
Negative Declaration

Westside Pump Station Rehabilitation Project Rossmoor, California

Prepared for
Orange County Sanitation District

Prepared by



3 Hutton Centre Drive
Suite 200
Santa Ana, CA 92707

March 2005

Negative Declaration

Project Proponent: Orange County Sanitation District (OCSD)
10844 Ellis Avenue
Fountain Valley, CA 92708

Project Description: The proposed Westside Pump Station Rehabilitation Project (Project) includes site and access improvements, modification to the existing building, replacement of equipment, instrumentation and controls, ventilation and odor control, and installation of an emergency power generator. The proposed Project would enhance the reliability of the Westside Pump Station.

Project Location: Westside Pump Station
3112 Yellowtail Drive
Los Alamitos, CA 90720

Finding: Pursuant to the provisions of the California Environmental Quality Act (CEQA), OCSD has determined that the proposed Project will not have a significant effect on the environment. Following an Initial Study and assessment of possible adverse impacts, the proposed Project was determined not to have a significant impact on the environment. Therefore, OCSD has prepared a Negative Declaration in accordance with the provisions of CEQA.

The Initial Study is available at www.ocsd.com. Copies are also available for viewing at:

- Orange County Sanitation District, Administrative Office Building, Engineering Department, 10844 Ellis Avenue, Fountain Valley, CA 92708
- Los Alamitos Public Library, 12700 Montecito Road, Seal Beach, CA 90740
- Seal Beach Public Library, 707 Electric Avenue, Seal Beach, CA 90740

Date: _____

Signature: _____
Jim Herberg

Staff: _____

Date Filed with County Clerk:

Initial Study

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Acronyms

AQMP	Air Quality Management Plan
BMPs	best management practices
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CO	carbon monoxide
EIR	Environmental Impact Report
HI	hazard index
HRA	health risk assessment
LOS	level of service
mgd	million gallons per day
MICR	maximum individual cancer risk
NCCP	Natural Community Conservation Plan
ND	Negative Declaration
NO _x	nitrogen oxides
OCSD	Orange County Sanitation District
PM	particulate matter
PM ₁₀	particulate matter less than 10-microns
Project	Westside Pump Station Rehabilitation Project
ROC	reactive organic compounds
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SO _x	sulfur oxides

1.0 Introduction

1.1 Background

This Initial Study has been prepared in accordance with the California Environmental Quality Act (CEQA), as amended January 1, 2005 (State of California Public Resources Code sections 21000 to 21178) and the Guidelines for CEQA, as amended September 7, 2004 (State of California Code of Regulations Title 14, Chapter 3 sections 15000 to 15387). The Initial Study examines the direct, indirect, growth-inducing, irreversible, short-term and long-term and cumulative environmental effects associated with the construction and operation of the proposed Westside Pump Station Rehabilitation Project (Project).

1.2 Purpose

Pursuant to Section 15063(a) of CEQA Guidelines, the Orange County Sanitation District (OCSD), acting in the capacity of Lead Agency, is required to undertake the preparation of an Initial Study to determine if the proposed action will have a significant effect on the environment. The purposes of this Initial Study are to: (1) identify potential environmental impacts, (2) provide the Lead Agency with information to use as the basis for deciding whether to prepare an Environmental Impact Report (EIR) or Negative Declaration (ND), (3) enable the Lead Agency to modify the proposed Project (through mitigation of adverse impacts), (4) facilitate assessment of potential environmental impacts early in the design of the proposed Project, and (5) provide documentation for the potential finding that the proposed Project will not have a significant effect on the environment or can be mitigated to a level of insignificance. This Initial Study is an informational document providing an environmental basis for subsequent discretionary actions that may be required from other Responsible Agencies.

1.3 Statutory Requirements and Authority

The State of California CEQA Guidelines Section 15063 identify specific disclosure requirements for inclusion in an Initial Study. Pursuant to those requirements, an Initial Study shall include: (1) a description of the proposed Project, including the location of the Project site; (2) an identification of the environmental setting; (3) an identification of environmental effects by use of a checklist, matrix, or other method, provided that entries on a checklist or other form are briefly explained to indicate that there is some evidence to support the entries; (4) a discussion of ways to mitigate significant effects identified, if any; (5) an examination of whether the proposed Project is compatible with existing zoning, plans, and other applicable land-use controls; and (6) the name of the person or persons who prepared or participated in the preparation of the Initial Study.

1.4 Permits and Approvals

Public agencies may use this Initial Study as the basis for their decision to issue approvals and/or permits that may be applicable to the proposed Project. Table 1-1 provides a list of those entitlements and permits that may be required for the proposed Project.

TABLE 1-1
Project Permits and Approvals

Agency	Permit or Approval
Federal	
Not Applicable	Not Applicable
State	
South Coast Air Quality Management District	Permit to Construct/Operate – Emergency Stationary Internal Combustion Engine
Local	
County of Orange	Building Permit

1.5 Agency Consultation and Coordination

The agencies and organizations listed in Table 1-1 may require OCSD to obtain approvals for the proposed Project. Although a number of Responsible and Trustee Agencies have been identified, discussions with those agencies will be required to determine the specific nature of any future permits or approvals that may be required from those agencies. Their inclusion in this document is intended to acknowledge the potential role of these agencies and ensure their notification and subsequent inclusion of any comments from them. In addition, reference to these agencies is intended to provide them and the general public with an environmental basis under CEQA to facilitate the dissemination of information deemed necessary to the discretionary approvals process and the approval or conditional approval of any aspect of the proposed Project within their jurisdiction.

2.0 Project Description

2.1 Project Background and Location

The Orange County Sanitation District (OCSD) maintains a collection system of sewers and pump stations. The collection system conveys wastewater from OCSD's member cities and other local agencies to treatment facilities located in the cities of Fountain Valley and Huntington Beach.

The existing Westside Pump Station was constructed in 1959 at 3112 Yellowtail Drive, within a residential community in Rossmoor in unincorporated Orange County. The pump station is bordered by two single-family homes, an unlined drainage ditch, and Yellowtail Drive. Bordering land uses are separated from the pump station by a 6-foot-high concrete wall, landscaping, and a gated entrance. Figure 1 depicts OCSD's service area and the location of the Westside Pump Station. Figure 2 show the existing pump station and its immediate surroundings.

The Westside Pump Station is currently equipped with four vertical-dry pit, non-clog sewage pumps that receive flows from the Los Alamitos Trunk Sewer, Westside Relief Interceptor, and the local sewer system. Wastewater from the Westside Pump Station is discharged into the Seal Beach Interceptor via a 20-inch force main. A general assessment of the Westside Pump Station demonstrated that it needs rehabilitation and upgrade, including installation of an emergency power generator. The proposed Project would enhance reliability of the Westside Pump Station.

2.2 Project Elements

The proposed Project includes site and access improvements, modification to the existing building, replacement of equipment, instrumentation and controls, ventilation and odor control, and installation of a diesel-fueled emergency power generator. Specifically, this includes the replacement of four pumps, and separation of mechanical and electrical functions of the pump station into above- and below-ground control rooms. The new pumps will increase the overall pumping capacity from 12.8 million gallons per day (mgd) to 14.4 mgd, which is consistent with the long-term needs of OCSD to accommodate current and planned future wastewater demand. Additionally, an emergency power generator will be installed on-site to increase pump station reliability. Structural components of the pump station will be in conformance with the Uniform Building Code. Additional improvements will include repair of the existing concrete block fence, access doors, noise insulation, ventilation system modifications, odor control, and roof repairs.

2.3 Project Construction

All Project construction will take place within the Project area. Access to the Project area will be along Yellowtail Drive in unincorporated Orange County.

2.3.1 Project Schedule

Implementation of the proposed Project is anticipated to commence in November 2006, and would take approximately 18 months. Construction, including excavation and the installation of structural components, would occur within the first six months of Project implementation. Construction would occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday, which complies with the County of Orange construction ordinance hours. No construction activities would occur outside these hours or on Sundays or federal holidays unless a temporary waiver is granted by an authorized representative.

2.3.2 Traffic Control

Construction activities planned for the rehabilitation of the Westside Pump Station are not anticipated to require traffic control. Vehicles entering and exiting the proposed Project site during construction would use Yellowtail Drive in Unincorporated Orange County. A small increase in traffic at the proposed Project area may result during construction and some parking along Yellowtail Drive may be temporarily blocked-off to accommodate construction trucks and equipment. This would not affect the existing traffic load or change the capacity of the street system, and traffic controls during construction would not be necessary.

2.3.3 Excavation

The proposed Project would include approximately 500 cubic yards of excavation for the construction of an external stairwell and pump station access shaft. Excavation would be limited to the existing facility site and areas directly adjacent to the facility site. Excavation spoil would be replaced as fill material. Excess excavation spoil and all solid waste produced during construction activities would be disposed of at a properly permitted facility in accordance with federal and state laws.

2.3.4 Construction Equipment

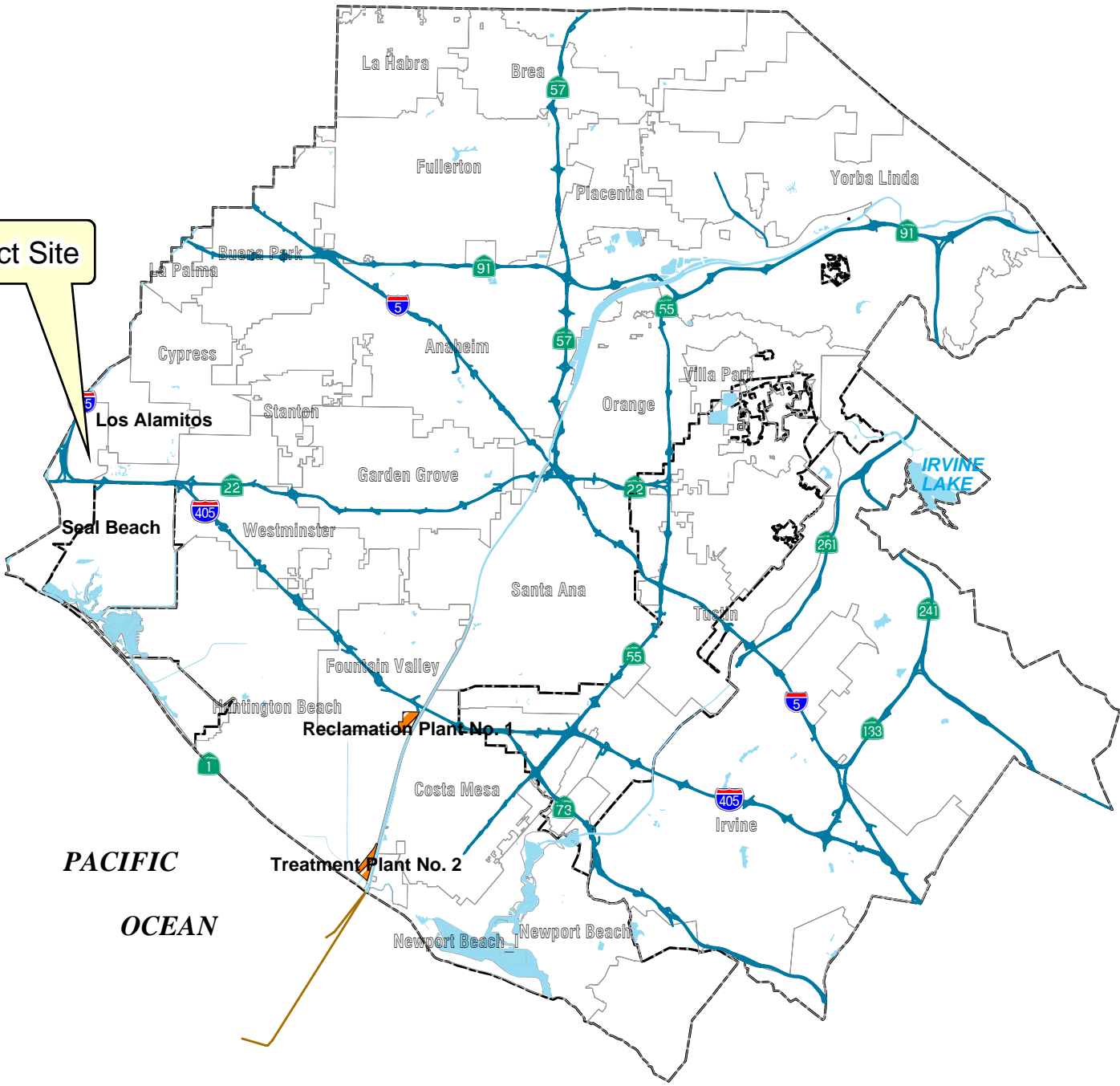
The estimated number and types of equipment, operating hours, and crews are listed in Table 2-1.

TABLE 2-1
Construction Equipment and Working Days

Activity	Equipment	Hours of Operation/Day	Number of Working Days	Workers (Total)
Facility Installation	Excavator	8	5	5
	Front-end loader	8	5	5
	Dump truck	8	2	1
	Concrete truck	8	3	2
	Delivery truck	2	10	2
Management Activities	1 Contractor pickup trucks	8	360 ¹	1
	2 OCSD pickup trucks	4	360 ¹	2
Contractor staff	4 pickup trucks	8	360 ¹	4

¹The number of expected working days for the length of the proposed Project, which is approximately 18 months.

Project Site



PACIFIC OCEAN

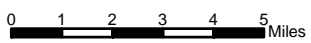


Figure 1



WESTSIDE PUMP STATION REHABILITATION PROJECT

OCSD Engineering Department
Geographic Information Systems

Sources:
OCSD Engineering Data
October, 2004



Existing Pump Station Building
Looking at enclosed pump station from within contained project site



Existing Front Gate and Road Access to Pump Station
Looking at existing front gate that provides access from Yellowtail Drive to enclosed pump station and contained project site

FIGURE 2
Existing Pump Station and Surroundings
West Side Pump Station Rehabilitation Project
Orange County Sanitation District

3.0 Environmental Checklist Form

1. **Project Title:** Westside Pump Station Rehabilitation Project

2. **Lead Agency Name and Address:**

Orange County Sanitation District (OCSD)
10844 Ellis Avenue
Fountain Valley, CA 92708

3. **Contact Person and Phone Number:**

Jim Herberg/Engineering Manager: (714) 593-7310

4. **Project Location:**

Westside Pump Station
3112 Yellowtail Drive
Los Alamitos, CA 90720

5. **Project Sponsor's Name and Address:**

Orange County Sanitation District (OCSD)
10844 Ellis Avenue
Fountain Valley, CA 92708

6. **General Plan Designation:**

The proposed Project site is designated as Residential (R-1) under the Unincorporated Orange County General Plan.

7. **Zoning:**

The proposed Project site is zoned as Residential (R-1).

8. **Description of Project:**

The proposed West Side Pump Station Rehabilitation Project (Project) would rehabilitate the Westside pump station, and includes site and access improvements, modification to the existing building, replacement of equipment, instrumentation and controls, ventilation and odor control, and installation of an emergency power generator. The proposed Project would enhance the reliability of the Westside Pump Station.

9. **Surrounding Land Uses and Setting:**

The surrounding land use of the proposed Project is a single-family residential community in Rossmoor in Unincorporated Orange County.

10. **Other public agencies whose approval is required:**

OCSD may be required to obtain approval from the following public agencies: County of Orange, South Coast Air Quality Management District.

Environmental Factors Potentially Affected:

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

- | | | |
|--|--|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Public Services |
| <input type="checkbox"/> Agriculture Resources | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Recreation |
| <input type="checkbox"/> Air Quality | <input type="checkbox"/> Land Use/Planning | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Utilities/Service Systems |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Mandatory Findings of Significance |
| <input type="checkbox"/> Geology/Soils | <input type="checkbox"/> Population/Housing | |

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 EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.

 Signature

 Date

 Printed Name

 For

Evaluation of Environmental Impacts:

- 1) A brief explanation is required for all answers except “No Impact” answers that are adequately supported by the information sources a lead agency cites in the parentheses following each question. A “No Impact” answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A “No Impact” answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
- 2) All answers must take account of the whole action involved, including offsite as well as onsite, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
- 3) Once the Lead Agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. “Potentially Significant Impact” is appropriate if there is substantial evidence that an effect may be significant. If there are one or more “Potentially Significant Impact” entries when the determination is made, an EIR is required.
- 4) “Negative Declaration: Less Than Significant With Mitigation Incorporation” applies where the incorporation of mitigation measures has reduced an effect from “Potentially Significant Impact” to a “Less Than Significant Impact.” The Lead Agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from Section XVII, “Earlier Analyses,” may be cross-referenced).
- 5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a) Earlier Analysis Used. Identify and state where they are available for review.
 - b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c) Mitigation Measures. For effects that are “Less than Significant with Mitigation Incorporation,” describe the mitigation measures that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
- 6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

-
- 7) Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
 - 8) This is only a suggested form, and lead agencies are free to use different formats; however, lead agencies should normally address the questions from this checklist that are relevant to a project's environmental effects in whatever format is selected.
 - 9) The explanation of each issue should identify:
 - a) the significance criteria or threshold, if any, used to evaluate each question; and
 - b) the mitigation measure identified, if any, to reduce the impact to less than significance.

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
I. AESTHETICS – Would the project:				
a) Have a substantial adverse effect on a scenic vista?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare, which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
II. AGRICULTURE RESOURCES – In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Involve other changes in the existing environment, which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
III. AIR QUALITY – Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) 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 (including releasing emissions, which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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 Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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 Game or US Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
V. CULTURAL RESOURCES – Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VI. GEOLOGY AND SOILS – Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:				
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? Refer to Division of Mines and Geology Special Publication 42.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or offsite landslide, lateral spreading, subsidence, liquefaction or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VII. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
d) Be located on a site, which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
VIII. HYDROLOGY AND WATER QUALITY – Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level, which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner, which would result in substantial erosion or siltation on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner, which would result in flooding on- or offsite?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
e) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures, which would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Inundation by seiche, tsunami, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
IX. LAND USE AND PLANNING – Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
X. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XI. NOISE – Would the project result in:				
a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XII. POPULATION AND HOUSING – Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XIII. PUBLIC SERVICES –				
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:				
a) Fire protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Police protection?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Schools?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Parks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Other public facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
XIV. 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities, which might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XV. TRANSPORTATION/TRAFFIC— Would the project:				
a) Cause an increase in traffic, which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Result in inadequate parking capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
XVI. UTILITIES AND SERVICE SYSTEMS— Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Issues:	Potentially Significant Impact	Less Than Significant With Mitigation Incorporation	Less Than Significant Impact	No Impact
c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider, which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

XVII. MANDATORY FINDINGS OF SIGNIFICANCE –

a) Does the project have the potential to 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, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable? (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Does the project have environmental effects, which will cause substantial adverse effects on human beings, either directly or indirectly?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

4.0 Environmental Evaluation

The following evaluation provides responses to the questions in the Environmental Checklist. A brief explanation for each question in the Environmental Checklist is provided to adequately support each impact determination. All responses consider the whole of the action involved including construction and operational impacts as well as direct and indirect impacts. Environmental factors potentially affected by the proposed Project are presented below and organized according to the format of the Checklist.

I. Aesthetics

Would the project:

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

No Impact – There is no scenic vista related to the proposed Project area. Therefore, there will be no 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?

No Impact – The pump station is not within or adjacent to a state scenic highway designated by the California Department of Transportation (Caltrans) under the California Scenic Highways Program (Caltrans, 2000).

- c) Substantially degrade the existing visual character or quality of the site and its surroundings?

Less Than Significant Impact – Construction of the proposed Project would result in a temporary impact to the existing visual character of the immediate Project site. However, the level of activity would be such that it would not substantially degrade the existing visual character of the site and its surroundings during construction.

The visual character and quality of the site and its surroundings would not be impacted during operations. The Westside Pump Station is located in a developed residential community and the proposed Project would rehabilitate an existing facility. Interior and underground sections of the pump station will be rehabilitated for improved personnel access, new pumps and permanently separated electrical and mechanical control rooms. Following construction, these facilities will be enclosed and would have no impact to the existing visual character or quality of the site. The proposed Project also includes exterior modifications to the Project site, such as an emergency power generator and an enclosed stairwell and pump station access shaft. As part of the proposed Project, improvements may be incorporated during final design to integrate the rehabilitated pump station with the surrounding setting and the adjacent residential area.

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

No Impact – The proposed Project would not create a new source of substantial light or glare. Temporary construction activities would occur during daylight and no lighting would be needed. Operation of the pump station would not include a new source of light or glare. Therefore, the proposed Project will not create a new source of substantial light or glare and will have no impact on day or nighttime views in the area.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Aesthetics. Therefore, no mitigation measures are proposed.

II. Agricultural Resources

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. Would the project:

- a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

No Impact – The proposed Project is within a developed urban area. Therefore, the proposed Project will have no impact on any areas of Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

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

No Impact – The proposed Project site is not zoned for agricultural use and is not under a Williamson Act contract. Therefore, the proposed Project will not conflict with zoning for agricultural use, or a Williamson Act contract.

- c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?

No Impact – There are no farmlands on the Project site; therefore, the proposed Project would not affect agricultural resources including the conversion of Farmland to non-agricultural use. Therefore, the proposed Project will not involve other changes in the existing environment which, due to their location or nature, could result in the conversion of Farmland to non-agricultural use.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Agricultural Resources. Therefore, no mitigation measures are proposed.

III. Air Quality

Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations.

Significance Criteria

The proposed Project is located within the Orange County sub-area of the South Coast Air Basin (SCAB). Construction and operation activities associated with the proposed Project must be consistent with the Air Quality Management Plan (AQMP) that is managed by the South Coast Air Quality Management District (SCAQMD).

Thresholds of significance for allowable construction and operational air emissions that have been established by the SCAQMD are set forth in the SCAQMD CEQA Air Quality Handbook, November 1993 Revision.

These thresholds are provided below:

Thresholds of Significance for Construction Emissions

- 75 pounds per day of reactive organic compounds (ROC)
- 100 pounds per day of nitrogen oxides (NO_x)
- 550 pounds per day of carbon monoxide (CO)
- 150 pounds per day of particulate matter less than 10 microns in diameter (PM₁₀)
- 150 pounds per day of sulfur oxides (SO_x)

Thresholds of Significance for Operational Emissions

- 55 pounds per day of ROC
- 55 pounds per day of NO_x
- 550 pounds per day of CO
- 150 pounds per day of PM₁₀
- 150 pounds per day of SO_x

In addition to the above thresholds of significance for criteria pollutants, SCAQMD Rule 1402 specifies an action risk level for control of toxic air contaminants from existing sources. The action risk level specifies a quantitative limit that would require the implementation of risk reduction methods to control toxic air contaminants. For the purpose of this environmental evaluation, the action risk level functions as the threshold of significance for determining impact significance of toxic air contaminants. Specifically, quantitative limits are established for maximum individual cancer risk (MICR), cancer burden, and noncancer acute hazard index (Acute HI) and chronic hazard index (Chronic HI), and are applicable to total facility emissions.

Definitions of these terms are as follows:

MICR is the estimated probability of a potential maximally exposed individual contracting cancer as a result of exposure to toxic air contaminants over a period of 70 years for residential and 46 years for working receptor locations.

Cancer Burden means the estimated increase in the occurrence of cancer cases in a population subject to a MICR of greater than or equal to one in one million (1×10^{-6}) resulting from exposure to toxic air contaminants.

Total Acute HI is the sum of the individual substance acute HIs for all toxic air contaminants identified as affecting the same target organ system.

Total Chronic HI is the sum of the individual substance chronic HIs for all toxic air contaminants identified as affecting the same target organ system.

Thresholds are provided below:

Thresholds of significance for Toxic Air Contaminants

- MICR of 25 in 1 million (25×10^{-6})
- Cancer burden of 0.5
- Total Acute HI or Total Chronic HI of three (3.0) for any target organ system or receptor location

Projects in the South Coast Air Basin with construction or operational related emissions that exceed any of these emissions thresholds may be considered to have significant air quality impacts.

Would the project:

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

No Impact – Emissions would be limited to temporary construction activities and the use of an emergency generator during operations. As discussed in III. b below, the proposed Project would not result in the exceedance of SCAQMD-established air quality standards during construction or operations. Therefore, the proposed Project will have no impact to the implementation of the applicable air quality plan.

- b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?

Less Than Significant Impact – The proposed Project site is located within the Orange County sub-area of the South Coast Air Basin (SCAB). The SCAB regulates stationary mobile air emission sources within the SCAB. Potential air quality impacts associated with the proposed Project could result from temporary construction and operational activities at the Westside Pump Station.

To evaluate potential construction-related air quality impacts, anticipated construction emissions were determined and compared to the thresholds of significance for construction emissions listed above. Emissions from heavy equipment use and worker travel to and from the site, as identified in Table 2-1, were calculated based on a worst-case daily emissions scenario for an 8-hour work day. For the purpose of this emissions evaluation it was assumed that workers would have a 20-mile commute to the proposed Project site.

Table 4-1 below summarizes the emissions associated with the proposed Project construction. Emissions associated with construction of the proposed Project would be below thresholds of significance for construction; therefore, the construction emissions impacts are less than significant.

TABLE 4-1
Construction Emissions

Attribute	Emissions				
	NOx	CO	PM ₁₀	ROC	SOx
Criteria Pollutant					
Max Project (lb/day)	31	38	3	2.1	6
SCAQMD Threshold (lb/day)	100	550	150	75	150
Max Project (ton/quarter)	0.2	1.05	0.11	0.04	0.03
SCAQMD Threshold (ton/quarter)	2.5	24.75	6.75	2.5	6.75

The proposed Project is not anticipated to have long-term operational impacts that conflict with SCAQMD-established air quality standards. The primary source of operational emissions included in the proposed Project is an emergency power generator that is planned for standby operations. This planned emergency generator would comply with SCAQMD regulations and permitting requirements. Prior to the operation of the emergency generator, OCSD would obtain a Permit to Construct/Operate from SCAQMD for the operation of an emergency stationary internal combustion engine. Emissions and allowable usage hours for the emergency generators would be regulated by SCAQMD Rule 1303 (amended December 6, 2002), Rule 1304 (amended June 14, 1996), and Rule 1470 (adopted April 2, 2004).

The emergency generator that is included in the proposed Project satisfies Rule 1304(a)(4) and is exempt from the modeling requirements of Rule 1303(b)(1) and 1303(b)(2) because it will be exclusively used for emergency standby purposes and would not operate more than 200 hours per year. As required, the number of operational hours would be evidenced by an engine-hour meter or equivalent method.

The emergency generator that would be used for the proposed Project would be defined as an Emergency Standby Engine and would be used for Emergency Use according to Rule 1470(b)(20) and Rule 1470(b)(21). The planned emergency generator satisfies the limits of non-emergency operation of Rule 1470(c)(2) because it is not located within 500 feet from a school. The planned emergency generator would also satisfy the operating requirements and emission standards of Rule 1470(c)(2) because OCSD would obtain a Permit to Operate from SCAQMD and a SCAQMD pre-certified emergency generator unit would be procured for the proposed Project. According to Rule 1470(c)(2)(C), the number of hours per year that OCSD may utilize the planned emergency generator for maintenance and testing purposes will depend on particulate matter (PM) emission rates. Hours of allowable maintenance and testing usage varies from up to 50 hours per year to up to 100 hours per year, depending on grams of PM emitted per horse-power hour. OCSD will determine allowable maintenance and testing

usage once the emergency generator is procured and will operate the emergency generator in conformance with the provisions for allowable hours.

A screening analysis to support a health risk assessment (HRA) was completed to comply with SCAQMD Rule 1402 for the proposed Project, including the diesel-fueled emergency generator.

The screening analysis was based on the following assumptions:

- Unit is approximately 500 KW
- Results are measured at the point of maximum impact
- Diesel particulate emission factor of 0.15 gm/bhp-hr
- Hours of operation: 50 hrs/yr
- Other air toxics emissions obtained from EPA reference documents

At the point of maximum impact the results of the screening are:

- MICR of 7.6 in one million
- Cancer burden of less than 0.0004
- Total Acute HI of 0.07
- Total Chronic HI of 0.005

The screening analysis demonstrates that the proposed Project would not emit toxic air contaminants that would exceed the action risk level identified in Rule 1402. Therefore, the proposed Project would not result in a significant impact related to health risks associated with the emissions of toxic air contaminants.

With the exception of the planned diesel-fueled emergency generator, no new emissions would result during operations of the proposed Project. Additionally, the emergency generator would be operated in conformance with applicable SCAQMD Rules, and emissions of the emergency generator would be below SCAQMD thresholds of significance for operations and toxic air contaminants. Therefore, the proposed Project would have a less than significant impact on air quality for both construction and operations.

- c) 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 (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Less Than Significant Impact – New emissions associated with the proposed Project would be limited to temporary construction activities and the standby operation of an emergency generator. As described in Response III. b, above, the proposed Project would not result in the exceedance of SCAQMD-established air quality standards during construction. Additionally, use of the emergency generator is subject to and would comply with SCAQMD Rules 1303(b), Rule 1304 and Rule 1470. As described in Response III. b, above, emissions from the emergency generator will not exceed SCAQMD-established air quality standards. Therefore, construction and operations of the proposed Project will not result in a cumulatively considerable net increase of any criteria pollutant for which the SCAB is in non-attainment.

- d) Expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant Impact – Sensitive receptors include schools, hospitals, and convalescent homes since children, elderly people and the infirm are considered to be more sensitive than others to criteria air pollutants. Criteria air pollutants are those that are associated with numerous effects on human health. The Leisure World retirement community for adults is located approximately 1 mile southwest of the proposed Project site. This gated community is home to approximately 9,000 residents¹. The proposed Project is located in a residential community and children and elderly people living in the vicinity of the proposed Project site could be exposed to air pollution at the proposed Project site. However, temporary increased emissions of criteria air pollutants during construction would not exceed SCAQMD-established air quality standards (see Response III. b, above). Additionally, the proposed diesel-fueled standby emergency generator would not emit toxic air contaminants that would exceed the action risk level identified in Rule 1402 (see Response III. b, above). Therefore, there are no anticipated impacts to sensitive receptors during construction or operations of the proposed Project.

- e) Create objectionable odors affecting a substantial number of people?

Less Than Significant Impact – Project activities would create a small amount of objectionable odors resulting from sewer modification and the use of heavy equipment during construction. However, due to the Project location, those affected would be limited to construction workers and those passing by on Yellowtail Drive. Additionally, an odor assessment and odor control plan will be prepared during design and will be implemented during construction and operation. Therefore, the proposed Project will have a less than significant impact associated with the creation of objectionable odors affecting a substantial number of people.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Air Quality. No mitigation measures are proposed.

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 Game or U.S. Fish and Wildlife Service?

No Impact – The proposed Project is within a developed urban area that does not support native habitat or any identified species. Therefore, no impact is anticipated.

- 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 Game or U.S. Fish and Wildlife Service?

¹ (<http://www.beachcalifornia.com/seal5.html>)

No Impact – The Project site is within a developed urban area and does not support any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service. Therefore, no impact is anticipated.

- c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

No Impact – The proposed Project is completely developed and within a developed urban area, and therefore, no federally protected wetlands will be impacted.

- 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?

No Impact – The proposed Project site is completely developed and within a developed urban area that does not support native habitat or any migratory fish or wildlife species. Additionally, the Project site is not a migratory wildlife corridor or native wildlife nursery site. Therefore, no impact is anticipated.

- e) 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 area surrounding the proposed Project site. Refer to Response IV. f., below. Therefore, no impact is anticipated.

- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact – The proposed Project is outside of the Orange County Coastal/Central Natural Community Conservation Plan (NCCCP), which is a special area management plan established to protect prime habitat and State listed species in Orange County. The Westside Pump Station is outside the NCCCP and the proposed rehabilitation activities would be conducted entirely within developed urban land that does not support native habitat. Therefore, no impact is anticipated.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Biological Resources. No mitigation measures are proposed.

V. Cultural Resources

Would the project:

- a) Cause a substantial adverse change in the significance of a historical resource as defined in section 15064.5?

No Impact – The proposed Project would improve an existing pump station that was constructed in 1959. The existing pump station does not contain any qualities that would be considered as historic under section 15064.5. Therefore, construction and operation of the proposed Project would have no impact to historic resources.

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

No Impact – The proposed Project would impact areas that have already been disturbed. No excavation into undeveloped lands would occur. Thus, excavation would not affect archaeological resources. Therefore, the proposed Project will not cause a substantial adverse change in the significance of an archaeological resource under section 15064.5.

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

No Impact – The proposed Project would impact areas that have already been disturbed. No excavation into undeveloped lands would occur. Thus, excavation would not affect paleontological resources. Therefore, the proposed Project will not directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

- d) Disturb any human remains, including those interred outside of formal cemeteries?

No Impact – The proposed Project would impact areas that have already been disturbed. Therefore, the proposed Project is not expected to result in a significant adverse impact related to the disturbance of human remains.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Cultural Resources. No mitigation measures are proposed.

VI. Geology and Soils

Would the project:

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

Less Than Significant Impact – Surface fault rupture is the offset or rupture of the ground surface by relative displacement across a fault during a seismic event or earthquake. The May 1, 1999, updated version of Table 4 from the 1997 edition of Special Publication 42 (California Department of Conservation, Division of Mines and Geology, 1999), shows that the proposed Project, which is in the community of Rossmoor in Unincorporated Orange County, is located in an Alquist-Priolo Special Study Zone. However, the proposed Project would improve an existing pump

station, and would be designed and constructed in conformance with the Uniform Building Code seismic engineering standards. Additionally, the City of Los Alamitos General Plan shows that surface rupture resulting from earthquakes is unlikely because no faults are identified in Rossmoor. Therefore, exposure of people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from the rupture of a known earthquake fault is considered to be a less than significant impact.

ii) Strong seismic ground shaking?

Less Than Significant Impact – The City of Los Alamitos General Plan identifies several surrounding regional faults, which include, the Newport-Inglewood, Norwalk, El Modena, Whittier-Elsinore Fault, and Elysian Park Faults. The major perimeter faults within 50 miles of the proposed Project area are the San Andreas and San Jacinto Faults. Strong seismic ground-shaking could occur as a result of seismic activity on any known or unknown nearby active or potentially active faults. However, the proposed Project would improve an existing pump station, and would be designed and constructed in conformance with the Uniform Building Code seismic engineering standards. Therefore, exposure of people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from the strong seismic ground shaking is considered to be a less than significant impact.

iii) Seismic-related ground failure, including liquefaction?

Less than Significant Impact – The potential for seismic-related ground failure is associated with the probability of severe ground shaking as a result of an earthquake on a nearby active fault. Liquefaction is the phenomenon where saturated granular soils develop high pore water pressures during seismic shaking and behave like a heavy fluid. This phenomenon generally occurs in areas of high seismicity where groundwater is shallow and loose granular soils or hydraulic fill soils subject to liquefaction are present. For liquefaction to develop, loose granular sediments below the groundwater table must be present and shaking of sufficient magnitude and duration must occur.

The Westside Pump Station is located in the ancestral floodplain of the San Gabriel River and is underlain by thick deposits of recent alluvium. The alluvium is anticipated to consist of fine to medium-grained sands, silty sands and silts. Considering the possibility of seismic activity on any known or unknown nearby active or potentially active faults, seismic-related ground failure, including liquefaction, could potentially occur. However, the proposed Project would rehabilitate an existing pump station, and would be designed and constructed in conformance with the Uniform Building Code seismic engineering standards. Construction would be temporary and operation would require minimal onsite operations and maintenance staff. Therefore, exposure of people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from seismic-related ground failure, including liquefaction, is considered to be a less than significant impact.

iv) Landslides?

No Impact – The proposed Project is not located in an area of probable landslides. As stated in the City of Los Alamitos General Plan, due to its flat topography, residents are not exposed to geologic hazards such as landslides. Therefore, the proposed Project will not result in an impact related to landslides.

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

No Impact – The proposed Project site is a paved pump station and excavation would occur within a contained area. Following the installation of sewer pumps and electrical and mechanical control rooms, some excavation materials may be replaced as fill and the impacted area would be returned to grade. Therefore, it is not anticipated that the proposed Project will result in impacts related to 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?

Less than Significant Impact – Refer to Responses VI. a. iii and iv, above, for evaluation of liquefaction and landslides. The design and construction of the proposed Project will conform with Uniform Building Code seismic engineering standards. Additionally, backfill will be placed to meet standard engineering design requirements. Therefore, impacts due to unstable soil or a geologic unit, including on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse, will be less than significant.

d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

No Impact – Section 1803.2 of the Uniform Building Code pertains to foundations and requires special design considerations for structures resting on soils with an expansion index greater than 20, as defined in Table 18-1-B of the Uniform Building Code. The proposed Project would rehabilitate an existing pump station, and would have a minimal effect on the existing foundation. Therefore, the proposed Project will not result in a significant adverse impact from expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property.

e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

No Impact – No septic tanks or alternative wastewater disposal systems will serve the proposed Project. Therefore, the proposed Project will not result in impacts related to septic tanks or wastewater disposal systems.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Geology and Soils. No mitigation measures are proposed.

VII. 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?

No Impact – The proposed Project would use construction materials consistent with existing local, state, and federal regulations. The proposed Project is not anticipated to generate any substantial quantities of hazardous materials. Additionally, diesel-fuel for the emergency generator will be stored and used in conformance with existing local, state, and federal regulations. Therefore, the proposed Project is not anticipated to result in an adverse impact related to the 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?

No Impact – The proposed Project would rehabilitate an existing pump station and it is not anticipated that it would generate a substantial amount of hazardous materials. Additionally, diesel-fuel for the emergency generator will be stored and used in conformance with existing local, state, and federal regulations. Therefore, the proposed Project will not create a significant hazard to the public or 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 0.25 mile of an existing or proposed school?

No Impact – There are no existing or proposed schools within 0.25 mile of the proposed Project site. Therefore, the proposed Project will not result in a hazards related impact on an existing or proposed school within 0.25 mile of the proposed Project site.

- d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

No Impact – The Department of Toxic Substances Control, Hazardous Waste and Substances List (Cortese List) confirms that there are no known significant hazardous materials sites within the proposed Project site. Therefore, the proposed Project will not result in an impact related to hazardous materials sites.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

No Impact – The proposed Project site is not located within an airport land use plan or within 2 miles of a public airport or public use airport. Therefore, the proposed Project will not result in an associated safety hazard for people residing or working in the Project area.

- f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

No Impact – Within several miles of the proposed Project site is the Los Alamitos Armed Forces Reserve Center, which includes a military airstrip. However, the proposed Project would rehabilitate an existing pump station and would not have any effect on the airstrip. Therefore, the proposed Project will not result in a safety hazard impact related to private airstrips.

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

No Impact – All roads adjacent to the Project site will remain open during construction of the proposed Project, eliminating any potential impact related to access for emergency vehicles. Therefore, the proposed Project is not anticipated to interfere with an adopted emergency response plan or emergency evacuation plan.

- h) Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

No Impact – The proposed Project is not located near wildland areas or areas where wildlands are adjacent to urbanized areas. Therefore, the construction and operation of the proposed Project is not anticipated to have an adverse impact related to the exposure of people or structures to a significant risk of loss, injury, or death involving wildland fires.

Mitigation Measures

The proposed Project will not result in a significant adverse impact to Hazards and Hazardous Materials. No mitigation measures are proposed.

VIII. Hydrology and Water Quality

Would the project:

- a) Violate any water quality standards or waste discharge requirements?

Less Than Significant Impact – Construction of the proposed Project includes minor excavation, however, all excavation would occur within an enclosed Project site. This would prevent erosion and sedimentation associated with stormwater from affecting surface waters. Additionally, it is not anticipated that groundwater would be encountered. In the event that groundwater is encountered it would be dewatered and discharged to the sanitary sewer, which is part of OCSD's collection system, and would not affect water quality. Construction staging would be confined to the enclosed Project site, with the exception of temporary parking of vehicle's on the adjacent road. Thus, any residual oil, grease, and other fuel products from equipment would be maintained onsite, and would not affect surface waters. Additionally, equipment would be inspected for leaks and appropriately maintained as part of customary construction practices. Thus, any residual oil, grease, and other fuel products from equipment would

be negligible and would not affect water quality. Operation of the proposed Project would have no effect on surface or groundwater. Therefore, the proposed Project is not anticipated to result in a significant adverse impact related to a violation of any water quality standards or waste discharge requirements.

- b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

No Impact – Construction of the proposed Project would not result in a depletion of groundwater supplies because any pumping would be limited to dewatering. Implementation of the proposed Project would not interfere with groundwater recharge because it would have no increase in impervious surface area. Therefore, the proposed Project will not result in a significant adverse impact related to groundwater supply or recharge.

- c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?

No Impact – The proposed Project would not substantially alter the existing drainage pattern of the site or area. Construction activities would be limited to the enclosed Project site and would not affect the course of a stream or river. These resources do not exist on the Project site and site runoff flows to the local stormwater collection system. Therefore, the proposed Project would not result in a significant impact related to the alteration of an existing drainage pattern, including erosion or siltation on- or off-site.

- d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

No Impact – The proposed Project would not substantially alter the existing drainage pattern of the site or area. Construction activities would be limited to the enclosed Project site and would not affect the course of a stream or river. These resources do not exist on the Project site and site run-off flows to the local stormwater collection system. Also, the proposed Project would have no increase in impervious surface area. Therefore, the proposed Project is not anticipated to result in a substantial increase in the volume of runoff or increase flooding on- or off-site.

- e) 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?

No Impact – The proposed Project would not create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems. Construction activities would be limited to the enclosed Project site and best management practices (BMPs) would be implemented to control erosion and sedimentation of excavated spoil from stormwater runoff. This would prevent erosion

and sedimentation associated with stormwater from affecting surface waters. Additionally, the existing pump station does not exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff, and implementation of the proposed Project would have no additional effect in this regard. Therefore, the proposed Project is not anticipated to result in a significant adverse impact related to polluted runoff or on the capacity of stormwater drainage systems.

- f) Otherwise substantially degrade water quality?

Less Than Significant Impact – Refer to Response VIII. a, above, which addresses impacts to water quality. The proposed Project is not anticipated to substantially degrade water quality.

- g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

No Impact – There would be no housing development within a 100-year flood hazard area associated with the proposed Project.

- h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?

No Impact – The proposed Project does not include any structures which would impede or redirect flood flows. Therefore, the proposed Project would have no impact related to the placement of structures that would impede or redirect flood flows within a 100-year flood hazard area.

- i) Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of the failure of a levee or dam?

No Impact – There is no levee or dam within the vicinity of the proposed Project. Therefore, there would be no impacts associated with risk of loss, injury, or death involving flooding as a result of the failure of a levee or dam.

- j) Inundation by seiche, tsunami, or mudflow?

No Impact – Because of the location of the proposed Project site, it is not likely that it would be inundated by a seiche, tsunami, or mudflow.

Mitigation Measures

The proposed Project will not result in significant adverse impacts to Hydrology and Water Quality. Therefore, no mitigation measures are proposed.

IX. Land Use and Planning

Would the project:

- a) Physically divide an established community?

No Impact – The proposed Project would rehabilitate an existing pump station and would not expand beyond the boundary of the existing facility. Project implementation would be on an existing site that is owned by OCSD. Therefore, the proposed Project would not physically divide an established community.

- b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact – The proposed Project would occur on an existing site that is owned by OCSD. The proposed Project would not change existing land uses and would not conflict with existing general plan designations or zoning ordinances. Therefore, the proposed Project would not conflict with any applicable land use plan, policy, or regulation.

- c) Conflict with any applicable habitat conservation plan or natural community conservation plan?

No Impact – The proposed Project site is not within an adopted habitat conservation plan or natural community conservation plan area. Therefore, the proposed Project will not conflict with any applicable habitat conservation plan or natural community conservation plan.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Land Use and Planning. Therefore, no mitigation measures are proposed.

X. 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?

No Impact – The proposed Project would rehabilitate an existing pump station and would not use mineral resources. Furthermore, it would not affect the availability of any known mineral resources. Therefore, the proposed Project will not 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?

No Impact – The proposed Project site is not located in a delineated mineral resource area. Therefore, the proposed Project will not result in the loss of availability of a locally important mineral resource recovery site.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Mineral Resources. Therefore, no mitigation measures are proposed.

XI. Noise

Would the project result in:

- a) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?

Less Than Significant Impact – Construction noise generated from equipment use would be the primary source of noise associated with the proposed Project. In accordance with the County of Orange noise ordinance, construction activities would occur between the hours of 7:00 a.m. and 7:00 p.m. Monday through Saturday. No construction activities would occur outside these hours or on Sundays or federal holidays unless a temporary waiver is granted by an authorized representative. These same limitations would be extended to trucks, vehicles, and equipment that are involved with material deliveries, loading, or transfer of materials, equipment service, maintenance, etc. The pump station would operate within an enclosed building that would limit noise from disturbing the occupants of surrounding properties. Additionally, an emergency generator is included for the proposed Project. However, the emergency generator would operate on a temporary basis and would be limited to no more than 200 hours per year. Thus, there would be no permanent increase in noise from operation and maintenance of the facilities. Furthermore, the emergency generator would be within a noise abatement enclosure and will operate in compliance with local noise regulations for residential areas. Therefore, the proposed Project will not result in the exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, and impacts will be less than significant.

- b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

No Impact – Construction of the proposed Project would not require activities commonly known to produce excessive groundborne vibration or noise (e.g., pile driving). Therefore, the proposed Project will not result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels, and impacts will be less than significant.

- c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact – Refer to Response XI. a, above, which evaluates potential construction and operational noise impacts of the proposed Project. The

proposed Project would rehabilitate an existing pump station, and would not result in a permanent increase in ambient noise from operation of the proposed Project. An emergency generator is included for the proposed Project. However, the emergency generator would operate on a temporary basis and would be limited to no more than 200 hours per year. Additionally, the emergency generator would be within a noise abatement enclosure and will operate in compliance with local noise regulations for residential areas. Therefore, a substantial permanent increase in ambient noise levels is not anticipated for the proposed Project site, and impacts would be less than significant.

- d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact – Refer to Response XI. a, above.

- e) For a project located within an airport land use plan or, where such a plan has not been adopted, within 2 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 proposed Project site is not located within an airport land use plan. Therefore, the proposed Project will not result in the exposure of people residing or working in the Project area to excessive noise levels.

- f) For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

No Impact – Within several miles of the proposed Project site is the Los Alamitos Armed Forces Reserve Center, which includes a military airstrip. However, the proposed Project would rehabilitate an existing pump station and would not have any effect on the airstrip. Therefore, the proposed Project will not expose people residing or working in the project area to excessive noise levels related to private a airstrip.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Noise. No mitigation measures are proposed.

XII. Population and Housing

Would the project:

- a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?

No Impact – The proposed Project would rehabilitate an existing pump station and would not directly or indirectly induce substantial population growth in the area. Therefore, the proposed Project will not result in an impact related to inducing population growth.

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

No Impact – The proposed Project will have no impact associated with displacing existing housing or necessitating the construction of replacement housing.

- c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact – The proposed Project will have no impact associated with displacing people or necessitating the construction of replacement housing.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Population and Housing. Therefore, no mitigation measures are proposed.

XIII. Public Services

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

Fire protection?

Police protection?

Schools?

Parks?

Other public facilities?

No Impact – The proposed Project would rehabilitate an existing pump station and will not result in an adverse impact or additional need for fire protection, police protection, schools, parks, or other public facilities. Also, refer to Response XV. e.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Public Services. Therefore, no mitigation measures are proposed.

XIV. 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?

No Impact – The proposed Project would not increase the use of parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated. Therefore, the proposed Project will have no impact on the use of existing neighborhood and regional parks or other recreational facilities.

- 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 does not include recreational facilities, and would not require the construction or expansion of recreational facilities. Therefore, the proposed Project will not have an adverse physical effect on the environment related to recreational facilities.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Recreation. Therefore, no mitigation measures are proposed.

XV. Transportation/Traffic

Would the project:

- a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?

Less Than Significant Impact - The Westside Pump Station is on Yellowtail Drive in a residential community in Unincorporated Orange County. Vehicles entering and exiting the proposed Project site during construction or operations would use Yellowtail Drive. A small increase in traffic at the proposed Project area may result during construction from the transport of workers and materials to the site. However, such an increase would have a negligible affect on the capacity of the street system and would not result in congestion at intersections. There would be no increase in traffic related to operation of the existing pump station. Therefore, the proposed Project is not anticipated to result in an adverse impact related to traffic.

- b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

No Impact - The minimal increase in traffic at the proposed Project area that may result from the transport of workers and materials to the site during construction (see Table 2-1) is not expected to result in change to existing level of service (LOS). Therefore, the proposed Project will not result in a significant adverse impact related to LOS.

- c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact - The proposed Project would have no impact on air traffic patterns.

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

No Impact - The proposed Project would not increase hazards due to design features or incompatible uses.

- e) Result in inadequate emergency access?

No Impact – The proposed Project would not hinder emergency access during construction or operation. Therefore, the proposed Project is not anticipated to result in a significant adverse impact related to emergency access.

- f) Result in inadequate parking capacity?

Less Than Significant Impact – A small amount of curbside parking in front of the pump station may be blocked-off for construction vehicles and trucks. This would be temporary and would not result in inadequate parking capacity. Therefore, the proposed Project will not result in a significant adverse impact related to parking capacity.

- g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

No Impact – There are no existing bus turnouts, bicycle racks or bicycle lanes on the Project site. Therefore, the proposed Project will not result in an impact related to alternative transportation.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Transportation/Traffic. Therefore, no mitigation measures are proposed.

XVI. Utilities and Service Systems

Would the project:

- a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

No Impact – The proposed Project would rehabilitate an existing pump station. This would not generate wastewater and would not result in an increase in OCS D treatment capacity. Therefore, the proposed Project would not exceed existing wastewater treatment requirements of the RWQCB.

- b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

Less Than Significant Impact – Although the proposed Project would increase the overall pumping capacity from 12.8 million gallons per day (mgd) to 14.4 mgd, such an increase is consistent with the long-term needs of OCS D to accommodate current and planned future wastewater demand. OCS D is currently expanding its wastewater treatment facilities as part of its Secondary Treatment and Plan Improvement Project. Expansion of the wastewater treatment facilities is the subject of a separate Environmental Impact Report. The proposed Project will not result in a significant adverse impact related to the construction of new water or wastewater treatment facilities or expansion of existing facilities.

- c) Require or result in the construction of new stormwater drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?

No Impact – No new or expansion of existing stormwater drainage facilities are planned as part of or a result of this Project.

- d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

No Impact – Construction and operation of the proposed Project would not require the provision of new water supplies. Water entitlements and resources will not be impacted by the proposed Project.

- e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact – Refer to Response XVI. b, above. The proposed Project would rehabilitate an existing pump station, which would result in a slight increase in wastewater pumping capacity. Such an increase in pumping capacity would have a negligible effect on the wastewater treatment capacity of OCSD. Additionally, the proposed Project would not generate any new wastewater.

- f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact – Small amounts of debris or solid waste may be generated during construction of the proposed Project and would be transported to an approved solid waste disposal facility. Given the small quantity of material, the proposed Project is not expected to substantially affect the capacity of existing landfills. Upon completion of construction, the Project would not generate solid waste.

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

No Impact – Solid waste produced by the proposed Project will be disposed at a properly permitted facility in accordance with federal and state laws.

Mitigation Measures

The proposed Project will not result in a significant adverse impact related to Utilities and Service Systems. Therefore, no mitigation measures are proposed.

XVII. Mandatory Findings of Significance

- a) Does the project have the potential to 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, 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?

No Impact – The proposed Project would rehabilitate an existing pump station. The proposed Project would not result in a significant adverse impact on the environment, including biological and cultural resources. The proposed Project will not eliminate important examples of 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)?

No Impact – The proposed Project would rehabilitate an existing pump station. The proposed Project is not anticipated to result in any significant adverse impacts and is not anticipated to result in any significant adverse cumulative impacts.

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

No Impact – The proposed Project would not have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly.

5.0 Preparers and Contributors

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Appendix A Construction Emission Calculations

Appendix A - Construction Emission Calculations

ASSUMPTIONS:

1. Assume all equipment is diesel.
2. ARB OFFROAD model emission factors for 2004 used for equipment emission calculations.
3. Sox equipment emission factors from SCAQMD CEQA Handbook 1993.
4. Horsepower and load from SCAQMD CEQA Handbook 1993.
5. Assume pickup trucks travel 20 miles per day.
6. Assume dump truck, delivery truck, and water truck = other construction equipment in SCAQMD CEQA Handbook 1993.
7. Construction equipment numbers, schedule, and number of workers contained in Project Description.

NOx Emissions

Worst Case Scenario

Days

Day	1	2	3	4	5	6	7	8	9	10	11 through 90
Activities											
Excavation and Facility Installation (10 days)	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	28.8	0.0
Management Activities and Contractor Staff (360 days)	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7	136.0
Construction Worker Commute (360 days)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	48.0
Total (lb/day)	31	31	31	31	31	31	31	31	31	31	184
SCAQMD Threshold is 100 lbs/day or											
SCAQMD Threshold is 2.5 tons/quarter											
Max. Total Pounds per Qtr	495.0										
Max. Tons Per Qtr (Max. Pounds per Qtr (90 days)/2000 pounds per ton)	0.2										

PM10 Emissions

Worst Case Scenario

Days

Day Activities	1	2	3	4	5	6	7	8	9	10	11 through 90
Excavation and Facility Installation (10 days)	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	
Management Activities and Contractor Staff (360 days)	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	6.1
Worker Travel on Paved Roads	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	174.1
Construction Worker Commute	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	0.03	2.40
Total (lb/day)	3	3	3	3	3	3	3	3	3	3	183
SCAQMD Threshold is 150 lbs/day or											
SCAQMD Threshold is 6.75 tons/quarter											
Max. Total Pounds per Qtr											217
Max. Tons Per Qtr (Max. Pounds per Qtr (90 days)/2000 pounds per ton)											0.108504

CO Emissions

Worst Case Scenario

Days

Day	1	2	3	4	5	6	7	8	9	10	11 through 90
Activities											
Excavation and Facility Installation (10 days)	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	16.8	
Management Activities and Contractor Staff (360 days)	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	15.9	1272.0
Construction Worker Commute	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6	448.0
Total (lb/day)	38	38	38	38	38	38	38	38	38	38	1720
SCAQMD Threshold is 550 lbs/day or											
SCAQMD Threshold is 24.75 tons/quarter											
Max. Total Pounds per Qtr											2103
Max. Tons Per Qtr (Max. Pounds per Qtr (90 days)/2000 pounds per ton)											1.051713

ROC Emissions

Days

Worst Case Scenario

Day	1	2	3	4	5	6	7	8	9	10	11 through 80
Activities											
Excavation and Facility Installation (10 days)	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
Management Activities and Contractor Staff (360 days)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	1.60
Construction Worker Commute	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	48.00
Total (lb/day)	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	49.6
SCAQMD Threshold is 75 lbs/day or											
SCAQMD Threshold is 2.5 tons/quarter											
Max. Total Pounds per Qtr											70.9
Max. Tons Per Qtr (Max. Pounds per Qtr (90 days)/2000 pounds per ton)											0.0355

SOx Emissions

Worst Case Scenario

Day	Days											
	1	2	3	4	5	6	7	8	9	10	11 through 90	
Activities												
Excavation and Facility Installation (10 days)	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9		
Management Activities and Contractor Staff (360 days)	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.80
Construction Worker Commute (360 days)	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.272
Total (lb/day)	6	6	6	6	6	6	6	6	6	6	6	1
SCAQMD Threshold is 150 lbs/day or												
SCAQMD Threshold is 6.75 tons/quarter												
Max. Total Pounds per Qtr	60											
Max. Tons Per Qtr (Max. Pounds per Qtr (90 days)/2000 pounds per ton)	0.03											

NOx Emissions

Excavation and Facility Installation (10 days)

Equipment	Qty	horsepower	Fuel type	Usage hrs/day	Emission Factors (lbs/ hp hr) NOx	Load Factor	# of days	Emissions (pounds per day)
								NOx
Dozer	0	356	diesel	0	0.009	0.59	0	0.0
Front-end loader	1	147	diesel	8	0.010	0.54	5	6.6
Excavator/trencher	1	58	diesel	8	0.012	0.695	5	3.7
Dump Truck	1	161	diesel	8	0.010	0.62	2	8.3
Concrete Truck	1	161	diesel	8	0.010	0.62	3	8.1
Delivery Truck	1	161	diesel	2	0.010	0.62	10	2.1
Water Truck	0	161	diesel	0	0.010	0.62	0	0.0
TOTAL	5							28.8

Management Activities and Contractor Staff (360 days)

Equipment	Qty	miles traveled	Fuel type	Usage hrs/day	Emission Factors (lbs/ mile) NOx	# of days	Emissions (pounds per day)
							NOx
Contractor Pickup Trucks	1	20	gasoline	8	0.002	360	0.3
Contractor Staff	4	20	gasoline	8	0.002	360	1.2
District Pickup Trucks	2	20	gasoline	4	0.002	360	0.3
TOTAL	7						1.73

The emission factor units are in pounds per horsepower-hour; HP assumptions are based on South Coast CEQA Handbook Table A9-8-C&D for "Other" Construction Equipment".

The formula is: (# of equipment x 8 hrs/day x hp x load factor x lbs/hp-hr) = pounds per day

CO Emissions
Excavation and Facility Installation (10 days)

				Usage	Emission Factors (lbs/ hp hr)	Load	# of	Emissions (pounds per day)
Equipment	Qty	horsepower	Fuel type	hrs/day	CO	Factor	days	CO
Dozer	0	356	diesel	0	0.002	0.59	0	0.0
Front-end loader	1	147	diesel	8	0.006	0.54	5	3.8
Excavator/trencher	1	58	diesel	8	0.007	0.695	5	2.2
Dump Trucks	1	161	diesel	8	0.006	0.62	2	4.8
Concrete Truck	1	161	diesel	8	0.006	0.62	3	4.8
Delivery Truck	1	161	diesel	2	0.006	0.62	10	1.2
TOTAL	5							16.8

Management Activities and Contractor Staff (360 days)

				Usage	Emission Factors (lbs/ mile)		# of	Emissions (pounds per day)
Equipment	Qty	miles traveled	Fuel type	hrs/day	CO		days	CO
Contractor Pickup Trucks	1	20	gasoline	8	0.017		360	2.6
Contractor Staff	4	20	gasoline	8	0.017		360	10.6
District Pickup Trucks	2	20	gasoline	4	0.017		360	2.6
TOTAL	7							15.90

The emission factor units are in pounds per horsepower-hour; HP assumptions are based on South Coast CEQA Handbook Table A9-8-C&D for "Other" Construction Equipment".

The formula is: (# of equipment x 8 hrs/day x hp x load factor x lbs/hp-hr) = pounds per day

ROC Emissions
Excavation and Facility Installation (10 days)

Equipment	Qty	horsepower	Fuel type	Usage hrs/day	Emission Factors (lbs/ hp hr) ROC	Load Factor	# of days	Emissions (pounds per day)
								ROC
Dozer	0	356	diesel	8	0.0002	0.59	0	0.0
Front-end loader	1	147	diesel	8	0.0005	0.54	5	0.3
Excavator/trencher	1	58	diesel	8	0.0006	0.695	5	0.2
Dump Trucks	1	161	diesel	8	0.0005	0.62	2	0.4
Concrete Truck	1	161	diesel	8	0.0005	0.62	3	0.4
Delivery Truck	1	161	diesel	4	0.0005	0.62	10	0.2
Water Truck	0	161	diesel	2	0.0005	0.62	0	0.0
TOTAL	5							1.5

Traffic Control and Management Activities (360 days)

Equipment	Qty	horsepower	Fuel type	Usage hrs/day	Emission Factors (lbs/ hp hr) ROC	Load Factor	# of days	Emissions (pounds per day)
								ROC
Contractor Pickup Trucks	1	8	gasoline	8	0.0008	0.43	360	0.022
Contractor Staff	4	8	gasoline	8	0.0008	0.43	360	0.088
District Pickup Trucks	2	8	gasoline	4	0.0008	0.43	360	0.022
TOTAL	7							0.02

The emission factor units are in pounds per horsepower-hour; HP assumptions are based on South Coast CEQA Handbook Table A9-8-C&D for "Other" Construction Equipment".

The formula is: (# of equipment x 8 hrs/day x hp x load factor x lbs/hp-hr) = pounds per day

PM₁₀ Emissions								
Excavation and Facility Installation (10 days)								
					Emission Factors (lbs/ hp hr)			Emissions (pounds per day)
				Usage		Load	# of	
Equipment	Qty	horsepower	Fuel type	hrs/day	PM ₁₀	Factor	days	PM ₁₀
Dozer	0	356	diesel	0	0.0002	0.59	0	0.0
Front-end loader	1	147	diesel	8	0.0004	0.54	5	0.3
Excavator/trencher	1	58	diesel	8	0.0006	0.695	5	0.2
Dump Trucks	1	161	diesel	8	0.0004	0.62	2	0.3
Concrete Truck	1	161	diesel	8	0.0004	0.62	3	0.3
Delivery Truck	1	161	diesel	2	0.0004	0.62	10	0.1
Water Truck	0	161	diesel	0	0.0004	0.62	0	0.0
TOTAL	5							1.2
Management Activities (360 days)								
					Emission Factors (lbs/mile)			Emissions (pounds per day)
				Usage			# of	
Equipment	Qty	miles traveled	Fuel type	hrs/day	PM ₁₀		days	PM ₁₀
Contractor Pickup Trucks	1	20	gasoline	8	0.0001		360	0.0
Contractor Staff	4	20	gasoline	8	0.0001		360	0.1
District Pickup Trucks	2	20	gasoline	4	0.0001		360	0.0
TOTAL	7							0.08
<p>The emission factor units are in pounds per horsepower-hour; HP assumptions are based on South Coast CEQA Handbook Table A9-8-C&D for "Other Construction Equipment".</p> <p>The formula is: (# of equipment x 8 hrs/day x hp x load factor x lbs/hp-hr) = pounds per day</p>								

SOx Emissions
Excavation and Fill Replacement (10 days)

Equipment	Qty	horsepower	Fuel type	Usage hrs/day	Emission Factors (lbs/ hp hr) SOx	Load Factor	# of days	Emissions (pounds per day)
								SOx
Dozer	0	356	diesel	8	0.002	0.59	0	0.0
Front-end loader	1	147	diesel	8	0.002	0.54	5	1.3
Excavator/trencher	1	58	diesel	8	0.002	0.695	5	0.6
Dump Trucks	1	161	diesel	8	0.002	0.62	2	1.6
Concrete Truck	1	161	diesel	8	0.002	0.62	3	1.6
Delivery Truck	1	161	diesel	4	0.002	0.62	10	0.8
Water Truck	0	161	diesel	2	0.002	0.62	0	0.0
TOTAL	5							5.9

Traffic Control and Management Activities (360 days)

Equipment	Qty	miles traveled	Fuel type	Usage hrs/day	Emission Factors (lbs/ hp hr) SOx	# of days	Emissions (pounds per day)
							SOx
Contractor Pickup Trucks	1	20	gasoline	8	0.00001	360	0.00
Contractor Staff	4	20	gasoline	8	0.00001	360	0.01
District Pickup Trucks	2	20	gasoline	4	0.00001	360	0.00
TOTAL	7						0.01

The emission factor units are in pounds per horsepower-hour; HP assumptions are based on South Coast CEQA Handbook Table A9-8-C&D for "Other" Construction Equipment".

The formula is: (# of equipment x 8 hrs/day x hp x load factor x lbs/hp-hr) = pounds per day

Fugitive Dust Generated From Grading Activities Without Controls

	Max acres to be graded in one day (acres)	Emission Factor (lb/day/acre)*	PM₁₀ Emissions (pounds per day)
Graded surface	0	55	0.0

*Value from screening table 9-2 in CEQA Handbook

Source: SCAQMD CEQA Handbook, 1993

Assume max of 2 acre graded per day from project description

FUGITIVE PM₁₀ EMISSION FACTORS – From Vehicle Travel

(I) POTENTIAL SOURCES:

- (1) Vehicle Travel on Unpaved Surfaces.
- (2) Vehicle Travel on Paved Roads.

(II) EMISSION FACTORS AND ASSUMPTIONS:

- (1) Vehicle Travel on Unpaved Roads.

Emission Factor (SCAQMD Table A9-9-D): (reference 1)

$$EF(1) = 2.1 (G/12) (H/30) [(J/3)^{0.7}] [(I/4)^{0.5}] [(365-K)/365] \text{ lb/vehicle mile traveled (vmt)}$$

where:

- G = Silt Loading (%): 6 (reference 1)
- H = Mean Vehicle Speed (mph): 15 (reference 1)
- J = Mean Vehicle Weight (tons): (reference 1)
- I = Number of Wheels: (reference 1)
- K = Number of Days > 0.01 in. Precipitation: 34 Table A9-9-D-4 average for year, South Coast

Vehicles - Heavy Duty Trucks		
Parameter	Loaded	Unloaded
J	11	8
I	8	8
PM10 Emission Rate lb/VMT	1.67	1.34

Vehicles - Light Duty Autos/Trucks		
Parameter	Loaded	Unloaded
J		1
I		4
PM10 Emission Rate lb/VMT		0.220

Estimated Daily PM10	miles/day	Estimated Emission Rate (lbs/day)	
		Loaded	Unloaded
Heavy Duty Trucks			
	1	1.67	1.34
Average		1.51	
Light Duty Autos/Trucks	1		0.22

Assume truck trips half loaded, half unloaded

Assume light duty vehicles unloaded

FUGITIVE PM₁₀ EMISSION FACTORS – From Vehicle Travel

- (2) Passenger Vehicle Travel on Paved Highways.

Emission Factor (SCAQMD Table A9-9-B):

$$EF(2) = V \times G \text{ lb}$$

V = Vehicle Miles Traveled in one day

G = 0.0064 lb/VMT

Estimated Emission Rate	
Worker Commute Trips	
V =	20
G =	0.0064
EF =	0.128 pounds per day

EF multiplied by number of trips per day for each activity

PM for one worker vehicle must multiply this number by the number of workers

Number of Construction Workers

Activity	Workers (Total)	
Excavation and Facility Installation (10 days)	5	60
Management Activities (360 days)	3	80
Contractor Staff	9	30
Total	17	

**Number of Trucks
(delivery trucks, water trucks, and pickup trucks)**

Activity	Workers (Total)	
Excavation and Facility Installation (10 days)	2	
Management Activities (360 days)	3	
Contractor Staff	4	
Total	9	

Vehicle Emissions

Equation: Emissions (pounds per day) = N x TL x EF

where N = number of trips, TL = trip length (miles/day), and EF = emission factor (pounds per mile)

2004		2004	
Passenger Vehicles (pounds/mile)		Delivery Trucks (pounds/mile)	
CO	0.016559	CO	0.02309
NOx	0.0018	NOx	0.029607
ROG	0.001771	ROG	0.003148
SOx	0.00001	SOx	0.000243
PM10	0.000079	PM10	0.000519

Source: SCAQMD website, CEQA guidance, emission factors from EMFAC2002
<http://www.aqmd.gov/ceqa/hdbk.html>

Emissions: for one trip	Construction Workers		Delivery Trucks	
	N	TL	N	TL
	1	20	1	20
	2004	Emissions lb/day	2004	Emissions lb/day
CO		0.33	CO	0.46
NOx		0.04	NOx	0.59
ROG		0.04	ROG	0.06
SOx		0.0002	SOx	0.0049
PM10		0.0016	PM10	0.0104

Assume each worker makes one trip to construction site and the average trip length is 15 miles one way or 30 miles per day.

Emission Factors from California Air Resources Board OFFROAD Model

25-50 hp		g/hp hr			
Calendar Yr		ROG	CO	NOx	PM
2004		0.64	3.27	5.10	0.43
		lb/hp hr			
		0.0014	0.0072	0.0112	0.0009

51-120 hp		g/hp hr			
Calendar Yr		ROG	CO	NOx	PM
2004		0.46	3.23	5.64	0.39
		lb/hp hr			
		0.0010	0.0071	0.0124	0.0009

121-175 hp		g/hp hr			
Calendar Yr		ROG	CO	NOx	PM
2004		0.22	2.70	4.72	0.19
		lb/hp hr			
		0.0005	0.0060	0.0104	0.0004

176-250 hp		g/hp hr			
Calendar Yr		ROG	CO	NOx	PM
2004		0.14	0.92	4.58	0.11
		lb/hp hr			
		0.0003	0.0020	0.0101	0.0002

251-500 hp		g/hp hr			
Calendar Yr		ROG	CO	NOx	PM
2004		0.12	0.92	4.29	0.11
		lb/hp hr			
		0.0003	0.0020	0.0095	0.0002