

targets. Therefore, a project would be found to not conflict with the statutes if it would meet the Scoping Plan policies and would not impede attainment of the goals therein.

CARB's 2017 Scoping Plan update was the first to address the state's strategy for achieving the 2030 GHG reduction target set forth in SB 32 (CARB 2017); the most recent CARB 2022 Scoping Plan update outlines the state's plan to reduce emissions and achieve carbon neutrality by 2045 in alignment with AB 1279 and assesses progress toward the 2030 SB 32 target (CARB 2022b). As such, given that SB 32 and AB 1279 are the relevant GHG emission targets, the 2017 and 2022 Scoping Plan updates are the most applicable to the proposed project.

The 2017 Climate Change Scoping Plan Update included measures to promote renewable energy and energy efficiency (including the mandates of SB 350), measures to increase stringency of the Low Carbon Fuel Standard, measures identified in the Mobile Source and Freight Strategies, measures identified in the proposed Short-Lived Climate Pollutant Plan, and measures to increase stringency of SB 375 targets. The 2022 Scoping Plan for Achieving Carbon Neutrality builds upon and accelerates programs currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; and displacing fossil-fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines) (CARB 2022b).

Several of the measures and programs included in the Scoping Plan would result in the reduction of project-related GHG emissions with no action required at the project-level, including GHG emission reductions through a reduction in carbon intensity of transportation fuels (Low Carbon Fuel Standard) and the accelerated efficiency and electrification of the statewide vehicle fleet (Mobile Source Strategy). Given that the project is also not anticipated to result in a substantial increase in mobile trips, the project would also not conflict with the 2017 update's goal of reducing GHG emissions through reductions in vehicle miles traveled (VMT) statewide.

The 2045 carbon neutrality goal required CARB to expand proposed actions in the 2022 update to include those that capture and store carbon in addition to those that reduce anthropogenic sources of GHG emissions. The 2022 update emphasizes that reliance on carbon sequestration in the state's natural and working lands will not be sufficient to address residual GHG emissions, and achieving carbon neutrality will require research, development, and deployment of additional methods to capture atmospheric GHG emissions (e.g., mechanical direct air capture). Given that the specific path to neutrality will require development of technologies and programs that are not currently known or available, the project's role in supporting the statewide goal would be speculative and cannot be wholly identified at this time.

Overall, the proposed project would comply will all regulations adopted in furtherance of the Scoping Plan to the extent applicable and required by law. As mentioned above, several Scoping Plan measures would result in reductions of project-related GHG emissions with no action required at the project level, including those related to reduced fossil fuel use. As demonstrated above, the proposed project would not conflict with CARB's 2017 or 2022 Scoping Plan updates or with the state's ability to achieve the 2030 and 2045 GHG reduction and carbon neutrality goals.

Based on the preceding considerations, the proposed project would not conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing GHG emissions, and impacts would be less than significant.

3.9 Hazards and Hazardous Materials

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. HAZARDS AND HAZARDOUS MATERIALS – Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☐	☐	☒
d) Be located on a site that is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☐	☒	☐
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?	☐	☐	☐	☒
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	☐	☐	☒	☐

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction Impacts

Less than Significant. A variety of hazardous substances and wastes would be stored, used, and generated during construction of the proposed project. These would likely include fuels for machinery and vehicles, new and used motor oils, cleaning solvents, paints, and storage containers and applicators containing such materials. All contractors would be required to comply with applicable laws and regulations regarding hazardous materials, hazardous waste management, and disposal. Furthermore, proposed project construction would be required to be completed under a NPDES Construction General Permit, which requires a SWPPP and development of BMPs for all phases of construction and for potential pollutants generated by construction activities.

All chemicals that would be used during construction of the proposed project would be required to be managed in accordance with the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5) and the Hazardous Waste Control Regulations (22 CCR Division 4.5). Compliance with all applicable regulations regarding the transport, use, and disposal of hazardous materials would ensure that impacts would remain below a level of significance. Thus, impacts related to creation of a significant hazard to the public or the environment as a result of the proposed project would be less than significant.

Operational Impacts

Less than Significant. The District currently uses a number of hazardous materials for the operations and maintenance of its existing facilities. These hazardous materials include lubricant oils, paints, and diesel fuel (used to power emergency generators), as well as water treatment chemicals and relatively small quantities of off-the-shelf substances that do not represent a significant potential health hazard.

As with construction-related chemicals, the District is required to manage all transport, storage, use, and disposal of hazardous materials in accordance with California Health and Safety Code, Division 20, Chapter 6.95, Article 1, Sections 25500 to 25519, the California Hazardous Waste Control Law (California Health and Safety Code, Division 20, Chapter 6.5), and the Hazardous Waste Control Regulations (22 CCR Division 4.5). As part of these requirements, the District must prepare and implement a hazardous materials business plan that provides all measures to document the types and quantities of hazardous materials managed on site as well as training requirements for staff, spill response measures, handling requirements, and storage requirements. In addition, the District is one of 18 water and wastewater utilities that participates in the Orange County Regional Water and Wastewater Hazard Mitigation Plan, which provides a framework for water and wastewater utilities in Orange County to reduce their vulnerability to the impacts of natural and human-caused hazard events, such as earthquakes, flooding, and hazardous materials spills (MWDOC 2019). The District provides equipment and training to its personnel to detect, respond to, mitigate, and abate hazards that could occur during an accidental release of hazardous materials. The proposed project would introduce additional hazardous materials to the site (e.g., water stabilization chemicals such as sodium hydroxide or calcium hydroxide) during the operation and maintenance phase that would also be incorporated into the existing hazardous materials business plan. Therefore, with adherence to existing regulatory requirements, the

proposed project would pose a less-than-significant impact to the public and the environment through the routine transport, use, or disposal of hazardous materials.

b) Would the project 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?

Construction Impacts

Less than Significant. Construction activities on the project site would involve the transport of fuels, oils, and other hazardous materials to the site. Relatively small amounts of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents, would be used on site that are typical of construction activities. The materials alone and use of these materials for their intended purpose would not pose a significant risk to the public or environment; however, accidental spills of hazardous materials during construction could potentially result in exposure hazards to workers, soil contamination, or water quality impacts. To minimize/eliminate upset and accident conditions, all construction activities would be in compliance with a SWPPP, and vehicles would be adequately maintained and equipped. All equipment maintenance work, including refueling, would occur off site or within the designated construction staging area. All potentially hazardous construction waste, including trash, litter, garbage, other solid wastes, petroleum products, and other potentially hazardous materials, would be removed to a hazardous waste facility permitted to treat, store, or dispose of such materials.

Therefore, with compliance with all applicable federal, state, and local regulations, construction of the project would not 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, and impacts would be less than significant.

Operational Impacts

Less than Significant. Any potentially hazardous materials handled on the project site during operation of the project would be limited in quantity and concentration, and any handling, transport, use, and disposal would be consistent with existing protocols consistent with the existing hazardous materials business plan and would comply with applicable federal, state, and local regulations. Therefore, with compliance with all applicable federal, state, and local regulations, the project would not 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, and impacts would be less than significant.

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

No Impact. The nearest school to the project site is Orange County Academy of Sciences and Arts Elementary School, located approximately 0.5 miles to the east of the project site. Therefore, the project would not emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. No impact would occur.

d) Would the project be located on a site that 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?

Less than Significant. The California Department of Toxic Substances Control's EnviroStor database tracks cleanup, permitting, enforcement, and investigation efforts at hazardous waste facilities and sites with known contamination. According to the database search, no sites or facilities listed in the database are located within or adjacent to the project site (DTSC 2024). The nearest identified EnviroStor database site is the Laguna Niguel Elementary School, a school investigation case, located approximately 1 mile north of the project site. However, the current status of the case is that no further action is required (DTSC 2024).

The State Water Resources Control Board's GeoTracker database identifies leaking underground storage tanks, waste discharge sites, oil and gas sites, and other waste or cleanup sites. A review of GeoTracker did not identify any sites or facilities within or immediately adjacent to the project site outside of the RTP itself being listed for having an active waste discharge order as part of operations (SWRCB 2024a). The nearest identified GeoTracker database site is the 1 HR Golden Cleaners, a Cleanup Program Site, located approximately 0.75 miles east of the project site (SWRCB 2024a). However, the current status of this site is listed as completed, case closed (SWRCB 2024a).

According to EPA, neither the project site nor its surroundings are included in the National Priority List (also known as Superfund Site) (EPA 2024). The database that includes solid waste disposal sites having waste constituents above hazardous waste levels also does not include the project site or vicinity (CalEPA 2024). Finally, the project site is not listed with the State Water Resources Control Board for any Cease and Desist Orders or Cleanup and Abatement Orders (SWRCB 2024b).

As a result of the findings of the database searches, the site is not listed on any hazardous materials sites pursuant to Government Code Section 65962.5, also known as the Cortese List, and the potential for adverse effects to occur is less than significant.

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 the John Wayne Airport, located approximately 13.1 miles to the northwest. The proposed project would not be located in the airport influence area for the John Wayne Airport (Orange County ALUC 2008). Therefore, the project would not result in a safety hazard for people residing or working in the project area, and there would be no impact.

f) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less than Significant. Emergency response within the Orange County Operational Area is managed by Orange County's Emergency Operations Center, which coordinates disaster response and recovery for the operational area, including all political subdivisions of Orange County, and communicates resource requirements and availability with the State Regional Operations Center. The Emergency Operations Center has a number of emergency response plans in place should an emergency or disaster occur. Additionally, the City is a member of the Orange County Operational Area and the Orange County Emergency

Management Organization. Both of these entities provide mutual aid to communities via the Orange County Sheriff's Department, the Orange County Fire Authority, and the State of California Office of Emergency Services. Major arterials serve as the primary routes for evacuation; however, evacuation routes depend on the emergency event and area affected. The construction and operation of the additional wastewater treatment infrastructure that would occur under the proposed project would all be located at the existing RTP, which would not interfere with an adopted emergency response plan or evacuation plan, nor would it substantially impede public access or roadway circulation. Therefore, the proposed project would have less-than-significant impacts.

g) Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

Less than Significant. The project area is susceptible to wildland fires and urban fires, which are dependent on a variety of conditions, such as weather, topography, and vegetation types, that can all affect the intensity of wildfires. However, according to California Department of Forestry and Fire Protection (CAL FIRE), the project site is located within a non-very high fire hazard severity zone (CAL FIRE 2011). In addition, all proposed improvements to the existing RTP would be constructed, as applicable, in accordance with local and state fire code requirements. The proposed project would not involve development of any structures intended for human occupancy. As such, the proposed project would not expose people or structures to a significant risk of loss, injury, or death involving wildland fires; therefore, impacts would be less than significant.

3.10 Hydrology and Water Quality

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
X. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	☐	☐	☒	☐
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	☐	☐	☒	☐
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would:				
i) result in substantial erosion or siltation on- or off-site;	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
ii) substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or offsite;	☐	☐	☒	☐
iii) create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff; or	☐	☐	☒	☐
iv) impede or redirect flood flows?	☐	☐	☒	☐
d) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	☒	☐
e) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	☒	☐

a) Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less than Significant. The 44-acre Laguna Niguel Lake is a human-made reservoir formed by the Sulphur Creek Dam, which impounds Sulphur Creek, a small tributary of Aliso Creek. A concrete-lined segment of Sulphur Creek flows from south to north past the existing RTP before discharging into Laguna Niguel Lake. As discussed in Section 1.1, Project Background Overview, TDS levels in the wastewater flowing into the existing RTP have significantly increased in recent years, which accordingly has increased TDS levels in the recycled water produced at the plant. TDS include salts, minerals, dissolved metals, and organic matter that, when present in high concentrations in recycled water, make the water unsuitable for use in irrigation. The District's project would install additional treatment infrastructure at their AWT facility to reduce TDS in its treated wastewater, which would improve the quality of its recycled water in accordance with State of California standards. Water quality requirements for SOCWA and its member agencies are outlined in the San Diego RWQCB's Order 97-52, which requires that the member agencies establish and enforce rules and regulations governing the design, construction, and use of recycled water distribution and disposal systems by its customers.

Construction of the project would include earthwork activities that could potentially result in erosion and sedimentation, which could subsequently degrade downstream receiving waters and violate water quality standards. Because the project would result in approximately 1 acre of ground disturbance, the project would be subject to the NPDES stormwater program, which includes obtaining coverage under the State Water Resources Control Board's Construction General Permit. Construction activities subject to the Construction General Permit include clearing, grading, and disturbances to the ground, such as stockpiling

and excavation. The Construction General Permit requires development and implementation of a SWPPP. Among the required items that must be included within a SWPPP are project design features, or BMPs, intended to protect against substantial soil erosion (e.g., use of straw bales, silt fences, and stormwater inlet protections). Implementation of the Construction General Permit, including preparation of a SWPPP and implementation of BMPs, would reduce stormwater runoff during project construction impacts to less-than-significant levels.

Once constructed, project operation would consist of a system of components that would provide additional treatment capabilities to reduce TDS levels of the recycled water produced by the facility. The RTP facility would still be required to adhere to all water quality requirements contained in the San Diego RWQCB's Order 97-52. In addition, the project would include construction of drainage control features for any newly paved areas. including the proposed parking lot and laydown area, consistent with NPDES Orange County Municipal Separate Storm Sewer System (MS4) permit requirements and the Orange County Hydrology Manual. These drainage control requirements include measures to ensure that there are treatment control BMPs that are designed to provide treatment of stormwater runoff on site (e.g., retention/detention basins, bioswales, bioretention vegetated planters, and underground infiltration trenches). These treatment control BMPs are designed to treat stormwater pollutants and are effective in minimizing the transport of pollutants off site. As a result, operation of the project would be designed to improve water quality of the treated water compared to existing conditions and include drainage control features (treatment control BMPs) to provide on-site treatment of stormwater runoff that is consistent with existing drainage control requirements. Therefore, the proposed project would not violate any water quality standards or waste discharge requirements and would have a less-than-significant effect on surface water or groundwater quality.

b) Would the project 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. The proposed project is not anticipated to encounter groundwater during excavation or ground-disturbing activities; however, the potential for encountering groundwater exists depending on the depth to groundwater. Should groundwater be encountered and dewatering be necessary during construction, a general NPDES dewatering permit from the San Diego RWQCB would be obtained. Discharges would be made in accordance with the San Diego RWQCB requirements outlined in Order No. R9-2008-0002, General Waste Discharge Requirements for Discharges from Groundwater Extraction and Similar Discharges to Surface Waters within the San Diego Region, which includes southern Orange County. If necessary, groundwater would be pumped out of the excavation and discharged in accordance with the SWPPP and/or general waste discharge requirements. The amount of potential groundwater pumped would have minimal effects on the local aquifer because it would be temporary, would be localized, and would most likely consist of perched groundwater. Potential impacts associated with dewatering would be further reduced through the incorporation of waste management and materials pollution control BMPs and non-stormwater management BMPs included in the SWPPP.

Once constructed, the proposed improvements would be located within the existing project site but in an area that currently includes pervious areas, and the proposed parking lot and laydown area could be constructed of impervious asphalt. Overall, these proposed improvements could result in an increase in impervious surfaces. Any increase in impervious surfaces would cause a decrease in surface areas providing groundwater recharge. However, the proposed project includes implementation of stormwater drainage control requirements that are consistent with the Orange

County MS4 regional NPDES permit and the Orange County Hydrology Manual. These drainage control requirements include drainage control requirements that prioritize detaining stormwater runoff and allowing for on-site infiltration to the extent feasible. The proposed project does not otherwise include any components that would require the use of groundwater. For these reasons, the proposed project would have less-than-significant impacts on groundwater.

c) Would the project 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. The existing drainage pattern at the RTP would be temporarily altered as a result of construction activities that include open-cut trenching and excavation for connections to existing facilities. Surface disturbances associated with open-cut trenching and installation of the proposed pipelines could expose soils to the effects of erosion and transport of siltation off site. However, as noted above, a SWPPP would be prepared that would include erosion control BMPs, consistent with NPDES permit requirements, which would be implemented during project construction to prevent pollutants from contacting stormwater and to reduce the potential for on-site and off-site erosion and sedimentation. With regard to sedimentation, control measures could include perimeter protection, storm drain inlet protection, and/or velocity reduction measures. Once the proposed improvements are installed, the disturbed areas would be returned to pre-project conditions, and new impervious surface areas would include storm drainage features to manage runoff in a manner that is protective of water quality and minimizes the potential for erosion or siltation. As such, the proposed improvements would have a minimal impact on existing drainage patterns that could potentially result in substantial on-site or off-site erosion or siltation. Therefore, with implementation of BMPs identified in the SWPPP, consistent with existing regulatory requirements, construction impacts associated with substantial on- or off-site erosion or sedimentation 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 offsite?

Less than Significant. The proposed improvements include construction of asphalt and concrete paving for vehicle and pedestrian access as well as a metal building to house the system components, and potentially the proposed parking lot/laydown area, some of which would be located in areas that are currently pervious. If not designed appropriately, the new impervious surfaces could increase the volume of runoff that is discharged off site. However, as noted above, the proposed improvements would include drainage control features as part of the required design plans, which not only address water quality but also water quantity consistent with the MS4 permit requirements and the Orange County Hydrology Manual. These requirements would include minimum requirements for on-site retention/detention of peak stormwater flows to ensure that there are no adverse effects related to flooding on or off site. Therefore, impacts associated with surface runoff and on-site or off-site flooding as a result of the proposed project 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. While the project would result in an increase in impervious surfaces, the inclusion of required post-construction drainage control features would ensure that off-site discharges do not exceed the capacity of downstream stormwater drainage systems. These features would also include post-construction treatment BMPs to protect water quality and minimize the potential for any additional source of polluted runoff. During construction, a SWPPP would be prepared and implemented that would include erosion- and sedimentation-control BMPs to reduce the potential for any adverse effects related to water quality. Therefore, there would be no other potential sources of polluted runoff that is not already discussed above, and the inclusion of post-construction BMPs as part of project design plans that are consistent with the MS4 permit requirements and the Orange County Hydrology Manual would ensure that impacts associated with runoff would be less than significant.

iv) Impede or redirect flood flows?

Less than Significant. The project site partially includes areas that are located within a 100-year flood hazard zone, specifically a Regulatory Floodway, which is associated with the concrete-lined segment of Sulphur Creek, which runs past the facility (FEMA 2024). There is also an area west of the channel that is located in an area mapped as either a 500-year flood zone or 100-year flood zone where the average flood depth is less than 1 foot (FEMA 2024). The proposed project would include construction of an approximately 8,000-square-foot metal building that could redirect flood flows if located within the 100-year flood zone. However, an 8,000-square-foot structure is relatively small, and regardless, all proposed improvements would be designed and constructed in accordance with the City's Title 9, Article 4 (Floodplain Management) requirements including the standards of construction for nonresidential structures. With conformance to the City's requirements, the implementation of the project would have a less-than-significant impact related to impeding or redirecting flood flows.

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

Less than Significant. As mentioned above, the project site includes areas within a flood hazard zone (FEMA 2024) and would include the storage and handling of hazardous materials for the proposed water treatment processes. However, all hazardous materials that would be stored on the project site would be required to conform to the regulatory requirements for the storage of hazardous materials, including the California Health and Safety Code, Division 20, Chapter 6.95, Article 1, Sections 25500 to 25519, as well as the City's municipal code for floodplain management. These requirements include the use of appropriate storage containers and all applicable floodplain protection measures that could include ensuring that finished floor elevations are at least 1 foot above the floodplain elevation. Otherwise, the project site is not immediately adjacent to an enclosed body of water where seiche wave hazards might be present (the reservoir is sufficiently north, approximately 0.25 miles, of the project site), and not within any tsunami hazard areas. Therefore, a less-than-significant impact would occur.

e) Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less than Significant. As discussed above, the proposed project would have less-than-significant impacts on water quality with implementation of a SWPPP and adherence to NPDES General Construction Permit and MS4 permit requirements, which would not conflict with or obstruct with a water quality control plan. Additionally, implementation of the proposed project would provide capabilities to increase water quality of the treated water that is discharged to the existing recycled water reservoirs, which could improve water quality of receiving waters. The project would also not include the use of groundwater and as a result would not conflict with any groundwater management plan. Therefore, for these reasons, impacts would be less than significant.

3.11 Land Use and Planning

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	☐	☐	☐	☒
b) Cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?	☐	☐	☐	☒

a) Would the project physically divide an established community?

No Impact. The physical division of an established community is typically associated with construction of a linear feature, such as a major highway or railroad tracks, or removal of a means of access, such as a local road or bridge, which would impair mobility within an existing community or between a community and an outlying area. Construction activities would occur within the existing RTP and adjacent to the RTP's primary access road. No long-term lane closures would occur within the public right-of-way; therefore, construction of the project would not divide established communities. Upon completion of the project components, access and mobility to existing communities would remain the same. Therefore, the proposed project would not physically divide an established community, and no impacts would occur.

b) Would the project cause a significant environmental impact due to a conflict with any land use plan, policy, or regulation adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The project site is designated as Open Space and Public/Institutional in the City's General Plan and zoned OS (Open Space District) and PI (Public/Institutional District). The project would include the construction and operation of additional wastewater treatment infrastructure at the existing RTP and the

construction a new parking and laydown area adjacent to the RTP's primary access road. Section 9-1-50 of the City's municipal code states that parking lots and other parking facilities are permitted in the OS zone if it is accessory to the principal use on the site. The project sites are within the existing RTP property, and the parking lot would be accessory to the existing RTP facility. Therefore, implementation of the project would not conflict with the applicable zoning. The project would not directly cause or indirectly contribute to changes in land use or other environmental changes outside of the RTP property. As described in Section 3.4, the project is within the boundaries of the Central/Coastal Subarea Plan of the OC NCCP/HCP. However, the project site is not mapped within any conservation areas, linkages, or habitat reserves, and the construction of the proposed project would result in less-than-significant impacts with regard to any adopted or approved conservation plan. Therefore, the project would not be in conflict with an adopted habitat conservation plan or natural community conservation plan. Thus, the project would not conflict with any land use policies or regulations, and no impacts would occur.

3.12 Mineral Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. MINERAL RESOURCES – Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☐	☐	☒
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	☐	☐	☐	☒

a) Would the project 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?

And

b) Would the project 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?

No Impact. The City is within Mineral Resource Zones (MRZs) MRZ-1 and MRZ-3. MRZ-1 identifies areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence, and MRZ-3 identifies areas containing mineral deposits, the significance of which cannot be evaluated from available data. The City's General Plan and Zoning Code does not designate any areas in the City for mineral resources or mineral resource activities (City of Laguna Niguel 2023). Therefore, the project would not result in any loss of availability of a known mineral resource or locally important mineral resource recovery site, and no impact would occur.

3.13 Noise

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. NOISE – 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?	☐	☐	☒	☐
b) Generation of excessive groundborne vibration or groundborne noise levels?	☐	☐	☒	☐
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☐	☐	☒

The impact analysis in this section is based on ambient noise measurements and predictive modeling of construction noise and operational noise emitted by the project, conducted by Dudek. Technical information associated with the noise study is provided in Appendix D, Baseline Field Noise Measurement Data.

Existing Setting

The project would be located within the existing RTP property in the City, within an area largely characterized by single-family residential development interspersed with public uses, commercial development, and open space. The site is situated in a small canyon just south of the Laguna Niguel Regional Park, which is owned and operated by OC Parks.

Represented by locations ST1, ST2, and ST3, the existing outdoor ambient sound environment of York Field was sampled during a field survey conducted on June 25, 2024 (see Figure 8, Noise Measurement Locations). Collected sample sound pressure level measurements at these locations, along with documented investigator observations regarding perceived or witnessed acoustical contributors to this baseline or pre-project noise environment, also appear in Table 3-121. These locations are intended to be representative of the existing single-family homes adjoining the project area. Photographs, tagged survey positions, and instrument details can be found in Appendix D.

Table 3-12. Measured Samples of Existing Outdoor Ambient Sound Level

Survey Position	Description/Address	Time	L_{eq} (dBA)	L_{max} (dBA)	L_{min} (dBA)	Notes (Perceived Sound Sources)
ST1	Northeast of project site, along La Paz Road	10:35 a.m.–10:50 a.m.	65.8	50.1	39.5	Traffic, birds, rustling leaves
ST2	Southeast of project site, along Kings Road	10:59 a.m.–11:14 a.m.	54.8	74.3	40.1	Traffic, birds, distant industrial, rustling leaves
ST3	South of project site, within the RTP property	11:34 a.m.–11:49 a.m.	51.0	69.2	47.1	Traffic, birds, distant industrial, rustling leaves

Source: Appendix D.
Notes: L_{eq} = equivalent continuous sound level (time-averaged sound level); dBA = A-weighted decibel; L_{max} = maximum sound level during the measurement interval; L_{min} = minimum sound level during the measurement interval; RTP = Regional Treatment Plant.

The measured outdoor energy-equivalent sound level (L_{eq}) values appearing in Table 3-12 range from 51.0 to 65.8 A-weighted decibels (dBA) and are consistent with expectations for the environment based on the distance to roadways, such as La Paz Road and Kings Road. For instance, guidance from the Federal Transit Administration (FTA) on estimating outdoor ambient sound level indicates that noise from "other roadways" 10 to 50 feet away from a receptor would be an estimated 70 dBA L_{eq} during daytime hours (FTA 2018).

Regulatory Setting and Thresholds of Significance

The District has not established noise limits or thresholds. For this analysis, the District has opted to consider noise impacts from the project relative to guidance and thresholds of the City and from FTA, as discussed below.

Local Noise Ordinance and General Plan Guidance

Section 6-65 of the City's municipal code establishes exterior noise thresholds of 55 dBA from 7:00 a.m. to 10:00 p.m. and 50 dBA from 10:00 p.m. to 7:00 a.m. Section 6-6-7 of the City's municipal code exempts permitted construction during daytime hours from noise level regulations but does not quantify allowable construction noise levels. The City's General Plan Noise Element also provides the following relevant policies (City of Laguna Niguel 1992):

- "Normally acceptable" community noise exposure levels shall not exceed 60 dBA day/night average sound level (L_{dn}) or community noise equivalent level (CNEL) for low-density, single-family residential land uses and 65 dBA L_{dn} or CNEL for multifamily residential and transient lodging land uses.
- "Conditionally acceptable" CNEL shall not exceed 70 dBA L_{dn} or CNEL for low-density, single-family residential land uses and multifamily residential land uses.

These limits are intended as guidelines for considering land-use decisions affected by permanent noise sources, and not by construction noise.

The City's municipal code does not have a vibration threshold against which project construction-related groundborne vibration impacts to the community can be assessed. For purposes of this impact assessment, a vibration velocity level of 0.2 inches per second (ips) peak particle velocity (PPV) is used as the standard for

evaluating human annoyance (to perceived groundborne vibration within an occupied structure) and the potential risk for residential building damage due to "continuous" or frequently occurring groundborne vibration events (Caltrans 2020).

Federal Guidance

Lacking quantified noise limits for construction noise at the local level, this assessment adopts the FTA-based guidance of 80 dBA 8-hour L_{eq} at a noise-sensitive residential exterior to determine impact significance.

a) 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?

Less than Significant.

Construction

Construction of the project would result in the temporary generation of noise at the project site and from delivery trucks traveling local roadways to access the site. Construction would involve the use of heavy equipment and machinery, such as excavators, loaders, cranes, temporary generators, scrapers, and other equipment. Construction would generate levels of noise that can vary from hour to hour and day to day depending on the equipment in use, the operations being performed, and the distance between the source and receptor. Typically, construction equipment operates in alternating cycles of full power and low power, producing average noise levels less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time. Table 3-13 presents the estimated construction noise level (8-hour L_{eq}) for each anticipated phase of project construction activity. Details of these predictions in Appendix D show the expected acoustical contribution from each type of operating construction equipment for each phase.

Table 3-13. Estimated Per-Phase Construction Noise Levels

Project Construction Activity Phase	Nearest Horizontal Distance to Nearest Noise-Sensitive Receptor (feet)	Predicted 8-hour L_{eq} (dBA) for Nearest Distance	Centroid Horizontal Distance to Nearest Noise-Sensitive Receptor (feet)	Predicted 8-hour L_{eq} (dBA) for Centroid Distance
Site mobilization, clearing, grubbing, and vegetation removal	250	65.6	475	59.3
Site earthwork	250	64.2	475	58.0
Pipe installation	250	60.7	475	54.4
Treatment system installation	250	62.5	475	56.3
Access road paving	250	61.2	475	55.0
Landscaping	250	56.8	475	50.6

Source: Appendix D.
Note: L_{eq} = energy-equivalent sound level; dBA = A-weighted decibel.

The predicted aggregate noise levels for some of the six studied construction activity phases would be higher (by up to 14.6 dBA) than the samples of baseline outdoor ambient noise levels appearing in Table 3-12 and would represent an audible change to the environment, but only temporarily. Furthermore, all predicted levels are less than the 80 dBA 8-hour L_{eq} FTA-based standard and would therefore result in a less-than-significant impact.

Operation

For purposes of this analysis, the proposed treatment and pump stations would be expected to feature an unknown number of air-handling units and air-cooled chillers located on each building's rooftop. Source sound power levels of these equipment were estimated with expressions that consider minimum air intake and likely cooling load (as a function of square footage and comparable building type or function as approximated from an HVAC equipment manufacturer [Loren Cook Company 1999]). The closest existing noise-sensitive residential receptor to the east of the proposed project site would be as close as 470 horizontal feet to the nearest of these HVAC units. The predicted sound emission levels from the combination of all operating HVAC units would be less than 40 dBA at a radius of over 100 feet from each building, as shown in Figure 9, Predicted Stationary Source Operation Noise from Proposed Project. Thus, the predicted HVAC-associated operational sound emission levels would less than the existing outdoor ambient level at the nearest residences and would be compliant with the City's nighttime threshold of 50 dBA hourly L_{eq}. Details of the modeling inputs and the corresponding prediction results can be found in Appendix D.

The proposed treatment and pump stations would also feature a series of feed pumps and cartridge filters associated with the chemical and RO treatment process. These noise-producing mechanical equipment would be located inside the building or underground to minimize noise, and their noise emission would attenuate over 470 horizontal feet (the distance to the closest existing noise-sensitive residential receptor to the east), resulting in negligible sound emission levels associated with the project's treatment operations.

For these reasons, project operation noise received by nearby residences would be a less-than-significant impact.

b) Would the project result in generation of excessive groundborne vibration or groundborne noise levels?

Less than Significant. Vibration is oscillatory movement of mass (typically a solid) over time. Depending on their distances to a sensitive receptor, operation of large bulldozers, graders, loaded dump trucks, or other heavy construction equipment and vehicles on a construction site have the potential to cause high vibration amplitudes.

Groundborne vibration attenuates rapidly, even over short distances. The attenuation of groundborne vibration as it propagates from source to receptor through intervening soils and rock can be estimated with expressions found in FTA and the California Department of Transportation guidance. By way of example, for a bulldozer or grader operating as close as 250 feet to the nearest receiving residential land use during

the site mobilization construction phase as shown in Table 3-13, the estimated vibration velocity level would be 0.0028 ips per the equation as follows (FTA 2018):

$$PPV_{rcvr} = PPV_{ref} \times (25/D)^{1.5} = 0.0028 \text{ ips } PPV = 0.089 \times (25/250)^{1.5}$$

In the above equation, PPVrcvr is the predicted vibration velocity at the receiver position (i.e., residence), PPVref is the reference value at 25 feet from the vibration source (the bulldozer), and D is the actual horizontal distance to the receiver from the source.

During site paving, operation of a vibratory roller is anticipated and could be as close as 250 feet to an existing home. Because the roller exhibits more vibration than the previous dozer or grader example, having a reference PPV (PPV_{ref}) of 0.21 ips at 25 feet, its groundborne vibration would attenuate to 0.0066 ips PPV. Both predicted groundborne vibration velocity PPV values associated with project construction are below the 0.2 ips PPV threshold for building occupant annoyance and building damage risk. Impacts during construction would be less than significant.

Once operational, the proposed project would not be expected to feature major producers of groundborne vibration. Anticipated mechanical systems like HVAC units are designed and manufactured to feature rotating (fans, motors) and reciprocating (compressors) components that are well balanced with isolated vibration within or external to the equipment casings. For this reason, project operation groundborne vibration at off-site receptors would be considered less than significant.

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 nearest public airport is John Wayne Airport, approximately 13.1 miles from the project site. Thus, there are no public airports or private airfields within 2 miles of the project, and the project area is far from any aviation traffic noise contour greater than 65 dBA CNEL. Construction workers and park users would not be exposed to significant aviation noise levels. No impact would occur.

3.14 Population and Housing

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. POPULATION AND HOUSING – 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)?	☐	☐	☐	☒

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

a) ***Would the project 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)?***

No Impact. The proposed project would construct and operate additional wastewater treatment infrastructure at the existing RTP and does not propose the construction of new housing or businesses. As such, it is not anticipated to directly or indirectly induce population growth in the project area. Furthermore, the proposed project is not expected to generate a permanent increase in employment opportunities in the project area capable of inducing population growth. No impact would occur.

b) ***Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?***

No Impact. The project site is undeveloped and does not contain housing; therefore, the proposed project would not result in the displacement of people or housing. No impact would occur.

3.15 Public Services

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. PUBLIC SERVICES – Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:				
Fire protection?	☐	☐	☐	☒
Police protection?	☐	☐	☐	☒
Schools?	☐	☐	☐	☒
Parks?	☐	☐	☐	☒
Other public facilities?	☐	☐	☐	☒

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the public services:

Fire protection?

No Impact. The proposed project would not include the addition of housing, schools, or other community facilities that might require fire protection or that would change service ratios. As described in Section 3.14(a), the proposed project would also not indirectly induce the addition of housing, schools, or other community facilities because the proposed project would construct and operate additional wastewater treatment infrastructure at the existing RTP. As a result, no impact to fire protection services would occur.

Police protection?

No Impact. The proposed project would not include the addition of housing, schools, or other community facilities that might require police protection. As described in Section 3.14(a), the project would also not indirectly induce additional housing, schools, or other community facilities. Construction of the wastewater treatment infrastructure would not change local police protection response times or affect demand for police protection services in the project area. Therefore, there would be no impact to police protection.

Schools?

No Impact. The proposed project would not involve a housing component that would result in population growth or increased demands on existing schools within the area. Therefore, no impact to schools would occur.

Parks?

No Impact. The proposed project would not involve a housing component or increase employment opportunities that would result in population growth. Therefore, additional demands on existing public parks would not occur as a result of project implementation, and there would be no impact.

Other public facilities?

No Impact. Refer to the responses above. Because the proposed project would not involve any housing or increase in employment opportunities within the area, there would be no impact on other public facilities.

3.16 Recreation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. RECREATION				
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒

a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact. The proposed project would not involve a housing component or permanently increase employment opportunities within the area; therefore, the project would not increase the use of existing neighborhood or regional parks or other recreational facilities, and there would be no impact.

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. The proposed project would not affect existing recreational resources or require the need for new or expanded recreational facilities. The existing maintenance road running along the Sulphur Creek channel, which is also used for recreational purposes, is located below grade from the proposed project sites, with the RTP access road crossing over the maintenance road via a bridge. Recreational access will remain open during project construction, and the maintenance road will be unaffected by the project. Therefore, there would be no impact associated with recreational facilities.

3.17 Transportation

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII. TRANSPORTATION – Would the project:				
a) Conflict with a program, plan, ordinance, or policy addressing the circulation system, including transit, roadway, bicycle, and pedestrian facilities?	☐	☐	☒	☐
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3, subdivision (b)?	☐	☐	☒	☐
c) Substantially increase hazards due to a geometric design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☒	☐
d) Result in inadequate emergency access?	☐	☐	☒	☐

This section evaluates the potential transportation-related impacts of the project, including the potential for the project to conflict with a program, plan, ordinance, or policy addressing the circulation system, substantially increase hazards, or result in inadequate emergency access. The section also analyzes the potential impacts of the project based on CEQA Guidelines Section 15064.3(b), which focuses on VMT for determining the significance of transportation impacts. Pursuant to SB 743, the focus of transportation analysis in CEQA documents has changed from level of service or vehicle delay to VMT.

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

Less than Significant. The project would not conflict with applicable programs, plans, ordinances, or policies addressing the circulation system, as further discussed below. This includes the City's General Plan Circulation Element (City of Laguna Niguel 1992) and the existing and proposed roadway, pedestrian, bicycle, and transit facilities and services in the study area.

City of Laguna Niguel General Plan Circulation Element

The Circulation Element addresses the circulation improvements needed to relieve traffic congestion due to future land uses, while also addressing potential demand management strategies and transit services. Corresponding goals and policies have been adopted to ensure all components of the circulation system will meet the needs of the City (City of Laguna Niguel 1992). The following general goals were considered in the analysis:

Goal 3: A circulation system that maximizes efficiency through the use of transportation system management and demand management strategies.

Goal 4: An efficient public transportation system that provides mobility to all City residents, employees and visitors.

Goal 5: An efficient bicycle, equestrian and pedestrian circulation system that encourages these alternative forms of transportation.

Goal 8: A truck circulation system that provides effective transport of commodities while minimizing the negative impacts throughout the City.

Transit, Bicycle, and Pedestrian Facilities

Public transportation in the City is provided by Orange County Transportation Authority. Near the project site, Orange County Transportation Authority operates Route 85 via Crown Valley Parkway and Marguerite Parkway, providing service between Laguna Niguel and Mission Viejo. Major destinations include the South Orange County Courthouse, the Town Center South, the Mission Viejo/Laguna Niguel Metrolink Station, the Shops at Mission Viejo, and Portola Plaza. The route operates Monday through Friday from approximately 5:30 a.m. to 10:00 p.m. There is no weekend service. The nearest bus stop to the site is provided on Crown Valley Parkway, near La Paz Road, approximately 0.5 miles south of project site (OCTA 2024).

The Salt Creek Class I (off-road dedicated multi-use path) connecting Crown Valley Park and Laguna Niguel Regional Park passes the RTP facility on the east, paralleling the Sulphur Creek channel and crossing beneath the RTP access road. The City has a comprehensive sidewalk network; sidewalks are provided on all major roads near the project site, and crosswalks are provided at all signalized intersections near the site.

Impact Analysis

Construction

The project would result in a temporary, short-term increase in traffic during construction. This includes construction workers driving to and from the project site and the delivery of large construction equipment and hauling trips to the site as needed. Construction is anticipated to occur over a total duration of 10 months. Typical construction work hours would be Monday through Friday, 7:00 a.m. to 5:00 p.m. Night work and weekend work are not anticipated. As shown above in Table 3-2, the peak number of construction trips would occur during the treatment system installation phase. This phase would last approximately 8 weeks and generate an average of 8 daily worker trips, 2 vendor truck trips, and no haul truck trips. The excavated material would be hauled to a permitted landfill within Orange County (see discussion below in Section 3.19[d]).

Regional access to the site is provided via Interstate 5, approximately 2.5 miles northeast of the site, and SR-73, approximately 2 miles northeast of the site. Local access to the site is provided via La Paz Road and Crown Valley Parkway, both of which are City-designated truck routes and provide direct access to the regional highways (City of Laguna Niguel 2016). Once at the site, access is provided by a paved, gated road extending west from La Paz Road. Exact truck routes will be determined in consultation with the City and construction contractor; however, it is anticipated that truck travel will occur on these regional and locally

designated truck routes. Due to the nominal and temporary increase in construction traffic, any effect on the operations of roadways or the overall circulation system along these roads would be minimal.

The nearest bus stop to the site is provided near the intersection of La Paz Road and Crown Valley Parkway. The Salt Creek Class I (off-road dedicated multi-use path), which is also used as an access road for maintenance of the Sulphur Creek flood control channel, passes the RTP facility on the east, paralleling the Sulphur Creek channel and crossing beneath the RTP access road. Construction activities, construction equipment staging, and materials laydown is anticipated to occur within the developed RTP site and proposed parking area, with no additional off-site staging anticipated to be needed. No long-term lane closures would occur within public right-of-way, and because the multi-use path is situated below grade of the project's proposed infrastructure and parking area, there would be no impact by construction of the project. The transit, bicycle, and pedestrian facilities would remain open during construction, and the temporary and minimal increase in construction-related traffic would not interfere with existing public transit, bicycle, or pedestrian facilities. Impacts would be less than significant.

Therefore, the implementation of the proposed project would not conflict with a program, plan, ordinance, or policy related to the circulation system, including roadways, transit, bicycle, and pedestrian facilities. The project would not interfere with the City's ability to use transportation system management and demand management strategies; create an efficient public transportation system; develop an efficient bicycle, equestrian, and pedestrian circulation system; and develop a truck circulation system that minimizes negative truck-related impacts throughout the City. The project would result in less-than-significant impacts to the existing circulation system.

Operations

The project includes additional wastewater treatment infrastructure at the existing RTP and a new parking and laydown area. The implementation of the project would not result in new employees to the site or major changes to the existing site operations. The project is anticipated to generate three net new daily trips to the site associated with routine maintenance at the site. With no new employees and a minor increase in maintenance trips, the project would result in less-than-significant impacts to the existing circulation system.

The project would not include site improvements that would extend into the public right-of-way or interfere with the existing roadway network, public transit, bicycle, or pedestrian facilities, or impede the construction of new or the expansion of existing facilities in the future. Bicyclist and pedestrian safety would be maintained at existing levels in the area. The project would also not severely delay, impact, or reduce the service level of transit in the area. Therefore, the proposed project would not conflict with the circulation policies within the City's General Plan Circulation Element. 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. CEQA Guidelines Section 15064.3(b) focuses on VMT for determining the significance of transportation impacts. Consistent with the Governor's' Office of Planning and Research's Technical Advisory on Evaluating Transportation Impacts in CEQA (OPR 2018), the City developed Transportation Assessment Guidelines, which establish VMT screening criteria and thresholds for evaluating a project's

potential impact on VMT (City of Laguna Niguel 2020). As described below, the project is screened from conducting a project-specific VMT analysis, and impacts to VMT are presumed to be less than significant.

Per the City's guidelines, a project may be screened from conducting a project-level VMT analysis if the project would generate less than 500 vehicle trips per day. Per the City's Guidelines, projects that generate less than 500 vehicle trips per day are presumed to have a less-than-significant impact on VMT.

As shown in Table 3-2, the project would generate a maximum of nine daily trips during the 10-month construction period. Furthermore, once construction is completed, the construction-related traffic would cease, and traffic would return to pre-construction conditions. During project operations, the project would generate up to three net new daily trips. Therefore, the project would have a less-than-significant impact on VMT and would not conflict with or be inconsistent with CEQA Guidelines Sections 15064.3(b)(1) and 15064.3(b)(3).

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

Less than Significant. The project site is located in an established, developed area with direct access to designated local and regional truck routes. Transportation and haul permits would be required from the California Department of Transportation and the City for construction truck traffic. The project would not introduce uses (types of vehicles) that are incompatible with existing uses already served by the area's road system during either construction or operations. There would be no changes to the existing off-site circulation on City roads. Therefore, impacts associated with hazardous design features or incompatible land uses would be less than significant.

d) Would the project result in inadequate emergency access?

Less than Significant. The project site is located in an established, developed area with sufficient access for emergency service providers. Construction would occur on site and would not impede public access or roadway circulation. Access to the site would be maintained at all times.

There would be no changes to the existing off-site circulation on City roads during either construction or project operations. As such, the project would have a less-than-significant impact related to emergency access.

3.18 Tribal Cultural Resources

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XVIII. TRIBAL CULTURAL RESOURCES				
Would the project 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:				
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k), or	☐	☐	☒	☐
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in 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.	☐	☒	☐	☐

The evaluation of potential impacts on tribal cultural resources (TCRs) is based on the findings resulting from tribal consultation conducted by the District, as the lead agency, as well as the findings of Section 3.5 in this MND. Background research conducted to inform this analysis includes a California Historical Resources Information System database records search conducted at the SCCIC, a search of the NAHC SLF, a review of historical topographic maps and aerial photographs, a cultural resources pedestrian survey of the project site, and the results of formal tribal consultation completed by the District pursuant to California AB 52.

Native American Heritage Commission Sacred Lands File Search

Dudek requested an NAHC search of the SLF for the project site and a 1-mile radius on December 7, 2023. The SLF consists of a database of known Native American resources. These resources may not be included in the SCCIC database. The NAHC replied via email on January 8, 2024, stating that the SLF search was completed with positive results. Positive results indicate the presence of Native American cultural resources within 1 mile of the project site and not necessarily directly within the project site. Additionally, the NAHC provided a list of 19 California Native American tribal representatives that should be contacted for more information on potential tribal sensitivities regarding the currently proposed project.

Assembly Bill 52 Consultation Outreach

AB 52 of 2014 amended PRC Section 5097.94 and added PRC Sections 21073, 21074, 21080.3.1, 21080.3.2, 21082.3, 21083.09, 21084.2, and 21084.3. AB 52 established that TCRs must be considered under CEQA and also provided for additional Native American consultation requirements for the lead agency. PRC Section 21074 describes a TCR as a site, feature, place, cultural landscape, sacred place, or object that is considered of cultural value to a California Native American tribe. A TCR fulfills one of the following requirements:

- Is on the California Register of Historical Resources or a local historic register
- Is eligible for the California Register of Historical Resources or a local historic register
- Is 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 PRC Section 5024.1

AB 52 formalizes the lead agency–tribal consultation process, requiring the lead agency to initiate consultation with California Native American groups that are traditionally and culturally affiliated with the project site, including tribes that may not be federally recognized. Lead agencies are required to begin consultation prior to the release of a negative declaration, MND, or environmental impact report by contacting those tribal groups who have previously provided formal written request for notification of projects under the agency's jurisdiction.

Section 1(b)(9) of AB 52 establishes that "a substantial adverse change to a tribal cultural resource has a significant effect on the environment." Effects on TCRs should be considered under CEQA. Section 6 of AB 52 adds Section 21080.3.2 to the PRC, which states that parties may propose mitigation measures "capable of avoiding or substantially lessening potential significant impacts to a tribal cultural resource or alternatives that would avoid significant impacts to a tribal cultural resource." Further, if a California Native American tribe requests consultation regarding project alternatives, mitigation measures, or significant effects to TCRs, the consultation shall include those topics (PRC Section 21080.3.2[a]). Finally, the environmental document on which the tribal consultation is focused, as well as the mitigation monitoring and reporting program (where applicable), developed in consideration of information provided by tribes during the formal consultation process, shall include any mitigation measures that are adopted (PRC Section 21082.3[a]).

The project is subject to compliance with AB 52 (PRC Section 21074), which requires consideration of impacts on TCRs as part of the CEQA process and that the lead agency notify California Native American tribal representatives (that have requested notification) who are traditionally or culturally affiliated with the geographic area of the proposed project. All NAHC-listed California Native American tribal representatives identified on the NAHC contact list were sent letters from the District on March 27, 2024, via email and March 28, 2024, via U.S. Postal Service mailing. The notification letters contained a project description, a project location map, an outline of AB 52 timing, an invitation to consult, and contact information for the appropriate lead agency representative. AB 52 allows tribes 30 days after receiving notification to request consultation. If a response is not received within the allotted 30 days, it can be assumed that consultation is declined. The 30-day tribal consultation request window pursuant to AB 52 closed on April 28, 2024. Table 3-14 summarizes the AB 52 consultation efforts for the project thus far.

Table 3-14. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Consultation Record
Christina Swindall Martinez, Secretary Gabrieleño Band of Mission Indians–Kizh Nation (Kizh Nation)	No response has been received to date.
Andrew Salas, Chairperson Gabrieleño Band of Mission Indians–Kizh Nation (Kizh Nation)	**April 3, 2024** Email from Mr. Salas to the Moulton Niguel Water District (District) acknowledging receipt of AB 52 notification letter for the project and requesting consultation. Mr. Salas's email also stated that the proposed project is within Kizh Nation's Ancestral Tribal Territory. **May 10, 2024** Email from Mr. Salas to the District acknowledging receipt of AB 52 notification letter for the project and requesting consultation. Mr. Salas's email also stated that the proposed project is within Kizh Nation's Ancestral Tribal Territory. **August 23, 2024** Email from the District to Mr. Salas providing the cultural resources technical report as well as the District's proposed tribal cultural resources mitigation measure for the project. **August 26 and 27, 2024** Several follow-up emails between the District and Mr. Salas that involved scheduling a virtual consultation meeting for August 27, 2024, as well as an email from Mr. Salas with proposed revisions to the District's tribal cultural resources mitigation measure for the project. Due to technical issues, the consultation meeting was rescheduled to September 17, 2024. **August 29, 2024** Email from the District to Mr. Salas providing the revised tribal cultural resources mitigation measure for the project, which includes all revisions proposed by Mr. Salas via email on August 27, 2024.
Anthony Morales, Chairperson Gabrieleno/Tongva San Gabriel Band of Mission Indians	No response has been received to date.
Sandonne Goad, Chairperson Gabrielino/Tongva Nation	No response has been received to date.
Robert Dorame, Chairperson Gabrielino Tongva Indians of California Tribal Council	No response has been received to date.
Christina Conley, Cultural Resource Administrator Gabrielino Tongva Indians of California Tribal Council	**March 28, 2024** Email from Ms. Conley to the District acknowledging receipt of AB 52 notification letter for the project and requesting cultural reporting. **April 1, 2024** Email from the District to Ms. Conley acknowledging receipt of Ms. Conley's request for cultural reporting.

Table 3-14. Assembly Bill 52 Native American Tribal Outreach Results

Native American Tribal Representatives	Consultation Record
	August 23, 2024 Email from the District to Ms. Conley providing the cultural resources technical report as well as the District's proposed tribal cultural resources mitigation measure for the project. To date, no additional record of communication has been received by the District from Ms. Conley or the Gabrielino Tongva Indians of California Tribal Council.
Sam Dunlap, Cultural Resource Director Gabrielino/Tongva Tribe	No response has been received to date.
Charles Alvarez, Chairperson Gabrielino/Tongva Tribe	No response has been received to date.
Sonia Johnston, Chairperson Juaneño Band of Mission Indians	No response has been received to date.
Joyce Perry, Cultural Resource Director, THPO Juaneño Band of Mission Indians Acjachemen Nation – Belardes	No response has been received to date.
Heidi Lucero, Chairperson, THPO Juaneño Band of Mission Indians Acjachemen Nation 84A	No response has been received to date.
Norma Contreras, Chairperson La Jolla Band of Luiseño Indians	No response has been received to date.
Shasta Gaughen, THPO Pala Band of Mission Indians	No response has been received to date.
Alexis Wallick, Assistant THPO Pala Band of Mission Indians	No response has been received to date.
Christopher Nejo, Legal Analyst/Researcher Pala Band of Mission Indians	No response has been received to date.
Temet Aguilar, Chairperson Pauma Band of Luiseño Indians	No response has been received to date.
Lovina Redner, Tribal Chair Santa Rosa Band of Cahuilla Indians	No response has been received to date.
Joseph Ontiveros, Tribal Historic Preservation Officer Soboba Band of Luiseño Indians	No response has been received to date.
Jessica Valdez, Cultural Resource Specialist Soboba Band of Luiseño Indians	No response has been received to date.

Would the project 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:

a) ***Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?***

Less than Significant**.** As discussed in Section 3.5 of this MND, while the NAHC does have records of Native American cultural resources in the larger 1-mile search radius, no previously recorded cultural resources of Native American origin or TCRs listed on the California Register of Historical Resources or local register were identified within the project site as a result of the SCCIC records search, review of historical topographic maps and aerial photographs, or pedestrian survey or as a result of information provided from consulting tribes. Therefore, the project would not adversely affect TCRs that are listed or eligible for listing in the state or local register. Impacts would be less than significant.

b) ***A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in 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. An appropriate approach to potential impacts to TCRs is developed in response to the identified presence of a TCR by California Native American tribes through the process of consultation. The AB 52 process requires consideration of impacts to TCRs as part of the CEQA process and requires lead agencies notify and, if requested, consult with California Native American tribal representatives who are traditionally or culturally affiliated with the geographic area of the project. As a result of the District's outreach efforts, two tribal organizations responded expressing interest in the project: the Gabrielino Tongva Indians of California Tribal Council and the Gabrieleño Band of Mission Indians–Kizh Nation (Kizh Nation).

The Gabrielino Tongva Indians of California Tribal Council responded to project notification with a request for cultural reporting. Cultural reporting was provided on August 23, 2024. The Gabrielino Tongva Indians of California Tribal Council did not respond to subsequent follow-up attempts by the District to solicit comments on the project.

The Kizh Nation responded to project notification with a statement that the project is within their Ancestral Tribal Territory and a request to consult further. Through email correspondence, Mr. Salas provided revisions to the District's proposed TCR mitigation measure and scheduled a virtual consultation meeting for September 17, 2024.

Through consultation efforts conducted by the District to date, no additional information has been provided to support the presence of specific, geographically defined TCRs that could be affected by project-related construction or operation. No known cultural resources of Native American origin or association have been identified within areas that would be affected by the project. While the District acknowledges that the landscape surrounding the project was traditionally used by indigenous peoples, no substantial evidence

was presented demonstrating that the project has the potential for affecting known TCRs, as defined by PRC Section 21074(a).

However, in acknowledgement of information provided through consultation and in an effort to protect TCRs that may be inadvertently uncovered during project earthwork, the District will implement **MM-TRI-1**, as outlined below, to ensure proper treatment of unknown TCRs in the event of an inadvertent discovery.

MM-TRI-1 Native American Monitoring. A Native American monitor that is culturally affiliated with the project site shall be retained during initial ground-disturbing activities for the project and all ground-disturbing activities occurring in native soil. If disturbed sediments (e.g., fill) or other sediments and formations are identified that do not have the potential to contain Native American cultural resources, then monitoring may be reduced or terminated.

3.19 Utilities and Service Systems

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XIX. UTILITIES AND SERVICE SYSTEMS – Would the project:				
a) Require or result in the relocation or construction of new or expanded water, waste water treatment or storm water drainage, electric power, natural gas, or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?	☐	☐	☒	☐
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?	☐	☐	☐	☒
c) Result in a determination by the waste water treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☐	☐	☒
d) Generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?	☐	☐	☒	☐
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	☐	☐	☒	☐

a) Would the project require or result in the relocation or construction of new or expanded water, waste water 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. The proposed project would improve an existing public recycled water system, the environmental impacts of which are evaluated throughout this MND. The treatment infrastructure would be housed in up to one multilevel and two single-level pre-engineered metal buildings, which would require new utility connections, including plant water, fire water, power, and communications. These utilities would connect the proposed building to the AWT system in underground piping. Drainage improvements would also be constructed to control stormwater runoff in the proposed construction area.

The proposed treatment infrastructure would remain tied into the local electrical and telecommunication utilities in order to maintain facility functions. The impacts to the electrical and telecommunication utility system would be minimal and would not require significant relocation of or creation of new utilities, excluding changes on site. Utility installation would consist of trenching to the depth of pipe placement. Trenching results in temporary stockpiling of soil along the length of the trench, pending backfilling, which could result in potential short-term soil erosion. Similarly, construction of new drainage improvements would result in temporary soil disturbance. As discussed in Section 3.7, Geology and Soils, stockpiling of soil and other ground disturbance would be completed in accordance with the Construction General Permit SWPPP, which describes BMPs the discharger would use to protect stormwater runoff from sediment and erosion. As such, new utility installations would not cause significant environmental effects. Impacts would be less than significant.

b) Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry, and multiple dry years?

No Impact. No new water supplies would be required as part of the project, and no impacts would occur.

c) Would the project result in a determination by the waste water 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. Construction and operation of the proposed treatment infrastructure would further treat recycled water produced by the facility and reduce its TDS content. As such, construction and operation of the system would increase the capacity of the wastewater treatment facility with respect to acceptable salinity concentrations in recycled water, resulting in no impacts, and would actually amount to a beneficial impact.

d) Would the project generate solid waste in excess of state or local standards, or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less than Significant. Grading of the building pad for the proposed treatment system and pipe trenching is anticipated to be balanced, requiring no export haul trips. Construction of the project would result in the generation of solid waste such as scrap lumber, concrete, residual wastes, packing materials, and plastics that would need to be hauled off site. The California Green Building Code requires that 65% of construction and demolition debris be diverted from landfills. Any hazardous wastes that are generated

during construction activities, such as used motor oil, empty paint cans, or empty solvent containers, would be managed and disposed of in compliance with all applicable federal, state, and local laws. The remaining 35% of construction material that is not required to be recycled would either be disposed of or voluntarily recycled at a solid waste facility with available capacity. With regard to operational solid waste generation, the project is anticipated to represent a slight increase in the RTP's solid waste generation due to treatment byproduct.

Regional municipal waste landfills in Orange County include the Prima Deshecha Landfill, located in San Juan Capistrano approximately 6 miles southeast of the site; the Frank R. Bowerman Landfill, located in Irvine approximately 13 miles north of the site; and the Olinda Alpha Landfill, located in Brea approximately 25 miles northwest of the site. The Olinda Alpha Landfill would accept soil (inert waste) exported from the project site during grading (County of Orange 2024). In addition, the Olinda Alpha Landfill would accept construction and operational solid waste. This landfill has a maximum permitted capacity of 148,800,000 cubic yards, a remaining capacity of 17,500,000 cubic yards, and a cease operation date of December 31, 2036 (CalRecycle 2024a). The Prima Deshecha Landfill has a maximum permitted capacity of 172,100,000 cubic yards, a remaining capacity of 128,800,000 cubic yards, and a cease operation date of December 31, 2102 (CalRecycle 2024b). The Frank R. Bowerman Landfill has a maximum permitted capacity of 266,000,000 cubic yards, a remaining capacity of 205,000,000 cubic yards, and a cease operation date of December 31, 2053 (CalRecycle 2024c).

Based on the available capacity of these Orange County landfills, it is anticipated that ample landfill capacity is available to dispose of project construction waste. In addition, the net operational solid waste that is anticipated to be produced by the project would equate to an extremely small percentage of the combined available capacity of these three landfills, through the estimated closure dates, per year. As such, the project's solid waste generation would be minimal to negligible relative to available landfill capacity and relative to existing and future solid waste generation in the region.

The City includes construction and demolition management requirements in all of its construction project contracts. The City requires contractors to report on the project's waste management status, including meeting the diversion rate requirements before final approval of the project. The proposed project would be subject to the diversion rate of 65%, as the City requires such diversion for all newly constructed building and demolition projects that require a permit (City of Laguna Niguel 2024). Based on available landfill space and compliance with City regulations, the project would not generate construction 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. Impacts would be less than significant.

e) Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less than Significant. As described in Section 3.19(d), the Prima Deshecha, Frank R. Bowerman, and Olinda Alpha Landfills are the closest landfills to the project site. These facilities are regulated under federal, state, and local laws. Additionally, the City is required to comply with the solid waste reduction and diversion requirements set forth in the California Integrated Waste Management Act of 1989 (AB 939 and AB 341), the California Solid Waste Reuse and Recycling Act of 1991 (AB 2176), and the California Construction and Demolition Waste Reduction Act (SB 1374). Project solid waste disposal would also be completed in compliance with the California's 2022 Green Building Standards Code, which sets forth

recycling requirements for construction projects in the City. The provisions of the Green Building Standards Code are more stringent than those of the Construction and Demolition Debris Recycling and Reuse Ordinance that was adopted in 2005. For residential and non-residential construction projects, 65% of the debris generated (by weight) must be recycled. In addition, solid waste disposal would comply with City Construction and Demolition Waste Reduction and Recycling Requirements. As a result of project compliance with federal, state, and local management and reduction statutes and regulations related to solid waste, impacts would be less than significant.

3.20 Wildfire

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XX. WILDFIRE – If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☒	☐
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, emergency water sources, power lines, or other utilities) that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☒	☐
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes?	☐	☐	☒	☐

a) Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less than Significant. The project is located in a developed area of Orange County mostly characterized by residential development. Emergency response within the Orange County Operational Area is managed by Orange County's Emergency Operations Center, which coordinates disaster response and recovery for the operational area, including all political subdivisions of Orange County, and communicates resource requirements and availability with the State Regional Operations Center. The Emergency Operations Center has a number of emergency response plans in place should an emergency or disaster occur. The

construction and operation of the additional wastewater treatment infrastructure that would occur under the proposed project would all be located at the existing RTP, which would not interfere with an adopted emergency response plan or evacuation plan, nor would it substantially impede public access or roadway circulation based on the limited scale of the project's construction traffic. Therefore, construction and operation of the proposed project would not interfere with an adopted emergency response plan or evacuation plan, nor would it substantially impede public access or roadway circulation. Therefore, the proposed project would have less-than-significant impacts.

b) Due to slope, prevailing winds, and other factors, would the project exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

Less than Significant. The project site is not within a moderate, high, or very high fire hazard severity zone. The nearest fire hazard severity zone is approximately 3,300 feet west of the proposed project, and this area's designation is driven by the fire hazard presented by Aliso Canyon, which is 5,000 feet northwest of the proposed project. There is no continuous vegetation from this area to the proposed project that could support the spread of surface fire, and given the vegetation within the canyon and that the most hazardous conditions, dry, Santa Ana winds, would push a fire within Aliso Canyon away from the proposed project, the spread of embers to the proposed project site is unlikely. While the proposed project would be situated adjacent to Laguna Niguel Regional Park, the park is well maintained and largely consists of low-load herbaceous fuels with ideal access and water supply. Consequently, in the case of a wildfire, project implementation would not expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire. Impacts would be less than significant.

c) Would the project 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. The proposed project would involve installation and maintenance of infrastructure adjacent to vegetated areas. However, these structures would consist of pre-engineered metal buildings, piping, and paved areas. This infrastructure associated with the proposed project is anticipated to largely be ignition-resistant or noncombustible. Thus, they would represent a reduction in fire hazard relative to the existing state. Further, paving the parking lot and laydown area increases fire apparatus access to the vegetated areas around the proposed project. Additionally, the purpose of the proposed project, to improve recycled water quality for use in irrigation, would allow irrigation of landscaped areas, which would reduce fire hazard in those areas through maintenance of elevated moisture levels. Any impacts that the infrastructure associated with the proposed project could have on the environment are analyzed throughout this document. Therefore, impacts associated with the installation or maintenance of associated infrastructure that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment would be less than significant.

d) Would the project 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. As discussed in Section 3.10, a SWPPP would be prepared as part of project, which would include BMPs to protect against substantial soil erosion. Additionally, the project would

include drainage control features for any newly paved areas, such as the parking lot and laydown area, which would capture stormwater runoff, which would then be treated on site and would comply with MS4 permit requirements and the Orange County Hydrology Manual. Post-fire erosion concerns are a result of loss of vegetation, including combustion or failure of root structures. Given that the proposed project would include newly paved surfaces, these areas would retain their erosion reduction characteristics post-fire should one occur. Thus, the proposed project would be anticipated to have less post-fire erosion relative to the existing state.

As noted in Section 3.7, while the City General Plan Seismic/Public Safety Element (City of Laguna Niguel 1992) indicated the project site is not located within a potential landslide area, more recent geologic mapping by the California Geological Survey (CGS 2024b), indicated that all of or portions of the project site are located within a potential landslide zone. However, final slope gradients at both sites would be designed and constructed in accordance with the 2022 CBC and the recommendations of the project geotechnical report. Grading and construction in accordance with slope stability recommendations in the geotechnical report would prevent long-term slope instability during project operations and revegetation and paving would remedy any erosion concerns during the operation of the project. Therefore, the project would not expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope instability, or drainage changes, and impacts would be less than significant.

3.21 Mandatory Findings of Significance

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
XXI. MANDATORY FINDINGS OF SIGNIFICANCE				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b) Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)	☐	☐	☒	☐

	Potentially Significant Impact	Less Than Significant Impact With Mitigation Incorporated	Less Than Significant Impact	No Impact
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☐	☒	☐

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**.** Potential impacts related to sensitive and special-status habitat, wildlife species, and plant species are discussed in Section 3.4. As discussed in Section 3.4, all potentially significant impacts to biological resources would be reduced to a level below significance with incorporation of mitigation measures. The proposed project would not substantially degrade the quality of the environment or impact fish or wildlife species or plant communities. As discussed in Section 3.5, potential impacts to cultural resources would be reduced to a level below significance with incorporation of mitigation measures. In addition, as discussed in Section 3.18, the proposed project would not result in impacts to TCRs. The proposed project would not eliminate important examples of the major periods of California history or prehistory. Overall, impacts would be less than significant with incorporation of mitigation measures.

b) ***Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)***

Less than Significant. As indicated in the analysis presented throughout Chapter 3 of this MND, the proposed projects would not result in significant impacts in any issue area that cannot be reduced by mitigation. Mitigation measures would reduce all impacts to below a level of significance. The project's impacts would also not combine with those of other future projects to create significant cumulative impacts. The project is located near two ongoing public projects, both of which are associated with the instability of the slope beneath and west of La Paz Road, north of the project site. At the time of this MND's publication, the District was working on the La Paz Road Soils Stabilization Project. This project involves excavating earth from an area between La Paz Road and Sulphur Creek, installing a series of hydraugers and drains, installing ground anchors, and restoring the slope to the pre-existing grade. Construction is anticipated to continue until December 2024, so it will not overlap with construction of the project addressed in this MND. The City is planning a multiphase project to stabilize La Paz Road north of the project site. The current phase of the City's project, referred to as the La Paz Road Long-Term Phase II Project, entailed removing the center median island and reconfiguring the two northbound (eastern) travel lanes to allow two-way

vehicle travel, installing k-rail separation between the northbound lanes and the closed southbound lanes. Access to the RTP driveway is maintained for northbound traffic via a gap in the k-rail separators. This project was recently completed, and the road was reopened to northbound traffic. The City intends to commence engineering planning and design of a long-term stabilization of the roadway at some point in the future, but a schedule has not been developed (Hohnbaum 2024). Construction of this project will not overlap with the District project. The City may implement minor roadway repaving projects in the vicinity of the District project, and the District and the City will continue to coordinate regarding construction traffic and road access to avoid conflicts. Because there will be no overlap in construction phases between large concurrent projects, there will be no cumulative impacts, and this impact is considered 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. The potential for adverse direct or indirect impacts to human beings was considered throughout Chapter 3 of this MND. Based on this evaluation, there is no substantial evidence that construction or operation of the project would result in a substantial adverse effect on human beings. Impacts would be less than significant.

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4.2 List of Preparers

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Kristin Arakawa – GIS Specialist
Kathryn Landoe – Technical Editor
Alexander Quejado – Technical Editor
Summer Forsman – Publications Specialist

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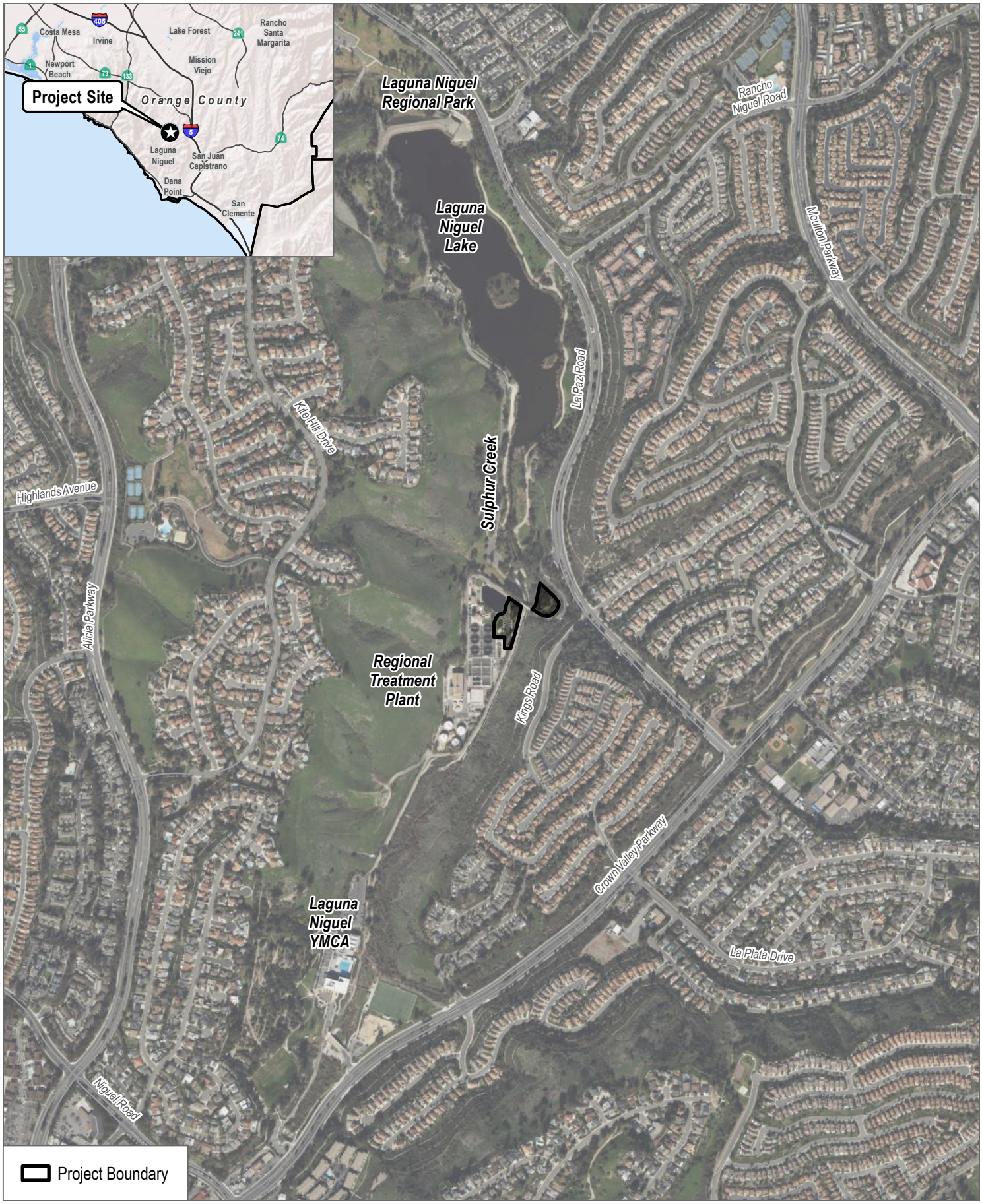


SOURCE: Bing Imagery (Accessed 2024); Open Street Map

DUDEK

0 500 1,000 Feet

FIGURE 1

Regional Location

Moulton Niguel Water District Salinity Management System Project

SOURCE: Bing Imagery (Accessed 2024); Open Street Map

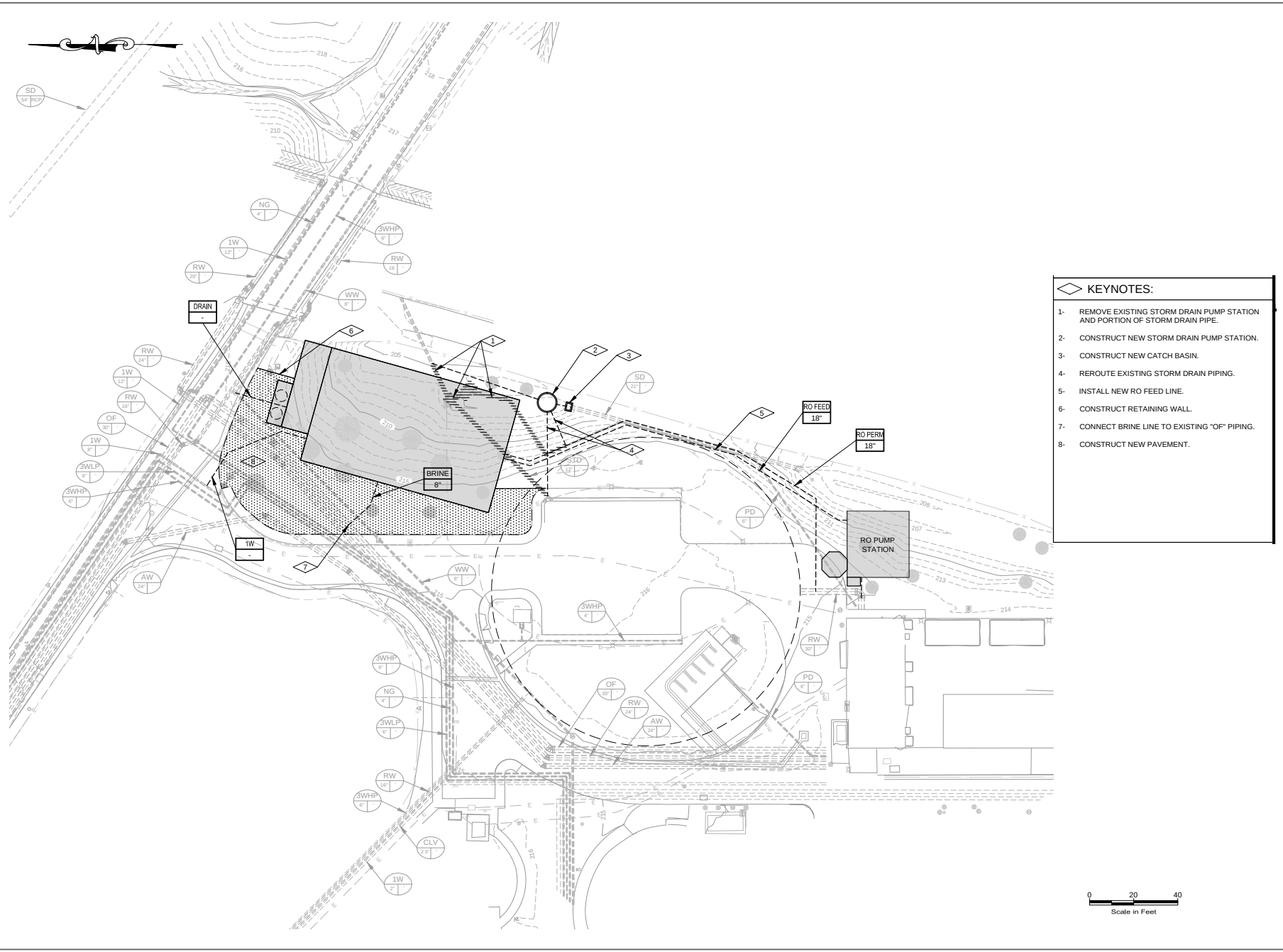
DUDEK

0 55 110 Feet

FIGURE 2

Project Site

Moulton Niguel Water District Salinity Management System Project



SOURCE: Aqua Engineering, 2023

DUDEK

FIGURE 3

SMS Treatment Facility Preliminary Site Plan

Moulton Niguel Water District Salinity Management System Project

View 1 Image

View 1 Simulation 3D

FIGURE 4

Visual Simulation 1, Kings Road Sidewalk

Moulton Niguel Water District Salinity Management System Project

DUDEK

0 405 810 Feet

View 2 Image

View 2 Simulation 3D

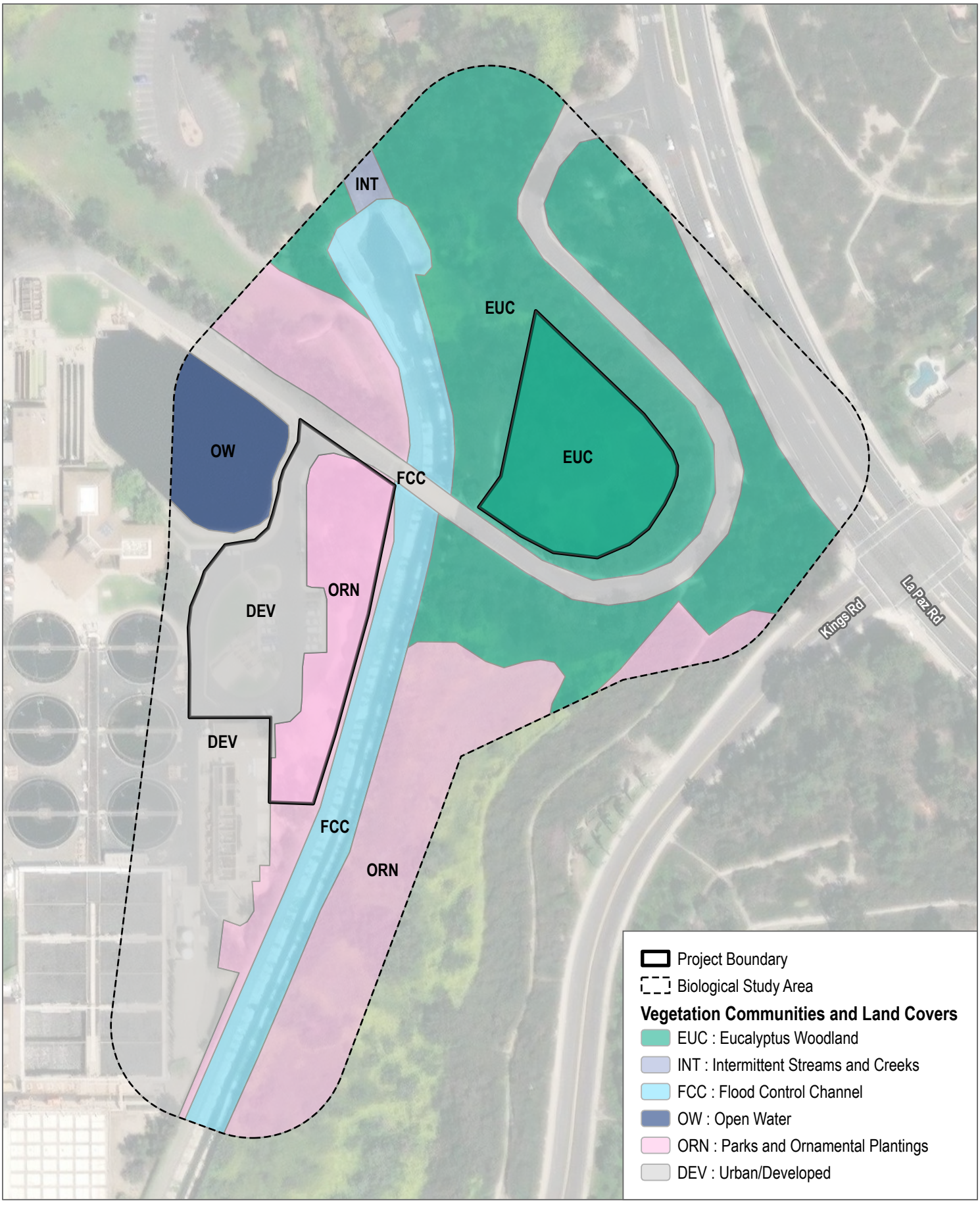
FIGURE 5

Visual Simulation 2, Kings Road Sidewalk

Moulton Niguel Water District Salinity Management System Project

DUDEK

0 405 810 Feet



SOURCE: Vivid Premium 9/16/2022

DUDEK

0 65 130 Feet

FIGURE 6

Biological Resources

Moulton Niguel Water District Salinity Management System Project

SOURCE: USGS National Map, Central/Coastal Orange County NCCP/HCP

DUDEK

0 500 1,000 Feet

FIGURE 7

Central/Coast OC NCCP/HCP

Moulton Niguel Water District Salinity Management System Project

SOURCE: Esri 2023; Open Street Map 2023

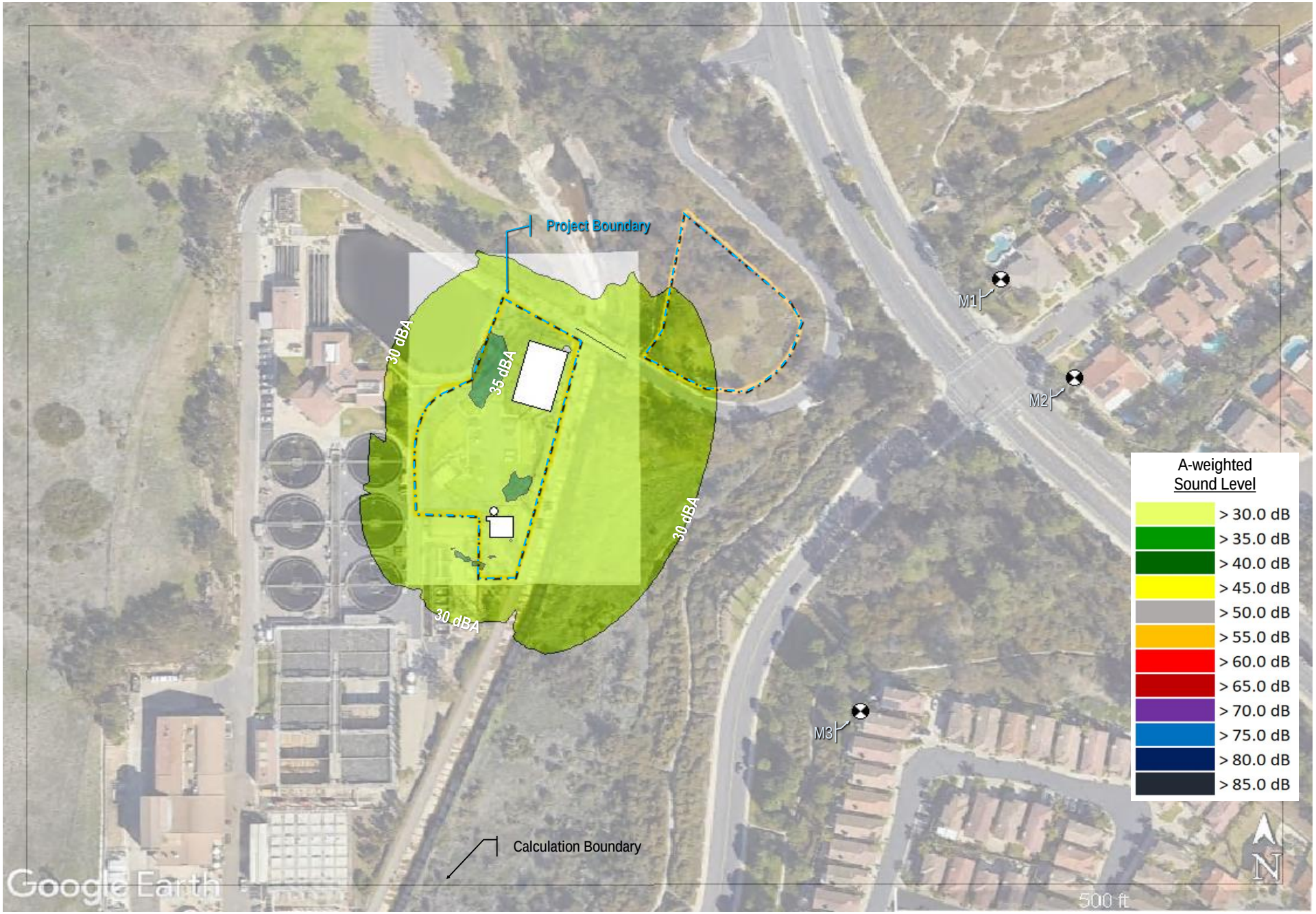
DUDEK

0 80 160 Feet

FIGURE 8

Noise Measurement Locations

Moulton Niguel Water District Salinity Management System Project



SOURCES: Google 2024; SMS Project 2024; Dudek 2024

FIGURE 9

DUDEK

0 99 198 Feet

Predicted Stationary Source Operation Noise from Proposed Project