Draft

Environmental Impact Report

Rehabilitation of Western Regional Sewers
Project No. 3-64

SCH # 2015111077

Appendices

Prepared for

Orange County Sanitation District

October 2016

Prepared by

JACOBS

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DRAFT

ENVIRONMENTAL IMPACT REPORT FOR

ORANGE COUNTY SANITATION DISTRICT

REHABILITATION OF WESTERN REGIONAL SEWERS

PROJECT NO. 3-64

APPENDIX A

NOTICE OF PREPARATION, INITIAL STUDY, AND COMMENT LETTERS

A-1: NOTICE OF PREPARATION

A-2: INITIAL STUDY

A-3: COMMENT LETTERS

OCTOBER 2016

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APPENDIX A-1

NOTICE OF PREPARATION

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NOTICE OF PREPARATION

DATE: November 30, 2015

TO: Responsible and Trustee Agencies and Interested Parties

SUBJECT: Notice of Preparation of an Environmental Impact Report for Rehabilitation of Western Regional Sewers, Project No. 3-64

R**EVIEW PERIOD**: The Orange County Sanitation District (OCSD) has prepared an Initial Study for the Rehabilitation of Western Regional Sewers project and has determined that an Environmental Impact Report (EIR) is necessary. Pursuant to Public Resource Code Section 21165 and the California Environmental Quality Act Guidelines (CEQA Guidelines) Section 15050, the Orange County Sanitation District is the Lead Agency for the project. The purpose of this notice is (1) to serve as a Notice of Preparation (NOP) of an EIR pursuant to the CEQA Guidelines Section 15082, (2) to advise and solicit comments and suggestions regarding the scope and content of the EIR to be prepared for the proposed project, and (3) to provide notice of the public scoping meeting. The Initial Study/NOP is available for public viewing at the OCSD website at www.ocsd.com. Copies are also available for public viewing at the following locations:

- Orange County Sanitation District, Administrative Building – 10844 Ellis Avenue, Fountain Valley, CA
- La Palma Library – 7842 Walker Street, La Palma, CA
- Cypress Library – 5331 Orange Avenue, Cypress , CA
- Los Alamitos/Rossmoor Library – 12700 Montecito Road, Seal Beach, CA
- Seal Beach/Mary Wilson Library – 707 Electric Avenue, Seal Beach, CA
- Buena Park Library – 7150 La Palma Ave, Buena Park, CA
- Anaheim/Haskett Public Library – 2650 W. Broadway, Anaheim, CA

The document is also available on our website at http://www.ocsd.com/opengov/eir-documents/-folder-767

SOLICITATION OF EIR SCOPE AND CONTENT COMMENTS: OCSD is soliciting views of interested persons and agencies as to the scope and content of the environmental information to be studied in the EIR. In accordance with CEQA Guidelines, agencies are requested to review the proposed project and provide comments on environmental issues related to the statutory responsibilities of the agency. In accordance with the time limits mandated by CEQA Guidelines, responses to the Notice of Preparation (NOP) must be received by OCSD no later than 30 days after this IS/NOP is posted by the State Clearinghouse. We request that comments on the IS/NOP be received no later than **December 29, 2015**. Written comments can be sent via email to CEQA@ocsd.com or via mail to:

Daisy Covarrubias, Senior Staff Analyst
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708-7018

PUBLIC SCOPING MEETING:

A public scoping meeting will be held to receive public comments on the proposed project.

DATE: December 16, 2015

TIME: 10 a.m.

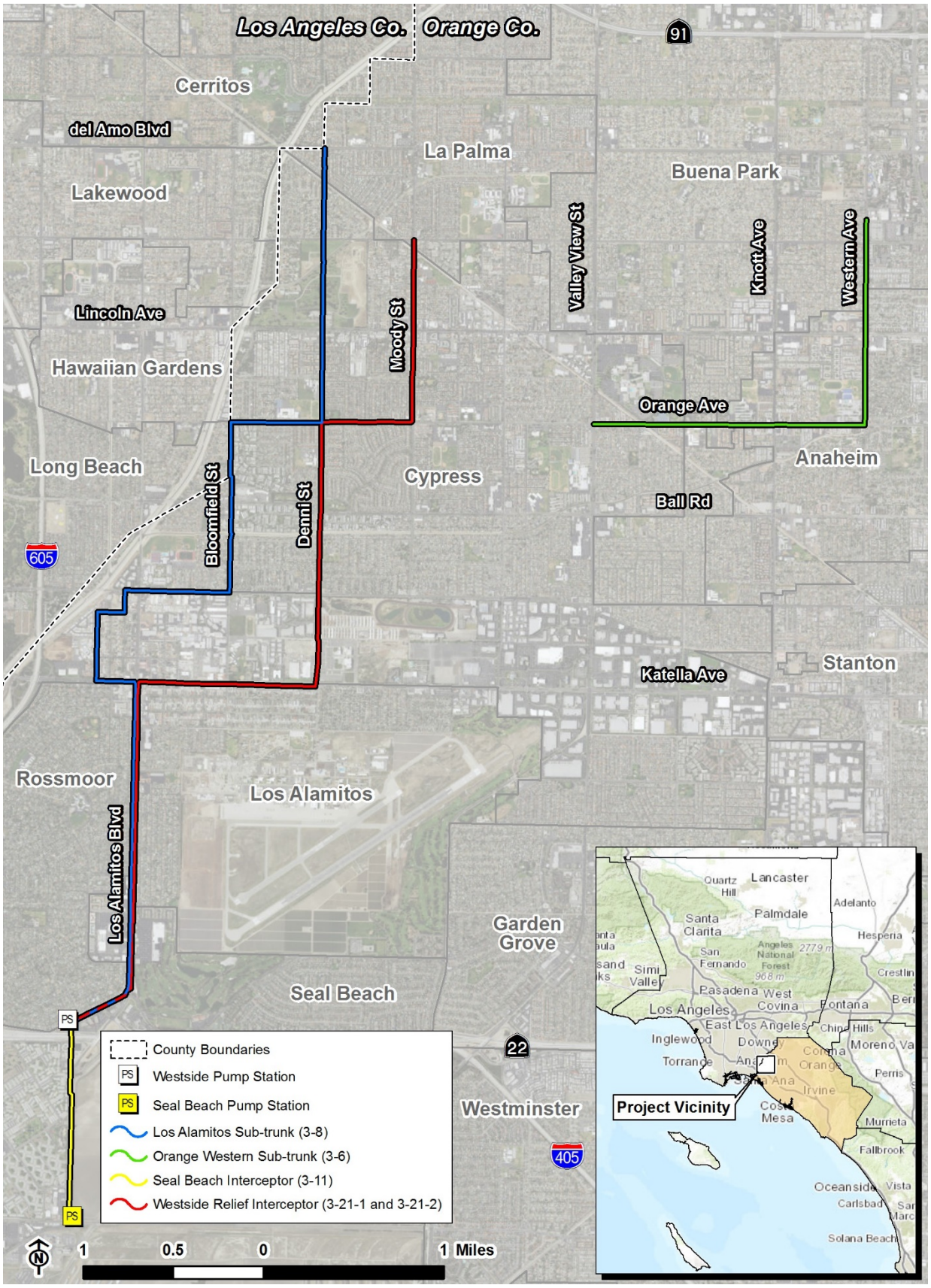
LOCATION: Cypress Community Center (5700 Orange Avenue, Cypress CA, 90630)

PROJECT DESCRIPTION: OCSD is proposing to rehabilitate and/or replace the entire length of the Orange Western Sub-trunk, Los Alamitos Sub-trunk, the Westside Relief Interceptor, and the Seal Beach Boulevard Interceptor. These sewer lines are located in the westernmost portion of the OCSD service area (see enclosed map). Collectively, the sewer lines convey sewage flows from the Cities of Anaheim, Buena Park, Cypress, Los Alamitos, La Palma, and Seal Beach and Rossmoor in unincorporated Orange County. The project also proposes complete replacement of the Westside Pump Station wet well and replacement or rehabilitation of the existing force main and odor control facilities.

PROJECT LOCATION: The project is located primarily within public rights-of-way (e.g., streets, and OCSD easements) in the Cities of La Palma (Denni Street and Moody Street), Buena Park (Western Avenue and Orange Avenue), Cypress (Denni Street, Guardian Drive, Moody Street, Orange Avenue, Bloomfield Street, West Cerritos Avenue, Chestnut Street, Sausalito Street, Oak Street, and Katella Avenue), Anaheim (Western Avenue and Orange Avenue), Los Alamitos (Katella Avenue and Los Alamitos/Seal Beach Boulevard), Seal Beach (Seal Beach Boulevard and Beverly Manor Road), and Rossmoor (unincorporated County of Orange). The Westside Pump Station is located at 3112 Yellowtail Drive.

ENVIRONMENTAL ISSUES: OCSD anticipates that the following environmental topic areas will be addressed in the EIR, as described within the Initial Study: Aesthetics, Air Quality, Biological Resources, Cultural Resources, Geology and Soils, Green House Gas Emissions, Hazards and Hazardous Materials, Land Use and Planning, Noise, Public Services, Recreation, Transportation/Traffic, and Mandatory Findings of Significance.

Rehabilitation of Western Regional Sewers, Project No. 3-64



APPENDIX A-2

INITIAL STUDY

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Initial Study

Rehabilitation of Western Regional Sewers, Project No. 3-64

Prepared for

Orange County Sanitation District

Prepared by

JACOBS

November 2015

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Appendix A: Project Area

Figures

Tables

Acronyms and Abbreviations

AELUP	Airport Environs Land use Plan
APE	Area of Potential Effects
AQMP	Air Quality Management Plan
BMP	best management practice
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CEQA	California Environmental Quality Act
CMP	congestion management program
CNDDB	California Natural Diversity Database
CO	carbon monoxide
CRHR	California Register of Historical Resources
DAMP	County of Orange Drainage Area Management Plan
EIR	Environmental Impact Report
GHG	greenhouse gas
IS	Initial Study
lb/day	pounds per day
NAAQS	National Ambient Air Quality Standards
NO_X	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRHP	National Register of Historic Places
OCFCD	Orange County Flood Control District
OCTA	Orange County Transportation Authority
OCWD	Orange County Water District
PM_{10}	particulate matter less than 10 microns
$PM_{2.5}$	particulate matter less than 2.5 microns
Project	Rehabilitation of Western Regional Sewers
RWQCB	Regional Water Quality Control Board

OCSD	Orange County Sanitation District
ROC	reactive organic compounds
SCAB	South Coast Air Basin
SCAQMD	South Coast Air Quality Management District
SO_X	sulfur oxides
SWPPP	Storm Water Pollution Prevention Plan
UBC	Uniform Building Code
USACE	U.S. Army Corps of Engineers

1.0 Project Information

1.1 Introduction

This Initial Study (IS) has been prepared in accordance with the California Environmental Quality Act (CEQA) guidelines and regulations. The Initial Study examines the potential for direct, indirect, growth-inducing, irreversible, short- and long-term, and cumulative environmental effects associated with the Rehabilitation of Western Regional Sewers Project (proposed Project).

1.2 Purpose of the Initial Study

In accordance with Section 15367 of the California Code of Regulations, the Orange County Sanitation District (OCSD) is identified as the Lead Agency for the proposed Project. Pursuant to Section 15063(a) of the CEQA Guidelines, OCSD 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), (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 could be required from OCSD or other Responsible Agencies.

1.3 Statutory Requirements and Authority

In the State of California CEQA Guidelines, Section 15063 identifies 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 proposed 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 some evidence exists 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(s) of the person or persons who prepared or participated in the preparation of the Initial Study.

1.4 Permits and Approvals

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

Table 1-1: Project Permits and Approvals

Agency Name	Permit or Approval	Need for Permit
Caltrans District 12	Encroachment Permit/Approval of Traffic Control Plan	Work on Seal Beach Interceptor within Interstate 405 (I-405) right-of-way.
State Water Board	Construction General Permit ORDER NO. 2012-0006-DWQ NPDES NO. CAS000002	The project will result in soil disturbance of more than one acre.
Regional Water Quality Control Board	Clean Water Act Section 402 Permit	If work requires a Waste Discharge Report.
South Coast Air Quality Management District	Permit to Construct	Required if the air scrubber is selected for the Westside Pump Station
Orange County Flood Control District	Encroachment Permit	Encroachment within Orange County Flood Control District (OCFCD) right-of-way beneath channels.
Orange County Transportation Authority	Encroachment Permit	Encroachment within in Old Pacific Electric Rail right-of-way
Orange County Public Works	Building Permit/Encroachment Permit/Approval of Traffic Control Plan	Proposed improvements at West Side Pump Station located within unincorporated Rossmoor.
City of La Palma	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.
City of Cypress	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.
City of Buena Park	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.
City of Anaheim	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.
City of Los Alamitos	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.
City of Seal Beach	Encroachment Permit/Approval of Traffic Control Plan	Encroachment within city streets.

1.5 Agency Consultation and Coordination

The agencies listed in Table 1-1 could require OCSD to obtain approvals for the proposed Project. Coordination with other agencies may be required to determine the specific nature of any future permits or approvals. Agencies will be notified pursuant to CEQA guidelines; any subsequent comments will be considered accordingly. In addition, this document is intended to provide agencies and the general

public with an environmental basis pursuant to 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 the jurisdiction of the agency.

2.0 Project Description

2.1 Project Background and Location

OCSD is proposing to rehabilitate and/or replace the entire length of the Orange Western Sub-trunk, Los Alamitos Sub-trunk, the Westside Relief Interceptor, and the Seal Beach Boulevard Interceptor. These sewer lines are located in the westernmost portion of the OCSD service area and are referred to collectively as the Western Regional Sewers throughout this document (proposed Project; See Figure 2-1). Collectively, the Los Alamitos Sub-trunk, the Westside Relief Interceptor, and the Seal Beach Boulevard Interceptor convey sewage flows from the City of Seal Beach, the unincorporated portion of Orange County known as Rossmoor, the City of Los Alamitos, the City of Cypress, the City of La Palma, and other areas in the vicinity to the Westside Pump Station. The Orange Western Sub-trunk conveys flows from the cities of Cypress, Buena Park, and Anaheim to the Miller Holder Trunk and the Knott Interceptor. The Orange Western Sub-trunk is not tributary to the Westside Pump Station.

The proposed Project also proposes complete replacement of the Westside Pump Station wet well, replacement or rehabilitation of the existing force main and installation of either an air jumper or an air scrubber to improve odor control. The size and location of each pipeline is discussed further below. The proposed Project Study Area (streets and easements containing existing pipelines) and location of the existing pipelines are presented in Appendix A.

Orange Western Sub-trunk: The Orange Western Sub-trunk (Figure 2-1), constructed in 1959, is 13,940 feet long and has 38 manholes. The pipe is 21 inches in diameter. The Orange Western Sub-trunk consists of two segments. The first segment begins just north of the intersection of Crescent Avenue and Western Avenue in the City of Buena Park. The pipeline continues south on Western Avenue and turns west on West Orange Avenue before connecting to the Knott Interceptor. The second segment continues west on West Orange Avenue from the Knott Avenue intersection to the Miller Holder Trunk Sewer at the Valley View Street intersection.

Los Alamitos Sub-trunk: Los Alamitos Sub-trunk (Figure 2-1), constructed in 1959, is 34,620 feet long and has 90 manholes. The pipe diameter ranges in size from 18 to 30 inches. Approximately 15,540 feet is believed to be under capacity and will require increasing the size of the pipe (Figure 2-2). The Los Alamitos Sub-trunk is within the following cities: La Palma (La Palma Avenue and Denni Street), Cypress (Denni Street, Guardian Drive, Orange Avenue, Bloomfield Avenue, and Bloomfield Street), Los Alamitos (Bloomfield Street, W. Cerritos Avenue, Chestnut Street, Sausalito Street Oak Street, Katella Avenue, and Los Alamitos Boulevard) Seal Beach (Seal Beach Boulevard and Old Ranch Parkway) and Rossmoor (3112 Yellowtail Drive).

Westside Relief Interceptor: The Westside Relief Interceptor (Figure 2-1) was constructed under two contracts in 1959 and 1976. This line is approximately 32,100 feet long with 81 manholes. Pipe size ranges from 15 to 39 inches in diameter. Approximately 16,010 feet is believed to be under capacity and will require increasing the size of the pipe (Figure 2-2). The Westside Relief Interceptor is within the

following cities: La Palma (Crescent Avenue, Moody Street), Cypress (Moody Street, Orange Avenue, Denni Street), Los Alamitos (Denni Street, Katella Avenue, and Los Alamitos Boulevard), and Seal Beach (Seal Beach Boulevard and Old Ranch Parkway). The Los Alamitos Sub-trunk and Westside Relief Interceptor are physically connected at the intersection of Orange Avenue and Denni Street by Diversion No. 65.

Seal Beach Interceptor: Seal Beach Interceptor (Figure 2-1), constructed in 1969, is 5,530 feet long and has 8 manholes. The pipe is 51 inches in diameter. The Seal Beach Interceptor begins just south of the Westside Pump Station at the end of Old Ranch Parkway in the city of Seal Beach. The pipeline continues south across the Interstate 405 (I-405) freeway right-of-way and in Beverly Manor Road south of the I-405 freeway until merging with Seal Beach Boulevard. The pipeline then continues south in Seal Beach Boulevard until it reaches the Seal Beach Pump Station located at the intersection of Seal Beach Boulevard and Westminster Boulevard. The Seal Beach Naval Weapons Station extends to the centerline of Seal Beach Boulevard. Approximately 3,500 feet of Seal Beach Interceptor is on easement on Navy land.

Westside Pump Station: The pump station underwent a major reconstruction in 2008 that involved the replacement of the building and pumps, rehabilitation of the wet well, installation of new equipment, and the addition of an underground access structure. During this project, extensive degradation of the wet well was discovered. Repairs were made to put the wet well back in service and intended to extend the life of the wet well by another 10 to 15 years. The pump station receives sewage flows from the Los Alamitos Sub-trunk, Leisure World, and the Rossmoor/Los Alamitos area. The flow from the West Side Relief Interceptor currently bypasses the Westside Pump Station and flows directly into the Seal Beach Interceptor. The pump station discharges into the Seal Beach Interceptor via a 150-foot-long, 20-inch-diameter force main that was installed in 1995. The Seal Beach Interceptor conveys all the flow from the Westside Pump Station to the Seal Beach Pump Station.

2.2 Project Need

The Western Regional Sewer pipelines have exceeded their functional life and have developed deficiencies that allow intrusion of groundwater and, in some cases, have developed hard calcium deposits which make the pipe hard to clean and impede the wastewater flow. Also, portions of both the Los Alamitos Sub-trunk (15,540 linear feet) and Westside Relief Interceptor (16,010 linear feet) are considered capacity deficient, are unable to handle projected 2040 wet weather flows, and need to be upsized to alleviate existing surcharging (Figure 2-2).

The Westside Pump Station wet well was repaired in 2008 to extend its serviceable life. The repairs to the wet well are nearing the end of their expected life, and the wet well needs to be replaced in order to be fully improved.

2.3 Project Purpose

The purpose of the proposed Project is to increase the life of a portion of the assets within the Western Region of OCSD's service area by another 50 years and ensure that the 2040 wet weather peak flows will be adequately contained through means that minimize impacts to the environment and maintain OCSD's policy of being a good neighbor. The proposed Project would eliminate existing surcharging and groundwater intrusion and extend the service life of the Orange Western Sub-Trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, and the Seal Beach Interceptor lines (Western Regional Sewers) by either rehabilitation of the existing lines or replacement of the lines on a new alignment within the same streets.

Without the Rehabilitation of the Western Regional Sewers and Westside Pumps Station improvements, groundwater intrusion and surcharging would continue and the wet well would continue to degrade. Additionally, OCSD would not meet requirements to accommodate 2040 wet weather flows, potentially resulting in unplanned sanitary sewer releases to the environment.

2.4 Project Description

The proposed Project would rehabilitate and/or replace the Orange Western Sub-Trunk, the Los Alamitos Sub-trunk, the Westside Relief Interceptor, and the Seal Beach Boulevard Interceptor pipelines (Figure 2-2); reconstruct the Westside Pump Station wet well; and add either an air scrubber or air jumper line at the Westside Pump Station. Improvements would generally be completed within the same public rights-of-way or easements as the existing pipelines and on existing OCSD property. Additionally, the Western Regional Sewers cross perpendicular to four concrete-lined OCFCD drainage channels: Bixby Channel, Federal Storm Channel, Carbon Creek, and Moody Creek. Where replacement is required, a new pipeline would typically be installed on a new alignment within the same roadway utilizing open-cut construction. Temporary sewage bypass would also be required when connecting the new pipe to the system. Trenchless methods such as pipe bursting, micro tunneling or directional drilling could also be utilized. Trenchless technologies are considered to have fewer impacts than open-cut, resulting primarily in shorter construction duration and fewer pieces of construction equipment, which in turn result in fewer impacts. Trenchless construction methods would be utilized at the following locations: between the Westside Pump Station and Seal Beach Boulevard, at all Orange County Flood Control facilities or other drainage channels, and near Willow Street/Denni Street as well as beneath Denni Street Park. Where rehabilitation is required, the existing pipeline would generally be rehabilitated in place utilizing the cured-in-place pipe (CIPP) method. The CIPP method is a trenchless process utilized to reline the existing pipelines. Rehabilitation would also include temporary sewage bypass to keep the system operational.

Subsequent to installation of the new pipe or rehabilitation of existing pipe, local and permitted connections to the mainline would be reconnected. In locations where there are non-permitted connections or locations where private laterals are connected directly to OCSD, a new local connection/system would be constructed and reconnected in accordance with OCSD policy, which requires private laterals/connections to be connected to a city- or county-owned manhole prior to being

connected to an OCSD manhole or pipeline. Subsequent to construction of the new pipe, the existing pipe and manholes will be abandoned in place and filled with concrete slurry. At this time, all areas identified for replacement that are not specifically identified for trenchless construction are evaluated in this IS as open-cut replacement. This represents a worst case scenario for environmental impacts for the proposed Project and for disclosure and consideration of impacts by the public and interested parties. Areas anticipated for both replacement and rehabilitation are shown on Figure 2-2.

In addition to pipeline and manhole rehabilitation and/or replacement, the proposed Project also includes rehabilitation/replacement of the Westside Pump Station force main, reconstruction of the Westside Pump Station wet well, and construction of either a two-stage biological/chemical air scrubber that would be located in an addition to the existing equipment building or an air jumper from the wet well to the downstream manhole. The air jumper line would be underground.

Figure 2-1: Project Area Map

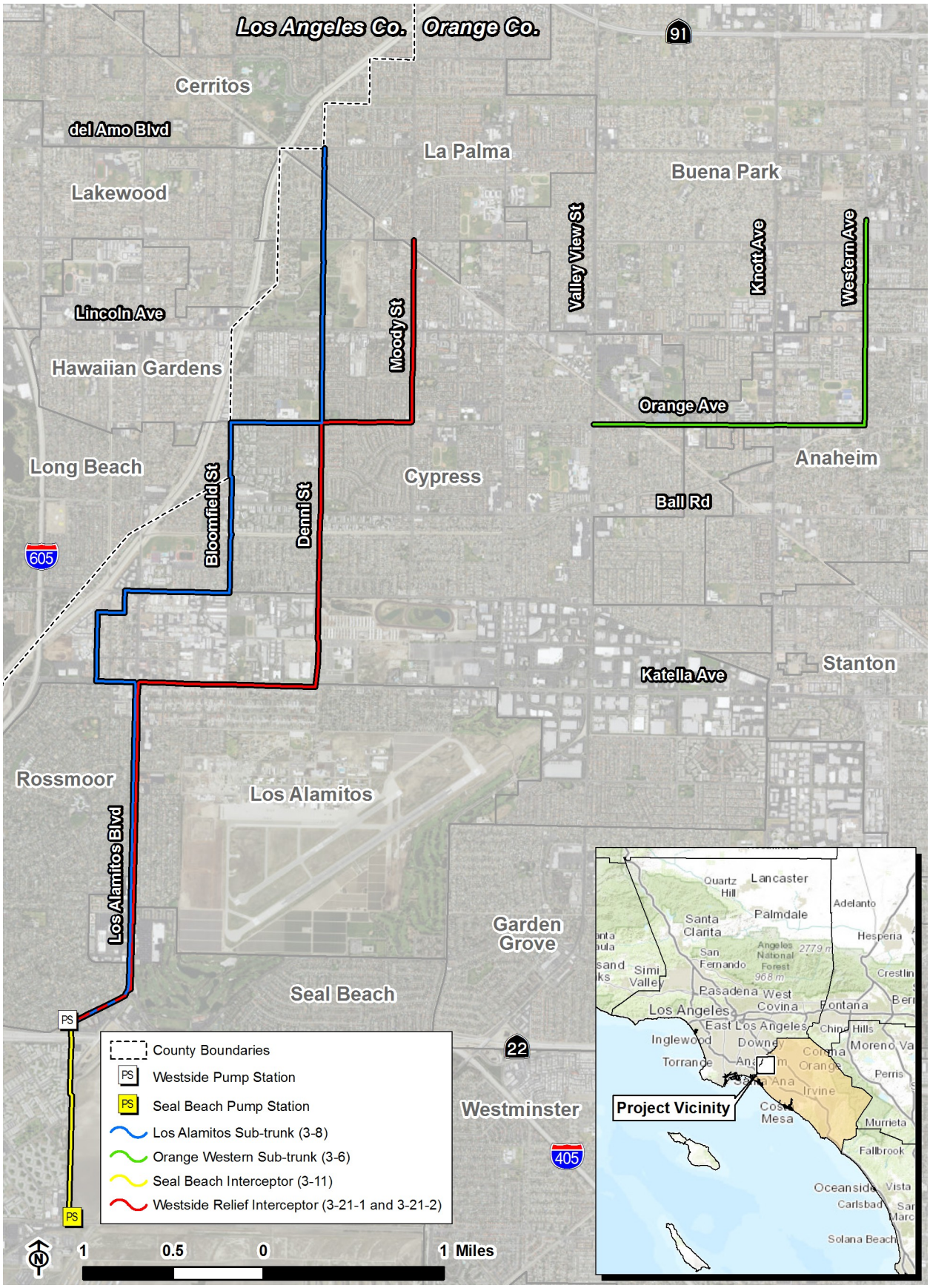
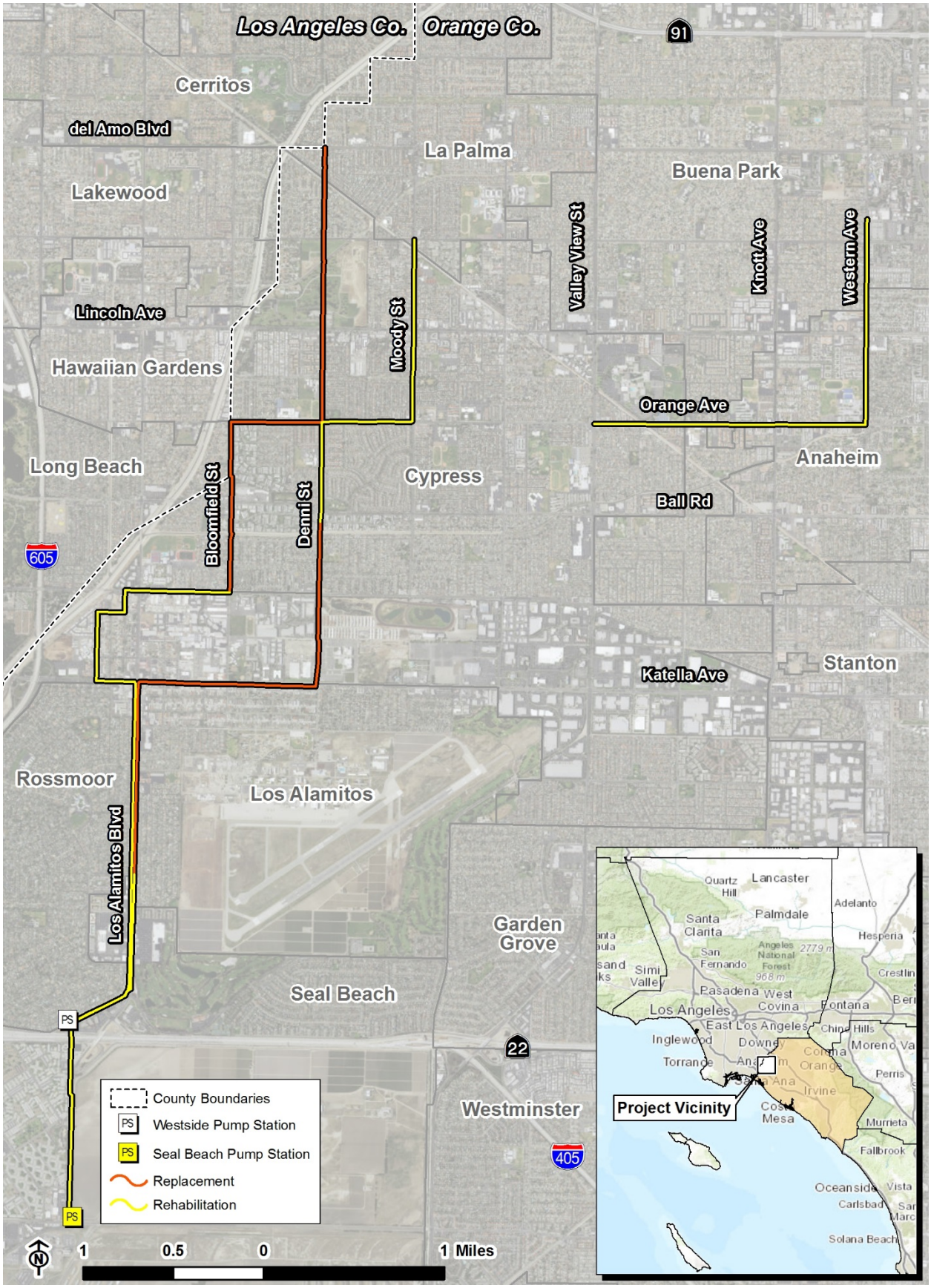


Figure 2-2: Proposed Replacement and Rehabilitation Locations



3.0 Environmental Checklist Form

3.1 Project Description and Background

1. **Project Title**

   Rehabilitation of Western Regional Sewers, Project No. 3-64

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

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

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

   Daisy Covarrubias, (714) 593-7119

4. **Project Location (see Figure 2-1):**

   The project is located primarily within public rights-of-way (e.g., streets and easements) in the cities of La Palma (Denni Street and Moody Street), Buena Park (Western Avenue and Orange Avenue), Cypress (Denni Street, Guardian Drive, Moody Street, Orange Avenue, Bloomfield Street, West Cerritos Avenue, Chestnut Street, Sausalito Street, Oak Street, and Katella Avenue), Anaheim (Western Avenue and Orange Avenue), Los Alamitos (Katella Avenue and Los Alamitos/Seal Beach Boulevard), Seal Beach (Seal Beach Boulevard and Beverly Manor Road), and Rossmoor (unincorporated County of Orange). The Westside Pump Station is located at 3112 Yellowtail Drive.

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

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

6. **General Plan Designation:**

   - Anaheim: Transportation
   - Buena Park: Transportation
   - Cypress: Transportation, Medium-Density Residential, Cemetery
   - La Palma: Transportation, Open Space/Recreation
   - Los Alamitos: Transportation, Single-Family Residential
   - Seal Beach: Transportation
   - Orange County: Single-Family Residential

7. **Zoning**: The proposed Project area is within urban, developed areas within existing public rights-of-way, OCSD easements, or OCSD property. Zoning within the proposed Project area for each potentially affected jurisdiction is provided below. The proposed Project would be consistent with existing zoning and/or other land use controls (e.g., Los Alamitos Army Air Field Airport Environs Land Use Plan).

- Anaheim: Transportation
- Buena Park: Transportation
- Cypress: Transportation, Residential Single-Family Zone, Public and Semi-Public Zone
- La Palma: Transportation, Open Space/Recreation
- Los Alamitos: Transportation, Unknown
- Seal Beach: Transportation, General Commercial
- Orange County: Suburban Residential

8. Description of Project:

OCSD is proposing to rehabilitate and/or replace entire lengths of the Orange Western Sub-Trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, and the Seal Beach Interceptor (see Figure 2-1). In addition to pipeline and manhole replacement and/or rehabilitation, the proposed Project also includes rehabilitation/replacement of the Westside Pump Station force main, reconstruction of the Westside Pump Station wet well, and construction of either a two-stage biological/chemical air scrubber that would be located within an addition to the existing equipment building or an air jumper between the wet well and the downstream manhole.

9. Surrounding Land Uses and Setting:

The proposed Project is nearly exclusively located within and underneath arterial streets. The proposed Project crosses between private properties within an easement along the Los Alamitos sub-trunk near the intersection of Willow Drive and Denni Street. It also crosses beneath Denni Street Park, beneath Orange County Flood Control District (OCFCD) channels (Bixby Channel, Federal Storm Channel, Carbon Creek, and Moody Creek) and through Forest Lawn Memorial Park Cemetery (Forest Lawn Cemetery) along Guardian Drive. Surrounding land uses include single- and multiple-family residences; schools; parks; and neighborhood-scale commercial, public and quasi-public, and industrial uses (see Appendix A).

10. Other Public Agencies Whose Approval is Required:

OCSD could be required to obtain approval from the California Department of Transportation (Caltrans); Regional Water Quality Control Board (RWQCB); South Coast Air Quality Management District; Orange County Flood Control District (OCFCD); Orange County Transportation Authority (OCTA); County of Orange; and the cities of Buena Park, Anaheim, Cypress, La Palma, Los Alamitos, and Seal Beach.

11. Environmental Factors Potentially Affected:

The environmental factors checked below potentially would be affected by the proposed Project, involving at least one impact that is a "Potentially Significant Impact," as indicated by the checklist on the following pages. Please see the Environmental Checklist for additional information.

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

3.2 Determination

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: Carla Dillon **Date:** 11-30-15

Printed name: Carla Dillon **For:** OCSD

OCSD will host a public scoping meeting on December 16, 2015, at 10 a.m. at the Cypress Community Center (5700 Orange Avenue, Cypress CA, 90630) to solicit comments on the proposed Project. You may provide comments during the scoping meeting or in writing. Written comments will be considered during the preparation of the Project EIR. **All comments must be received by December 29, 2015.**
Submit comments via postal mail or email to:

Daisy Covarrubias, Senior Staff Analyst
Orange County Sanitation District, Planning Division
10844 Ellis Ave, Fountain Valley, CA 92708-7018
Email: CEQA@ocsd.com

3.3 Evaluation of Environmental Impacts

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

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

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

4) "Negative Declaration: Less Than Significant with Mitigation 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 this is 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.

3.4 CEQA Checklist

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
I.	**AESTHETICS:** Would the project:				
a)	Have a substantial adverse effect on a scenic vista	☐	☐	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway	☐	☐	☒	☐
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒	☐	☐
d)	Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☐	☒	☐	☐
II.	**AGRICULTURE AND FOREST RESOURCES:** In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state's inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment Project; and the forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board. Would the project:				
a)	Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	☐	☐	☐	☒
b)	Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
c)	Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☐	☐	☒
d)	Result in the loss of forest land or conversion of forest land to non-forest use?	☐	☐	☐	☒
e)	Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use or conversion of forest land to non-forest use?	☐	☐	☐	☒
III.	**AIR QUALITY:** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. Would the project:				
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
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)?	☒	☐	☐	☐
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒	☐	☐
e)	Create objectionable odors affecting a substantial number of people?	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
IV.	**BIOLOGICAL RESOURCES:** Would the project:				
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or US Fish and Wildlife Service?	☐	☐	☐	☒
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?	☐	☐	☒	☐
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☐	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒	☐	☐
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	☒	☐
V.	**CULTURAL RESOURCES:** Would the project:				
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☒	☐
b)	Cause a substantial adverse change in the significance of an archaeological	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
	resource pursuant to §15064.5?				
c)	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?	☐	☒	☐	☐
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?	☐	☐	☒	☐
ii)	Strong seismic ground shaking?	☐	☐	☒	☐
iii)	Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐
iv)	Landslides?	☐	☐	☒	☐
b)	Result in substantial soil erosion or the loss of topsoil?	☐	☐	☒	☐
c)	Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?	☐	☐	☒	☐
d)	Be located on expansive soil (Table 18-1-B of the Uniform Building Code), creating substantial risks to life or property?	☐	☐	☒	☐
e)	Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
VII.	**GREENHOUSE GAS EMISSIONS:** Would the project:				
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☐	☒	☐
b)	Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing greenhouse gas emissions?	☐	☐	☒	☐
VIII.	**HAZARDS AND HAZARDOUS MATERIALS:** Would the project:				
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☐	☒	☐
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☐	☒	☐
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒	☐	☐
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒	☐	☐
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard 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?	☐	☐	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
	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?	☐	☐	☐	☒
IX.	**HYDROLOGY AND WATER QUALITY:** Would the project:				
a)	Violate 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 preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
f)	Otherwise substantially degrade water quality?	☐	☐	☒	☐

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
h)	Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☐	☐	☐	☒
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?	☐	☐	☐	☒
j)	Inundation by seiche, tsunami, or mudflow	☐	☐	☐	☒
X.	**LAND USE AND PLANNING:** Would the project:				
a)	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?	☒	☐	☐	☐
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☒	☐
XI.	**MINERAL RESOURCES:** Would the project:				
a)	Result in the loss of availability of a known mineral resource 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?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XII.	**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?	☒	☐	☐	☐
b)	Generation of excessive groundborne vibration or groundborne noise levels?	☐	☒	☐	☐
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒	☐	☐
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
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?	☐	☐	☒	☐
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?	☐	☐	☐	☒
XIII.	**POPULATION AND HOUSING:** Would the project:				
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☐	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
XIV.	**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?	☐	☒	☐	☐
XV.	**RECREATION:**				
a)	Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☒	☐	☐
b)	Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☐	☐	☒
XVI.	**TRANSPORTATION/TRAFFIC:** Would the project:				
a)	Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance a circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☒	☐	☐

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
b)	Conflict with an applicable congestion management program, including, but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
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?	☐	☐	☐	☒
d)	Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☐	☐	☒
e)	Result in inadequate emergency access?	☒	☐	☐	☐
f)	Conflict with adopted policies, plans or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☐	☒	☐
XVII.	**UTILITIES AND SERVICE SYSTEMS:** Would the project:				
a)	Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☐	☐	☒
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?	☐	☐	☒	☐
c)	Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☐	☐	☒
d)	Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☐	☐	☒

		Potentially Significant Impact	Less Than Significant with Mitigation	Less Than Significant Impact	No Impact
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?	☐	☐	☐	☒
f)	Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☐	☒	☐
g)	Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☐	☒	☐
XVIII.	**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, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒	☐	☐
b)	Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☐	☒	☐
c)	Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

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.

4.1 Aesthetics

Would the project:

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

No Impact – No scenic vistas are located within the vicinity of the proposed Project. All construction activities will be temporary and occur within urban, developed areas within existing public rights-of-way or OCSD easements. Operation will not be an impact because improvements will be subterranean or part of the existing pump station. This issue will not be addressed in the EIR.

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

Less Than Significant – The nearest State scenic highway is Pacific Coast Highway, a State scenic highway designated by the California Department of Transportation (Caltrans 2015). Pacific Coast Highway is located approximately 0.75 miles southwest of the Seal Beach Pump Station. The proposed Project would not affect Pacific Coast Highway. To accommodate construction within Forest Lawn Cemetery, trimming and/or removal of trees and shrubs would be required. In addition several areas (e.g., Moody Street, Katella Avenue, Los Alamitos Boulevard, and Seal Beach Boulevard) include some median landscaping. The contractor will be required to provide replacement landscaping where affected. No other designated scenic resources are within the proposed Project area. No impacts to scenic resources will occur as a result of the proposed project. This issue will not be addressed in the EIR.

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

Less than Significant Impact with Mitigation – Rehabilitation and/or replacement of the Orange Western Sub-Trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, Seal Beach Interceptor and construction of Westside Pump Station improvements would occur primarily within developed areas within public rights-of-way or OCSD easements and would primarily be located below the ground surface. The proposed Project will result in temporary visual impacts due to the presence of heavy machinery and construction activities. Construction activities for the Western Regional Sewers would continuously move and would not remain in any one location for extended periods of

time. During construction at the Westside Pump Station, site access would require removal of a portion of the existing property fence; and the equipment building would be enlarged to house the air scrubber. The construction work will be done within the pump station site and behind the existing fence. Subsequent to completion of the improvements at the pump station, the fence will be reconstructed to match the existing fence. Temporary visual impacts associated with construction of the Western Regional Sewers activities and equipment would not substantially degrade the existing visual character or quality of the site and its surroundings but may be considered significant. Visual impacts during construction will be evaluated in the EIR and mitigation measures will be recommended, as required. If the air scrubber is implemented for the Westside Pump Station, an extension of the existing equipment building would be constructed to house the air scrubber resulting in a permanent visual change in the appearance of the OCSD property. If the air jumper is selected for installation, it would be located below grade; and the site and its surroundings would experience no appreciable change. Although the Westside Pump Station would appear very similar to existing conditions, the permanent change may be considered significant. Permanent visual changes associated with operation of the Western Regional Sewers and Westside Pump Station will be evaluated in the EIR and mitigation measures will be recommended as, required.

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

Less than Significant with Mitigation – The proposed Project includes the construction and operation of the Western Regional Sewers and the Westside Pump Station improvements. Construction of the Westside Pump Station would be limited to normal daytime hours. Construction activities associated with the Western Regional Sewers would occur during the day when feasible; however, it is likely that nighttime construction activities within and adjacent to residential areas may be necessary to minimize potential daytime traffic impacts. Where nighttime construction is necessary, and/or where otherwise required by local municipal code (e.g., Los Alamitos Municipal Code 17.14.040 [Light and Glare]), the contractor will be required to focus construction lighting on construction areas and direct it away from residential or other sensitive areas. All construction would be within developed areas within existing public rights-of-way or OCSD easements. Construction is temporary and would not create a new substantial source of light or glare; however, construction lighting impacts may be considered significant when near residential or other sensitive receptors. Proposed improvements do not include new permanent operational lighting and would primarily be located below ground surface. Operation of the Western Regional Sewers and Westside Pump Station will not create any new permanent source of substantial light or glare that would adversely affect nighttime views in the area. Light and glare associated with construction activities will be addressed in the EIR and mitigation measures will be recommended as required.

4.2 Agricultural Resources

Based on the data available from the California Department of Conservation Farmland Mapping and Monitoring Program, the proposed Project area is on lands designated "Urban and Built Up Land" (DOC 2015).

a-e) **No Impact** – Based on the California Department of Conservation Farmland Mapping and Monitoring Program data, designated Prime Farmland is located east of Seal Beach Boulevard/Los Alamitos Boulevard on the Seal Beach Naval Weapons Station, as well as at the Joint Forces Training Base, Los Alamitos. The proposed Project area, however, is classified as urban and does not contain any farmlands, parcels encumbered under the Williamson Act, forest land, or timberland production zones. No impacts to agricultural resources will occur as a result of this Project. This issue will not be addressed in the EIR.

4.3 Air Quality

Criteria for determining the significance of air quality impacts are based on federal, state, and local air pollution standards and regulations. Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make significance determinations. The proposed Project is located within the South Coast Air Basin (SCAB). Construction and operational 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). The SCAQMD also has developed thresholds of significance for both construction and operational emissions.

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 10 microns in diameter or less (PM_{10})
- 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 PM_{10}

- 150 pounds per day of SO_X

Would the project:

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

Potentially Significant Impact – The proposed Project is located in the SCAB, which is in nonattainment for the California Ambient Air Quality Standards (CAAQS) for ozone (O_3), particulate matter 2.5 microns in diameter or less ($PM_{2.5}$), and PM_{10} and in attainment for all other criteria pollutants. The proposed Project area is also in nonattainment for the National Ambient Air Quality Standards (NAAQS) for O_3 and $PM_{2.5}$; in maintenance for CO, PM_{10}, and NO_X; and in attainment for all other criteria pollutants. Potential air quality impacts associated with the proposed Project could result from temporary construction activities including demolition, excavation, and equipment and construction vehicle usage and operations including scheduled maintenance of the system. Typical construction equipment would likely include but is not limited to the following: pavement saw, jack hammer, air compressor, excavator, front loader, dump truck, pick-up trucks, concrete truck, backhoe, crane, delivery truck, asphalt truck, compactor, and paving machine. Operational emissions would be associated with vehicle trips to complete routine maintenance; clean sewer lines and manholes; perform visual inspection utilizing closed-circuit television and camera inspection; conduct flow-monitoring, as-needed repairs, chemical dosing for odor and corrosion control, and operation the air scrubber if it is selected for the project. The proposed Project would not result in a substantial change in required maintenance activities, so operational emissions would be very similar to the existing operational emissions. The EIR will evaluate the potential for the project to generate construction emissions that could exceed federal and state air quality standards and local significance thresholds and will recommend mitigation measures as necessary to ensure compliance with the SCAQMD Air Quality Management Plan (AQMP).

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

Potentially Significant Impact – The proposed Project is located in the SCAB, which is in nonattainment for the CAAQS for O_3, $PM_{2.5}$, and PM_{10} and in attainment for all other criteria pollutants. The proposed Project area is also in nonattainment for the NAAQS for O_3 and $PM_{2.5}$; in maintenance for CO, PM_{10}, and NO_X; and in attainment for all other criteria pollutants. Potential air quality impacts associated with emissions from the construction equipment and vehicle trips associated with maintenance and operation activities listed in 4.3 a). The EIR will evaluate potential for the proposed Project to generate construction emissions that could exceed federal and state air quality standards and local significance thresholds The SCAQMD air quality model, CalEEMod Version 2013.2.2 will be used to assess potential emissions. In addition, emission factors will be obtained from SCAQMD for years 2007 through 2026.The EIR will evaluate potential air quality impacts and recommend mitigation measures as necessary to ensure compliance with the SCAQMD management plans.

c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or state ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?

Potentially Significant Impact – Potential air quality impacts would be associated with emissions from the anticipated construction equipment and vehicle trips associated with maintenance and operation activities listed in 4.3 a). Emissions associated with construction and operations could exceed SCAQMD thresholds of significance and could result in cumulatively considerable net increases in criteria pollutants. The EIR will evaluate potential cumulative emission impacts and recommend mitigation measures, as necessary.

d) Expose sensitive receptors to substantial pollutant concentrations?

Less than Significant with Mitigation – Sensitive receptors are defined as populations that are more susceptible to the effects of pollution than the population at large. Sensitive receptor locations include residential areas, hospitals, schools, playgrounds, daycare facilities, elderly housing, and convalescent facilities. The proposed Project would include construction within the vicinity of sensitive receptors. Considering the temporary construction activities, it is not likely that the proposed Project would result in potentially significant impacts to sensitive receptors; however, in order to analyze impacts of the proposed Project on potential sensitive receptors, air quality analyses will be conducted (as discussed in response 4.3 b) to determine if sensitive receptors would be exposed to construction or operational emissions in excess of SCAQMD construction or operational significance thresholds. Potential air quality impacts would be associated with emissions from the anticipated construction equipment and vehicle trips associated with maintenance and operation activities listed in 4.3 a). The proposed Project would be very similar to the existing operational emissions. The EIR will evaluate potential impacts to sensitive receptors from construction equipment emissions and recommend mitigation measures, as necessary.

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

Less Than Significant with Mitigation – Construction equipment, as well as, construction activities from the proposed Project would emit exhaust fumes (e.g. diesel emission, fumes from asphalt paving activities, fumes from excavation soils off-gassing, etc.). Odors from these sources would be localized and generally confined to the proposed Project site. Construction activities would be completed in accordance with SCAQMD rules. Objectionable odors associated with construction activities are not anticipated to affect a substantial number of people. Operation of Western Regional Sewers and Westside Pump Station is not expected to generate objectionable odors and should reduce odors if either the air jumper line or air scrubber is installed at the Westside Pump Station. The EIR will evaluate potential impacts with regard to the creation of objectionable odors during construction and recommend mitigation measures, as necessary.

4.4 Biological Resources

Would the project:

a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less than Significant Impact – A California Natural Diversity Database (CNDDB) search was conducted on May 27, 2015, and updated on September 30, 2015. The search revealed occurrence records for five sensitive species within 0.25 mile of the proposed Project area: ferruginous hawk (*Buteo regalis*), western tidal-flat tiger beetle (*Cicindela gabbii*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), coast horned lizard (*Phrynosoma blainvillii*), and western pond turtle (*Emys marmorata*); and one State/federally listed endangered species, salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*). The proposed Project area is located within paved public rights-of-way within city streets or OCSD easements. No habitat for any of the species occurs within the proposed Project area. Construction and operation of the proposed Project would not have any effect either directly or through habitat modification on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. This issue will not be addressed in the EIR.

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

No Impact – The proposed Project is located within paved public rights-of-way within city streets or OCSD easements. The proposed Project area does not support any riparian habitat or other sensitive natural communities identified in local or regional plans, policies, or regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service. This issue will not be addressed in the EIR.

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?

Less than Significant Impact – Although the proposed Project site is located within a developed urban area, both the existing alignments of the Los Alamitos Sub-trunk and the Westside Relief Interceptor cross beneath Bixby Channel, Carbon Creek, and/or Moody Creek; and the Seal Beach Interceptor crosses below the Federal Storm Channel. All of these channels

are included in the U.S. Fish and Wildlife Service National Wetlands Inventory database (USFWS 2015) as riverine wetlands (Cowardin Classification: Riverine, streambed, seasonally flooded, excavated; Cowardin et al. 1979). It is likely that these channels are Other Waters of the United States and would be under United States Army Corps of Engineers (USACE) jurisdiction. It is possible that that that they may also contain jurisdictional wetlands pursuant to the Clean Water Act. However, based on OCSD as-built drawings, existing pipes at these locations are approximately 15 to 22 feet beneath the channels. The proposed Project would either rehabilitate the existing lines which run beneath the channels or construct a new line beneath the channels at approximately the same elevation utilizing trenchless technology that would not affect the channels above (e.g., pipe bursting, jack and bore, etc.). Although not anticipated, if groundwater is encountered during the project, the contractor will need to obtain a dewatering permit from the Santa Ana Regional Water Quality Control Board to discharge the groundwater or the groundwater will be containerized and disposed of in accordance with federal and state law. Based on the current proposed construction requirements, no work within the channels is anticipated; and rehabilitation/replacement of the pipeline would not disturb the channel. No federally protected wetlands would be affected. This issue will be addressed in the EIR only if there is change in the proposed Project that will disturb these channels.

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 is located within paved public rights-of-way within city streets or OCSD easements. It does not support native habitat or any migratory fish or wildlife species. Furthermore, the proposed Project site is not located within a migratory wildlife corridor or native wildlife nursery site. No impacts to these resources are anticipated as a result of the proposed Project. This issue will not be addressed in the EIR.

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

Less Than Significant with Mitigation – Several cities within the proposed Project area have tree protection ordinances or policies regarding tree protection. Within Forest Lawn Cemetery, the Los Alamitos Sub-trunk is capacity deficient and will require replacement on a new parallel alignment within the existing road (Guardian Avenue). The current alignment passes beneath a small group of mature trees. Trimming or removal would be required to accommodate the new alignment. At this time, only the areas within or adjacent to the Forest Lawn Cemetery would require removal of mature trees. Removal and avoidance will be considered further during development of the EIR. OCSD or the contractor will coordinate with Forest Lawn Cemetery to determine replacement trees/vegetation. This issue will be evaluated in more detail within the EIR.

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?

Less Than Significant Impact – The proposed Project is located within the Planning Area of the Proposed Orange County Transportation Authority Habitat Conservation Plan/Natural Community Conservation Plan, but it is not located within the Permit Area. Additionally, the proposed Project is located within paved public rights-of-way within city streets or OCSD easements and will have no impacts on native habitats or sensitive species. The proposed Project will not conflict with the provisions of the proposed Orange County Transportation Authority Habitat Conservation Plan/Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. This issue will not be addressed in the EIR.

4.5 Cultural Resources

Would the project:

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

Less Than Significant Impact – The proposed Project is primarily located within paved public rights-of-way within city streets or OCSD easements. Based on a review of the records at California Historical Resources Information System Information Center, no previously documented historical resources are identified within the boundaries of the proposed Project area; however, a cultural resources survey of the proposed Project alignment indicates that a portion of the alignment crosses the Forest Lawn Cemetery in the City of Cypress. Based on the survey, Forest Lawn Cemetery was found to be eligible for inclusion in both the National Register of Historic Places (NHRP) and the California Register of Historical Resources (CRHR) as a historic district with four primary contributing elements. These elements include the Ascension Mausoleum, Church of Our Fathers, mortuary building, and its associated facilities maintenance building, all of which are original to the construction of Forest Lawn Cemetery. While a segment of the proposed Project will be undertaken within the boundaries of Forest Lawn Cemetery, alignments will avoid all identified elements; therefore activities are not expected to affect any of the individual elements that contribute to Forest Lawn Cemetery's significance and eligibility. The proposed Project will have less than significant impact on historic resources as defined in Section 15064.5.

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

Less Than Significant Impact with Mitigation – The proposed Project is primarily located within paved public rights-of-way within city streets or OCSD easements. As such, the proposed improvements are expected to affect only areas that have already been disturbed. A records search within a 1/8-mile radius of the proposed Project indicated that the proposed alignment

falls within, or adjacent to, two previously recorded and disturbed archaeological sites, both of which may retain subsurface artifacts. One of these sites, P-30-001352, was described as a secondary marine shell deposit encompassing 10,000 square meters. The southern half of the site was destroyed by the construction of I-405, and the northern half has since been built over with a parking lot and corporate buildings. Given the high degree of disturbance, this site has little to no integrity and would not be eligible for inclusion in either the NRHP or CRHR. The second site, P-30-001502, was first documented in 1999 as a scatter of artifacts, including shell, faunal and human bone, and stone tools. The westernmost boundary of the site is within the proposed Project's alignment along Seal Beach Boulevard. The last investigation of this site (URS 2010) reported the presence of prehistoric archaeological materials.

While the proposed Project is not expected to disturb the two previously documented archaeological sites; excavation in these areas could displace previously undisturbed soils containing archaeological materials. The EIR will evaluate potential impacts to unknown archaeological resources and will recommend mitigation measures, as necessary.

Pursuant to SB 18 and AB 52, correspondence with Native American representatives to address potential impacts to tribal resources, if any, is currently underway. The EIR will recommend mitigation measures for any identified tribal resources through discussion with the affected tribes when tribal representatives have had the opportunity to comment.

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

Less than Significant Impact with Mitigation – The proposed Project is located primarily within paved public rights-of-way within city streets or OCSD easements. As such, the proposed improvements would primarily impact areas that have already been disturbed; however, construction could involve excavation into native soils and impact unique paleontological resources. The EIR will evaluate potential impacts to paleontological resources and recommend mitigation measures, as necessary.

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

Less than Significant Impact with Mitigation – The proposed Project is located primarily within paved public rights-of-way within city streets or OCSD easements. As such, the proposed improvements are expected to affect only areas that have already been disturbed; however, a portion of the proposed Project is located in Forest Lawn Cemetery. Significant impacts to known burials at the cemetery are not anticipated, as subsurface Project-related activities are expected to be within the limits of the pavement or within existing easements within the cemetery; however, given the close proximity of the project to existing interments, close coordination with Forest Lawn Cemetery will be required. OCSD will coordinate proposed improvements within Forest Lawn Cemetery to identify locations of interments and develop mitigation measures, including the new alignment within Guardian Drive. In addition, the

construction could involve excavation into native soils, potentially resulting in inadvertent discovery of unknown remains. The EIR will evaluate potential for impacts to human remains and recommend mitigation measures, as required.

4.6 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?

Less than Significant Impact – The proposed Project area falls within earthquake fault zones, as delineated on the Alquist-Priolo Earthquake Fault Zoning Map; however, the proposed Project is not located within a special study zone and would be constructed within existing streets and OCSD easements. The proposed Project would rehabilitate or replace an existing system and would be designed and constructed in conformance with the current Uniform Building Code and California Building Code seismic engineering standards. Construction and operation of the proposed Project will not expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from the rupture of a known earthquake fault as a result of the proposed improvements. This issue will not be addressed in the EIR.

ii. Strong seismic ground shaking?

Less Than Significant Impact – The proposed Project site is located in a seismically active portion of southern California, and the potential exists for strong seismic ground-shaking. The Newport-Inglewood Fault is located approximately 1 mile south of the Westside Pump Station. The proposed Project would be designed and constructed in conformance with the current Uniform Building Code and California Building Code seismic engineering standards. Construction and operation of the proposed Project will not expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from strong seismic ground-shaking as a result of the proposed improvements. This issue will not be addressed in the EIR.

iii. Seismic-related ground failure, including liquefaction?

Potentially Significant Impact – The potential for seismic-related ground failure is associated with the probability of severe ground-shaking as a result of an earthquake or a nearby active fault. Liquefaction is the phenomenon that occurs when 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 proposed Project is located in an area mapped as a liquefaction hazard zone (DOC 2015). Appropriate design considerations would be made to ensure the proposed improvements do not expose people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from seismic-related ground failure, including liquefaction. Exposure of people or structures to potential substantial adverse effects, including risk of loss, injury, or death, from seismic-related ground failure, including liquefaction, as a result of the proposed improvements could occur. The EIR will evaluate potential impacts associated with strong seismic-related ground failure, including liquefaction, and will recommend mitigation measures, as required.

iv. Landslides?

Less than Significant Impact – The proposed Project area is generally flat and has a low susceptibility for landslides (DOC 2015). The Proposed sewer line improvements are subgrade and have no exposure to landslides. Implementation of the proposed Project will not expose people or structures to adverse effects associated with landslides. Exposure of people or structures to potential substantial adverse effects, including risk of loss, injury, or death, associated with landslides as a result of the proposed improvements is considered to be a less than significant impact. This issue will not be addressed in the EIR.

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

Less than Significant Impact – The proposed Project is located within paved public rights-of-way within city streets or OCSD easements. As such, the proposed improvements would primarily impact areas that have already been disturbed and covered by fill during roadway construction. Any potential for wind erosion would be limited to the area under construction. The proposed improvements will require excavation of material and, where suitable, on-site soils will be reused as fill. Excavation stockpiles would be watered and/or covered and stored appropriately to limit loss due to erosion. The proposed improvements will not result in substantial soil erosion or loss of topsoil. Impact associated with substantial soil erosion or loss of topsoil is less than significant and will not be addressed in the EIR.

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 – Evaluation of liquefaction and landslides is provided in responses a) iii and iv, respectively. The proposed improvements would be designed and constructed in conformance with the recommendations of a project specific geotechnical report, in accordance with the current Uniform Building Code and California Building Code seismic engineering standards and other applicable building codes. Backfill would be placed to meet standard engineering design requirements and local grading practices. Potential impacts due to an unstable geologic unit or soil, resulting in lateral spreading, subsidence, or collapse will be avoided. Impacts on the project associated with on- or off-site lateral spreading, subsidence, or collapse would be less than significant. This issue will not be addressed in the EIR.

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?

Less than Significant Impact – Section 1803 of the California Building Code (2013) pertains to soils and foundations and design, testing and reporting requirement for structures/foundations resting on soils with an expansion index greater than 20, determined in accordance with ASTM D 4289. Although expansive soils may exist within the proposed Project area, the proposed improvements will be made to an existing system and will be designed in compliance with requirements of governing jurisdictions and applicable building codes. The proposed Project does not involve construction of foundations and would not result in a significant adverse impact from expansive soils, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risk to life or property. This issue will not be addressed in the EIR.

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. The proposed Project will not result in impacts related to septic tanks or alternative wastewater disposal systems. This issue will not be addressed in the EIR.

4.7 Greenhouse Gas Emissions

Would the project:

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

Less than Significant Impact – The proposed Project will take multiple years to construct, requiring concurrent construction operations by multiple contractors. Typical construction equipment could include but is not limited to the following: pavement saw, jack hammer, air compressor, excavator, front loader, dump truck, pick-up trucks, concrete truck, backhoe, crane, delivery truck, asphalt truck, compactor, and paving machine. Operational emissions would be associated with vehicle trips to complete routine maintenance; clean sewer lines and manholes;

perform visual inspections of lines; and conduct flow-monitoring, as-needed repairs, and chemical dosing for odor and corrosion control. Also, there is potential for operational emissions and indirect emission associated with energy usage if an air scrubber is constructed at the Westside Pump Station.

The SCAQMD has adopted interim greenhouse gas (GHG) significance thresholds of 10,000 metric tons per year for carbon dioxide (CO_2) equivalent (CO2e). It is unlikely CO2e emissions from construction of this project would approach these levels, which are more typical of operational emissions from industrial facilities and impacts would be less than significant. The EIR will analyze potential GHG emissions during both construction and operation and evaluate them in relation to the significance thresholds established by the SCAQMD.

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

Less than Significant Impact – OCSD has not adopted any specific plans, policies, or regulations for reducing GHGs. The SCAQMD has several programs available for reducing GHG emissions, including the Climate Change Policy approved in 2008 and the Green Policy approved in 2009. The Climate Change Policy was enacted for the purpose of assisting businesses and local government agencies with reducing carbon emissions, while the Green Policy guides SCAQMD decisions relative to reducing its own carbon emissions. The SCAQMD has adopted an interim GHG significance threshold of 10,000 metric tons per year for CO2e. Construction GHG emissions will be quantified and reported in the EIR. Refer to section 4.7 a) for a list of typical construction equipment and operational activities. Operational emissions would primarily be associated with vehicle trips associated with maintenance of the Western Regional Sewers, and if installed, the future energy use for the air scrubber. Operational emissions will be evaluated in the EIR, but are anticipated to be far below the significance threshold. Operational emissions are not anticipated to conflict with any polices or plans.

4.8 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?

Less than Significant Impact – The proposed improvements may require transport of hazardous materials (e.g., petroleum, solvents, lubricants, etc.) to the proposed Project site during construction. Operations could require transport of other chemicals (magnesium hydroxide, hydrogen peroxide, sodium hydroxide, ferrous chloride, etc.) to control odor and corrosion that may be added directly to the sewers. The project will be required to comply with laws and regulations regarding transport use and disposal of hazardous materials. With compliance with applicable laws and regulations, the proposed Project will not result in a significant hazard to the

public or environment; and impacts will be less than significant. This issue will not be addressed within the EIR.

b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less than Significant Impact – The proposed improvements may require transport of hazardous materials (e.g., petroleum, solvents, lubricants, etc.) to the proposed Project site during construction. Operations could require transport of other chemicals (magnesium hydroxide, hydrogen peroxide, sodium hydroxide, ferrous chloride, etc.) to control odor and corrosion that may be added directly to the sewers. However, neither the construction nor operation of the project will result in reasonably foreseeable upset or accident conditions. Potential for the proposed Project to result in a release of hazardous materials that would create a significant hazard to the public or the environment will be less than significant. This issue will not be addressed within the EIR.

c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school?

Less than Significant Impact with Mitigation – Twenty-three schools located within 0.25 mile of the proposed Project and are listed in the table 4.1 below. Construction of the proposed improvements may require use of hazardous materials (e.g., petroleum, solvents, lubricants, etc.). Additionally, construction equipment would emit diesel particulates; and excavation of contaminated soils could emit volatile organic compounds. At this time it is not anticipated that the proposed Project would involve handling or use of acutely hazardous materials. The EIR will evaluate potential use and/or emissions of hazardous materials near schools and will recommend mitigation measures, as required.

Table 4-1: Schools within 0.25 Mile of the Proposed Project Area

School Name	Address	City
Christ the King Elem School	3591 Orangewood Avenue	Los Alamitos
Montessori School-Eureka	4161 Green Avenue	Los Alamitos
St John's-Epis	641 South Western Avenue	Anaheim
Elk Grove Montessori Elementary	8271 Gay Street	Cypress
Adventist Union School	4321 Cerritos Avenue	Cypress
Center For Early Education	4460 Lincoln Avenue	Cypress
Rosecrans Elementary	4351 Orange Avenue	Cypress
Walton Middle	3715 W. Orange Avenue	Anaheim
Tubman (Harriet) Continuation High School	501 S. Western Avenue	Anaheim
Foxborough Elementary	320 Danbrook Street	Anaheim
Wood Canyon Elementary	195 N. Western Avenue	Anaheim
Valencia Elementary	9281 Denni Street	Cypress
Workman Avenue Elementary	4545 Myra Avenue	Cypress
Cox Bar Elementary	8710 Moody Street	Cypress
Cuddeback Elementary	4631 La Palma Avenue	La Palma
El Rincon Elementary	9739 Denni Street	Cypress

Table 4-1: Schools within 0.25 Mile of the Proposed Project Area		
School Name	**Address**	**City**
Avalon (K-12)	10821 Oak Street	Los Alamitos
Two Harbors Elementary	10862 Bloomfield Street	Los Alamitos
International Elementary	3591 Cerritos	Los Alamitos
California Academy of Mathematics & Science	4112 Cerritos Avenue	Los Alamitos
Educational Partnership High (Ind. Study)	10291 Bloomfield Street	Los Alamitos
Holder Elementary	720 S. Western Avenue	Anaheim
Sawyers Bar Elementary	9500 Holder Street	Buena Park

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?

Less than Significant with Mitigation – Excavation will be required for rehabilitation and/or replacement of the Western Regional Sewers and for the proposed improvement of the Westside Pump Station. Based on a review of the State Water Resource Control Board's Geotracker, multiple sites that are on the list compiled pursuant to Government Code 65962.5 are adjacent to the proposed Project site but not located on the site; however, excavated soils may have been affected by contamination from adjacent facilities. The EIR will evaluate potential impacts on the proposed Project from adjacent contaminated sites and will recommend mitigation measures, as required.

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?

Less than Significant Impact – Portions of the proposed Project are located within the Los Alamitos Army Air Field Airport Environs Land use Plan (AELUP). Neither construction nor the operation of the proposed Project will result in any safety hazard impacts for people associated with activities within the AELUP. This issue will not be addressed in the EIR.

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 – The proposed Project is not located within the vicinity of a private airport. The proposed Project will not result in a safety hazard related to a private airstrip for people residing or working in the proposed Project area. This issue will not be addressed in the EIR.

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

Less than Significant Impact with Mitigation – Rehabilitation and/or replacement of the pipelines throughout the proposed Project area would require construction activities to occupy up to one and, in some cases, more than one lane of the existing roadway. This would result in temporary lane and or street closures for replacement locations (see Figure 2-2). The contractor will be required to provide local/emergency access at all times; however, temporary closures could hinder evacuation during an emergency. The EIR will evaluate potential impacts on emergency response/evacuation plans and will recommend mitigation measures, as required.

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 adjacent to or near wildland areas or areas where wildlands are adjacent to urbanized areas. The proposed Project will have no impacts on people or structures due to a significant risk of loss, injury, or death involving wildland fires. This issue will not be addressed in the EIR.

4.9 Hydrology and Water Quality

Would the project:

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

Less than Significant Impact – The proposed Project will disturb more than one acre and will be required to comply with the requirements of the State Water Board Construction General Permit (ORDER NO. 2012-0006-DWQ National Pollutant Discharge Elimination System (NPDES) Permit NO. CAS000002) and will require the preparation of a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP addresses the implementation of best management practices (BMPs) to address stormwater discharges from the construction site that otherwise could contribute to potential violations of water quality standards or waste discharge requirements. Additionally, construction activities will comply with the requirements of the applicable County of Orange Drainage Area Management Plan (DAMP) for public works construction projects, which includes details for management of stormwater throughout Orange County and compliance with city and county individual NPDES permits, as applicable. All public works construction contracts in Orange County are governed by "Standard Specifications for Public Works Construction." Section 7 of these standard specifications imposes specific construction practices, which are included within DAMP Appendix H as structural and nonstructural BMPs for public works construction. In general, the standard specifications require the contractor to keep informed of, observe, and comply with state and federal laws and county and municipal ordinances and regulations.

Excavation will occur within the proposed Project site. The majority of the excavation areas are paved. Groundwater in the proposed Project area occurs approximately 50 to 70 feet below mean

sea level (OCWD 2014) and is not anticipated to be encountered during construction of the proposed Project. In the event that perched groundwater zones are encountered, a dewatering permit would be obtained from the Santa Ana Region Water Quality Control Board prior to any dewatering. Depending on the environmental analysis of the water, water meeting discharge requirements would be discharged to the storm drains. Water not meeting discharge requirements would need to be treated prior to discharge or hauled to a treatment facility.

Construction staging would occur on the proposed Project site, with the exception of temporary parking of vehicles on the adjacent roads. Equipment will be inspected to prevent leaks and will be maintained as part of customary construction practices. Therefore, any residual oil, grease, and other fuel products from equipment would be negligible and would not result in significant impacts on surface or groundwater.

Subsequent to the completion of the construction activities, surface areas would be repaved or otherwise restored to preconstruction conditions. Operation of the proposed Project would not affect surface or groundwater.

The proposed Project would not result in a significant impact to on- or off-site water quality or water quality of receiving waterbodies if discharges are necessary. This topic will not be discussed in the EIR.

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 preexisting nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

Less than Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station will not result in a depletion of groundwater supplies. The construction and operation of the proposed Project would not interfere with groundwater recharge. Proposed Project impacts on groundwater supplies or recharge will be less than significant. This topic will not be discussed in the EIR.

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?

Less than Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station would primarily be below the paved road surface and will have a less than significant effect on the existing drainage pattern of the site or area. The Western Regional Sewers cross perpendicular to four concrete-lined OCFCD drainage channels (Bixby Channel, Federal Storm Channel, Carbon Creek, and Moody Creek); however, proposed improvements will go beneath the channel, using underground trenchless technology. The proposed Project will not require work within the channels, will not

alter the existing channels within the site, and will not result in any substantial erosion or siltation on- or off-site. Potential project impacts on drainages patterns will be less than significant. This topic will not be discussed in the EIR.

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 site or off site?

Less than Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station would primarily be below the paved road surface and beneath Bixby Channel, Federal Storm Channel, Carbon Creek, and Moody Creek and will not have any substantial effect on the existing drainage pattern of the site or area or the course of a river or stream. The proposed Project would not result in new impervious surface. Subsequent to construction, the street would be repaved to preconstruction conditions. The West Side Pump Station improvements also would not result in new impervious surfaces and therefore would not substantially increase the rate or amount of surface runoff that would result in flooding on or off site. The proposed Project will not have a significant effect on the existing drainage pattern or result in flooding. This topic will not be discussed in the EIR.

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 – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station are intended to accommodate 2040 wet weather flows and eliminate surcharging. The proposed Project is primarily below grade, and the road surface will be returned to its original or better condition subsequent to construction. During construction, BMPs would be implemented to control erosion and sedimentation from excavated soil in stormwater runoff. This would minimize erosion and sedimentation associated with stormwater from affecting surface waters. Subsequent to construction, the proposed Project would not result in any new impervious surfaces. The proposed Project would not create or contribute runoff and would have no impact to stormwater drainage systems or provide any source of polluted runoff. The proposed Project would have no impact on existing or planned drainage systems or provide additional sources of polluted runoff. This topic will not be discussed in the EIR.

f) Otherwise substantially degrade water quality?

Less Than Significant Impact – Refer to Response a) above, which addresses impacts to water quality. The proposed Project is not anticipated to substantially degrade water quality. This topic will not be discussed in the EIR.

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 – Construction of housing is not associated with the proposed Project. This topic will not be discussed in the EIR.

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

No Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station would be below grade. The proposed Project will not include structures that would impede or redirect flood flows. Therefore, no impacts would be associated with the placement of structures that would impede or redirect flood flows within a 100-year flood hazard area. This topic will not be discussed in the EIR.

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 – No levee or dam is located within the proposed Project area. The proposed Project is primarily located below ground and will not expose people or structures to any significant risk of loss or injury or contribute to flooding as a result of the failure of a levee or dam. This topic will not be discussed in the EIR.

j) Inundation by seiche, tsunami, or mudflow?

No Impact – Based on the location of the proposed Project site, the site is not likely to be inundated by a seiche, tsunami, or mudflow. This topic will not be discussed in the EIR.

4.10 Land Use and Planning

Would the project:

a) Physically divide an established community?

Less than Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station would be constructed within existing streets and OCSD easements. Access to homes and businesses would be maintained during construction. Subsequent to construction, access would be the same as prior to construction. Construction and operation of the proposed Project will not divide an established community. This topic will not be discussed in the EIR.

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?

Potentially Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station would not change existing land uses; however, due to the potential need for nighttime construction and anticipated construction noise, the proposed Project may conflict with existing plans or regulations pertaining to nighttime construction, nighttime construction lighting, and noise where there are sensitive land uses affected. The EIR will evaluate conflicts with existing general plan designations or zoning ordinances and then will evaluate what the associated impact with the inconsistency would be and will recommend mitigation measures, as required.

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

Less Than Significant – The proposed Project is located within the Planning Area of the Proposed Orange County Transportation Authority Habitat Conservation Plan/Natural Community Conservation Plan, but it is not located within the Permit Area. Additionally, the proposed Project is located within paved public rights-of-way within city streets or OCSD easements and would have no impacts on native habitats or sensitive species. It would not conflict with the provisions of the proposed Orange County Transportation Authority Habitat Conservation Plan/Natural Community Conservation Plan or other approved local, regional, or state habitat conservation plan. This issue will not be addressed in the EIR.

4.11 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 will not use mineral resources and will not affect the availability of any known mineral resources. 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. This topic will not be discussed in the EIR.

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. The proposed Project will not result in the loss of availability of a locally important mineral resource recovery site. This topic will not be discussed in the EIR.

4.12 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?

Potentially Significant Impact – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station have the potential to create temporary noise increases through construction equipment usage and vehicle trips generated by construction workers and supply/haul trucks traveling to and from the proposed Project site. Construction equipment usage is anticipated to generate the loudest noise levels during construction that could exceed local ordinance standards within the following areas: City of La Palma, City of Buena Park, City of Anaheim, City of Cypress, City of Los Alamitos, City of Seal Beach, and unincorporated areas of Orange County (Rossmoor). Typical construction equipment would likely include but is not limited to the following: pavement saw, jack hammer, air compressor, excavator, front loader, dump truck, pick-up trucks, concrete truck, backhoe, crane, delivery truck, asphalt truck, compactor, and paving machine. Operational noise would be associated with vehicle trips to complete routine maintenance; clean sewer lines and manholes; perform visual inspection utilizing closed-circuit television and camera inspection; conduct flow-monitoring, as-needed repairs, and chemical dosing for odor and corrosion control; and operation of the air scrubber, if included in the project. All scrubber equipment would be installed within an extension of the existing building. Completion of the proposed Project would result in no significant change of operational noise from the baseline conditions.

Table 4-1 below summarizes the noise restrictions specified in applicable ordinances. Additionally, night construction may be required; and nighttime construction noise levels may also exceed/conflict with general plan/local ordinance standards. The Federal Highway Administration (FHWA) Roadway Construction Noise Model (RCNM) will be used to assess potential short-term construction impacts throughout the proposed Project area. The EIR will evaluate potential noise impacts, including 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 and will recommend mitigation measures, as required.

Table 4-2: Noise Level Restrictions per Local Ordinances

City or County	Applicable Noise Ordinance	Noise Level Threshold	Noise Restrictions
City of La Palma	Article III, Division 1, Section 44-267 Noise	n/a	Construction activities are prohibited on Monday – Friday from 5:00 p.m. to 7:00 a.m., Saturday from 5:00 p.m. to 7:00 a.m., and Sundays and holidays. Modification of construction hours may be granted for temporary uses per section 44-1007(7).
City of Buena Park	Title 8, Chapter 8.28 Noise	n/a	Construction is prohibited on Sundays and any other day between the hours of 8:00 p.m. and 7:00 a.m.
City of Anaheim	Title 6, Chapter 6.73 Noise	n/a	Unreasonable noise is prohibited between the hours of 10:00 p.m. and 7:00 a.m.
City of Cypress	Article VII, Chapter 13, Section 13-70 Noise	n/a	Construction activities are prohibited between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, 8:00 p.m. and 9:00 a.m. on Saturdays, and any time on Sunday and federal holidays. A variance will be required if construction activities occur outside the specified days and times.
City of Los Alamitos	Title 17, Division 3, Chapter 17.24 Noise	n/a	Construction activities are prohibited between the hours of 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday and federal holidays. A variance will be required if construction activities occur outside the specified days and times.
City of Seal Beach	Title 7, Chapter 7.15 Noise	n/a	Construction activities are prohibited between 8:00 p.m. and 7:00 a.m. on weekdays, 8:00 p.m. and 8:00 a.m. on Saturdays, or any time on Sundays and holidays.
Unincorporated Orange County	Division 6, Article 1, Section 4-6	n/a	Construction activities are prohibited between 8:00 p.m. and 7:00 a.m. on weekdays, including Saturday, or any time on Sunday or federal holidays.

n/a = not applicable

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

Less than Significant Impact with Mitigation – Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station will be located near various sensitive receptor locations and could expose of persons to or generation of excessive groundborne vibration or noise during construction. Groundborne vibration and groundborne noise levels are generally caused by impact devices such as pile driving. Although use of these devices is not anticipated during construction, groundborne vibration from heavy equipment operations could occur. The Federal Transit Administration (FTA) *Transit Noise and*

Vibration Impact Assessment Manual provides vibration impact criteria and recommended methodologies and guidance for assessing potential vibration impacts. The EIR will evaluate potential groundborne vibration and noise impacts associated with the anticipated construction equipment. Typical equipment could include but is not limited to the following: pavement saw, jack hammer, air compressor, excavator, front loader, dump truck, pick-up trucks, concrete truck, backhoe, crane, delivery truck, asphalt truck, compactor, and paving machine.

Following construction, only the potential operation of the air scrubber at Westside Pump Station could result in groundborne noise or vibration. The air scrubber would be constructed within an extension to an existing equipment building which would attenuate the overall noise in most cases. The EIR will evaluate potential noise impacts, including exposure of persons to excess noise and vibration. Additional mitigation measures would be developed to further reduce noise and vibration from the Westside Pump Station.

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

Less than Significant Impact with Mitigation – Only the potential operation of the air scrubber at Westside Pump Station could result in a permanent increase in ambient noise levels in the project vicinity. The air scrubber would be constructed within an extension to an existing equipment building, which would attenuate the overall noise in most cases. The EIR will evaluate potential noise impacts, including operational noise from the air scrubber and associated increases in ambient noise conditions. If necessary, additional mitigation measures will be developed to further reduce potential permanent increases in ambient noise conditions.

d) A substantial temporary or periodic increase in ambient noise levels in the project the ambient noise conditions?

Potentially Significant Impact – Refer to Response 4.12 a) above for discussion of potential construction noise. In addition weekend and/or nighttime construction may be required to minimize project effects on traffic and/or other sensitive day time land uses (schools, Los Alamitos Race Course, etc.). The EIR will evaluate noise associated with construction and will recommend mitigation measures, as required.

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?

Less than Significant Impact – Portions of the proposed Project are located within the Los Alamitos Army Air Field AELUP. Aircraft noise within the portions of the proposed Project area within the AELUP is required to conform to noise restrictions established in the AELUP. Rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station will have no effect on noise or noise contours associated with Los

Alamitos Joint Forces Training Base and would not expose people residing or working in the proposed Project area to excessive noise levels. This topic will not be discussed in the EIR.

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 – The proposed rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station is not located within the vicinity of a private airstrip. This topic will not be discussed in the EIR.

4.13 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 – Rehabilitation and/or replacement of the Western Regional Sewers and improvements of the Westside Pump Station would not directly or indirectly induce substantial population growth in the area because the proposed Project involves rehabilitation and/or replacement of the Western Regional Sewers and new construction to replace a wet well at an existing pump station; these components have exceeded their functional life. Capacity deficient segments would be increased to accommodate 2040 wet weather flows; however, the proposed rehabilitation and/or replacement would not increase the capacity of the system and would not directly or indirectly induce substantial growth. Therefore, the proposed Project will not induce population growth. This topic will not be discussed in the EIR.

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

No Impact – Neither construction nor operation of the proposed Project includes or requires acquisition of any property. The proposed Project would be constructed within public rights-of-way and will not displace any housing or necessitate construction of any replacement housing. The proposed Project will not displace existing housing or necessitating the construction of replacement housing. This topic will not be discussed in the EIR.

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

No Impact – Neither construction nor operation of the proposed Project includes or requires acquisition of any property and will not displace any people. The proposed Project would be

constructed within public rights-of-way and will not displace any people or housing. This topic will not be discussed in the EIR.

4.14 Public Services

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

- Fire protection?
- Police protection?
- Schools?
- Parks?
- Other public facilities?

Less Than Significant Impact with Mitigation – The proposed rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station could result in additional temporary areas of traffic congestion associated with staging and constructing of the proposed Project within public street rights-of-way. Construction of the proposed Project also could potentially result in disruption or delay of fire and police protection, potential delays for school buses or other vehicles transporting students to and from schools, and temporary relocation/closure of bus stops; however, the proposed Project would not result in substantial adverse impacts that will require new or altered government facilities. Additionally a portion of the Los Alamitos sub-trunk passes beneath the Denni Street Park and would be replaced utilizing trenchless technology. Construction would not result in closure or any substantial adverse physical impacts on the Denni Street Park; however, parking and/or street access may be limited during construction. Operation of the proposed Project would be the same as for the existing system and would not result in any substantial adverse physical impacts on public services. The EIR will evaluate potential public service impacts and will recommend mitigation measures, as required.

4.15 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?

Less than Significant Impact with Mitigation – The proposed Project will not increase the use of parks of other recreational facilities such that substantial physical deterioration of the facility

will occur or will be accelerated; however, the portion of the Los Alamitos sub trunk beneath the Denni Street Park has been identified as being capacity deficient and will have to be replaced. As previously discussed, trenchless technology would be utilized at this location and although direct disturbance or closure during construction is not anticipated, parking and/or street access may limited during construction. The EIR will evaluate potential impacts on the Denni Street Park and it users and will recommend mitigation measures, as required.

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. The proposed rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station will not have an adverse physical effect on the environment related to construction or expansion of recreational facilities. This topic will not be discussed in the EIR.

4.16 Transportation/Traffic

Would the project:

a) Conflict with an applicable plan, ordinance, or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?

Less than Significant Impact with Mitigation – Rehabilitation and/or replacement of the pipelines would encroach into traffic lanes and may require temporary lane and or street closures; parking restrictions; and, potentially, nighttime construction to minimize traffic impacts during the day. This encroachment may result in conflicts with applicable plans, ordinances, or policies regarding performance of the circulation system. Additionally, where replacement is necessary, or where existing pipes are close to the roadway shoulders, construction could temporarily reduce access for bike and buses. Operational impacts would be associated with vehicle trips to complete routine maintenance; clean sewer lines and manholes; and perform visual inspections, closed-circuit television and camera inspection, flow-monitoring, as-needed repairs, and chemical dosing for odor and corrosion control. The proposed Project would not result in any substantial increase in the frequency of maintenance activities, so operational traffic impacts would be very similar to existing conditions. The operation of the proposed Project would not have a significant impact on of traffic circulation. The EIR will evaluate potential construction-related traffic impacts and will recommend mitigation measures, as required.

b) Conflict with an applicable congestion management program, including, but not limited to, level of service standards and travel demand measures or other standards established by the county congestion management agency for designated roads or highways?

Potentially Significant Impact – The Orange County Transportation Authority is responsible for the applicable congestion management program (CMP). Katella Avenue and Valley View Boulevard are the only CMP roadways within the proposed Project area. Currently no impacts to Valley View Boulevard are anticipated; however, replacement and rehabilitation associated with the Westside Relief Interceptor and Los Alamitos Sub-trunk are anticipated on Katella Avenue (see Figure 2-2). Replacement and/or rehabilitation of the pipelines and proposed improvements would encroach into traffic lanes and require temporary lane and or street closures; parking restrictions; and, potentially, nighttime construction that could result in a significant impact to level of service on Katella Avenue. The EIR will evaluate potential construction impacts on traffic and will recommend mitigation measures, as required. Potential operational impacts are discussed in 4.16 a). The proposed Project would not result in any substantial increase in the frequency of maintenance activities, so operational traffic impacts would be very similar to existing conditions. The operation of the proposed Project would have a less than significant impact on any CMP roadway.

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. This topic will not be discussed in the EIR.

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 – Subsequent to completion of the Western Regional Sewers Project, the proposed Project area will look the same as it did prior to the rehabilitation and/or replacement of the pipelines. Construction of the wet well at the pump station would be behind the property fence. The proposed Project will not increase hazards due to design features or incompatible uses. This topic will not be discussed in the EIR.

e) Result in inadequate emergency access?

Potentially Significant Impact – The proposed rehabilitation and/or replacement of the Western Regional Sewers would encroach into traffic lanes and require temporary lane and/or street closures and, potentially, nighttime construction that could result in some delay to emergency access on a short-term basis. The contractor would be required to provide local and emergency access at all times. Construction impacts on emergency access will be evaluated in the EIR; and mitigation measures will be recommended, as required. Potential operational impacts are discussed in 4.16 a). The proposed Project would not result in any substantial increase in the

frequency of maintenance activities, so operational traffic impacts would be very similar to existing conditions. Operation of the proposed Project will not have a significant impact on any emergency access.

f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?

Less than Significant Impact – Subsequent to construction, all proposed Project areas affecting plans or programs regarding public transit, bicycle, or pedestrian facilities will be returned to the existing condition. The proposed Project would be primarily below grade and will not result in a significant impact on the performance or safety of such facilities. The proposed rehabilitation and/or replacement of the Western Regional Sewers and proposed improvements at the Westside Pump Station will not result in a significant impact on any adopted policies, plans, or programs supporting alternative transportation. This issue will not be addressed in the EIR.

4.17 Utilities and Service Systems

Would the project:

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

No Impact – Rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station would not influence quantities of wastewater generated. The proposed Project would rehabilitate and or replace an existing system to accommodate 2040 wet weather flows and would eliminate groundwater intrusion, which could result in a reduction in the amount of wastewater in the system. The proposed Project will not exceed the existing wastewater treatment requirements of the Regional Water Quality Control Board. This topic will not be discussed in the EIR.

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 – Rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station would increase the size of the pipes, where required, to meet 2040 wet weather flows and eliminate surcharging. The areas that need to be increased are located in the middle portions, where smaller pipe results in surcharging and restricts flow (see Figure 2-2). Pipes proposed to be upsized would be upsized only to match pipes upstream and downstream. Increasing the pipe size, where required, to meet 2040 wet weather flows would not require construction of new or expansion of existing treatment facilities. This topic will not be discussed in the EIR.

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 stormwater drainage facilities or expansion of existing facilities would be required as part of the proposed Project. The proposed Project would rehabilitate the existing Western Regional Sewers and return the proposed Project area to preconstruction conditions. This topic will not be discussed in the EIR.

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

No Impact – The proposed Project will not require the provision of new water supplies. Water entitlements and resources will not be impacted by the proposed Project. This topic will not be discussed in the EIR.

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 – Rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station would increase the size of the pipes, where required, to meet 2040 wet weather flows and eliminate surcharging. The proposed Project would rehabilitate and or replace an existing system and eliminate groundwater intrusion, which could result in a reduction in the amount of wastewater in the system. The proposed Project accommodates the forecasted 2040 wet weather flows and will have no impact on demand. This topic will not be discussed in the EIR.

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

Less than Significant Impact – Debris or solid waste generated during rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station would be transported to an approved solid waste disposal facility. The proposed Project is not expected to substantially affect the capacity of existing landfills. The proposed Project would not generate solid waste following completion of the proposed Project. This topic will not be discussed in the EIR.

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

Less than Significant Impact – Solid waste produced by the proposed Project will be disposed of at a properly permitted facility in accordance with federal and state laws. This topic will not be discussed in the EIR.

4.18 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?

Less Than Significant Impact With Mitigation – As described in Section 4.4, the proposed Project area is located within paved public rights-of-way within city streets or OCSD easements and will have no impacts on native habitats or sensitive species or restrict their range. As described in Section 4.5, based on the cultural resources records search, site, P-30-001502, westernmost boundary is within the proposed Project's alignment along Seal Beach Boulevard. The proposed Project would not substantially degrade the quality of the environment or eliminate important examples of major periods of California history or prehistory; however, if excavation of native soils is required this would have a potential to impact unknown buried historic resources. This will be addressed within the cultural resources section of the EIR, and mitigation measures would be developed as appropriate.

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

Less Than Significant Impact – Primarily, noise, traffic, and air quality impacts associated with construction of the rehabilitation and/or replacement of the Western Regional Sewers and improvements at the Westside Pump Station have potential to be cumulatively considerable. Potential long-term impacts from operation would be substantively the same as the existing system and would not result in cumulatively considerable operational impacts. Potential cumulative impacts will be addressed in the EIR.

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

Potentially Significant Impact – Construction impacts associated with the proposed Project may result in temporary unavoidable significant impacts that could result in temporary adverse effects on human beings during construction. Subsequent to construction, the proposed Project impacts would be limited to maintenance and inspections for the life of the facility, which would not result in any long-term direct or indirect adverse effects on human beings.

5.0 Preparers and Contributors

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Appendix A

Project Area

RCP 51

23+44.90

RCP 51

Perimeter Rd

9+77.35

RCP 51

2+47.50

RCP 51

A T Rd

Westminster Blvd

Seal Beach Blvd

del Monte Dr

Golden Rain Rd

Burning Tree Ln

Annandale Dr

St Andrews Dr

Church Pl

Westminster Ave

Map 1 of 23

NORTH

400 200 0 400 Feet

Seal Beach Interceptor (3-11)

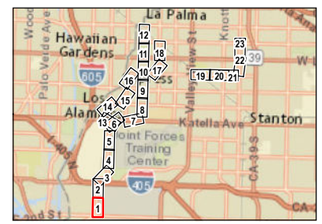
Seal Beach Pump Station

Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

Canal or Ditch



Orange County Sanitation District
Sewer Mains and Manholes

10/6/2015

Map 2 of 23

NORTH

400 200 0 400 Feet

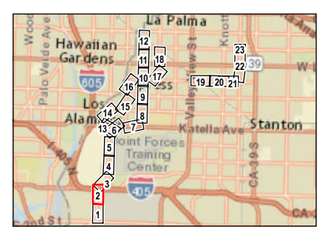
- Los Alamitos Sub-trunk (3-8)
- Seal Beach Interceptor (3-11)
- Westside Relief Interceptor (3-21-1 and 3-21-2)
- PS **Westside Pump Station**

Manhole Type (Stationing Labeled) :

- DIV
- STD

- Orange County Assessor Parcels (2013)
- Canal or Ditch
- Health Care Facility

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Lampson Ave
Seal Beach Blvd
I-405
State Hwy 22
San Diego Fwy
Old Ranch Pkwy
Yellowtail Dr
Rowena Dr
Druid Ln
St Cloud Dr
Silver Fox Rd
Hillrose Dr
Oak Way Dr
21+26.24
19+94.98
20+00.00
18+50.00
11+63.50
6+65.00
0+45.00
57+74.77
55+96.09
52+32.50
34+75.00
VCP 39
VCP 30
VCP 24
RCP 51

Map 3 of 23

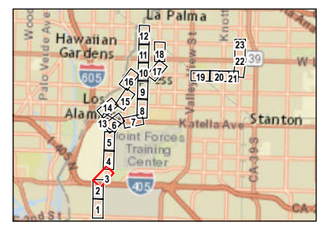
NORTH
400 200 0 400 Feet

- Los Alamitos Sub-trunk (3-8)
- Seal Beach Interceptor (3-11)
- Westside Relief Interceptor (3-21-1 and 3-21-2)
- PS **Westside Pump Station**

Manhole Type (Stationing Labeled) :
- DIV
- STD

- Orange County Assessor Parcels (2013)
- Canal or Ditch

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Orville Lewis Park
Reagan St
Kempton Dr
Old Harbor Ct
Bridgewater Way
Pine St
Nantucket Pl
Plymouth Dr
Pso Bonita
VCP 36
61+25.00
VCP 36
55+13.50
VCP 39
49+50.00
VCP 39
44+10.00
VCP 39
41+85.02
41+13.00
36+08.00
VCP 39
34+75.00
31+11.29
VCP 39
Los Alamitos Blvd
Seal Beach Blvd
VCP 30
VCP 30
VCP 30
VCP 30
VCP 30
VCP 30
Davenport Rd
Bradbury Rd
Rossmoor Center Way
Weatherby Rd
Wallingsford Rd

Map 4 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

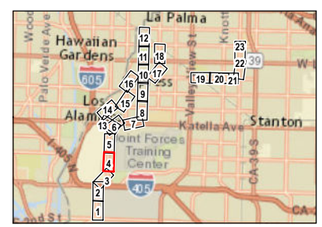
STD

Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

Canal or Ditch

Orange County Sanitation District
Sewer Mains and Manholes



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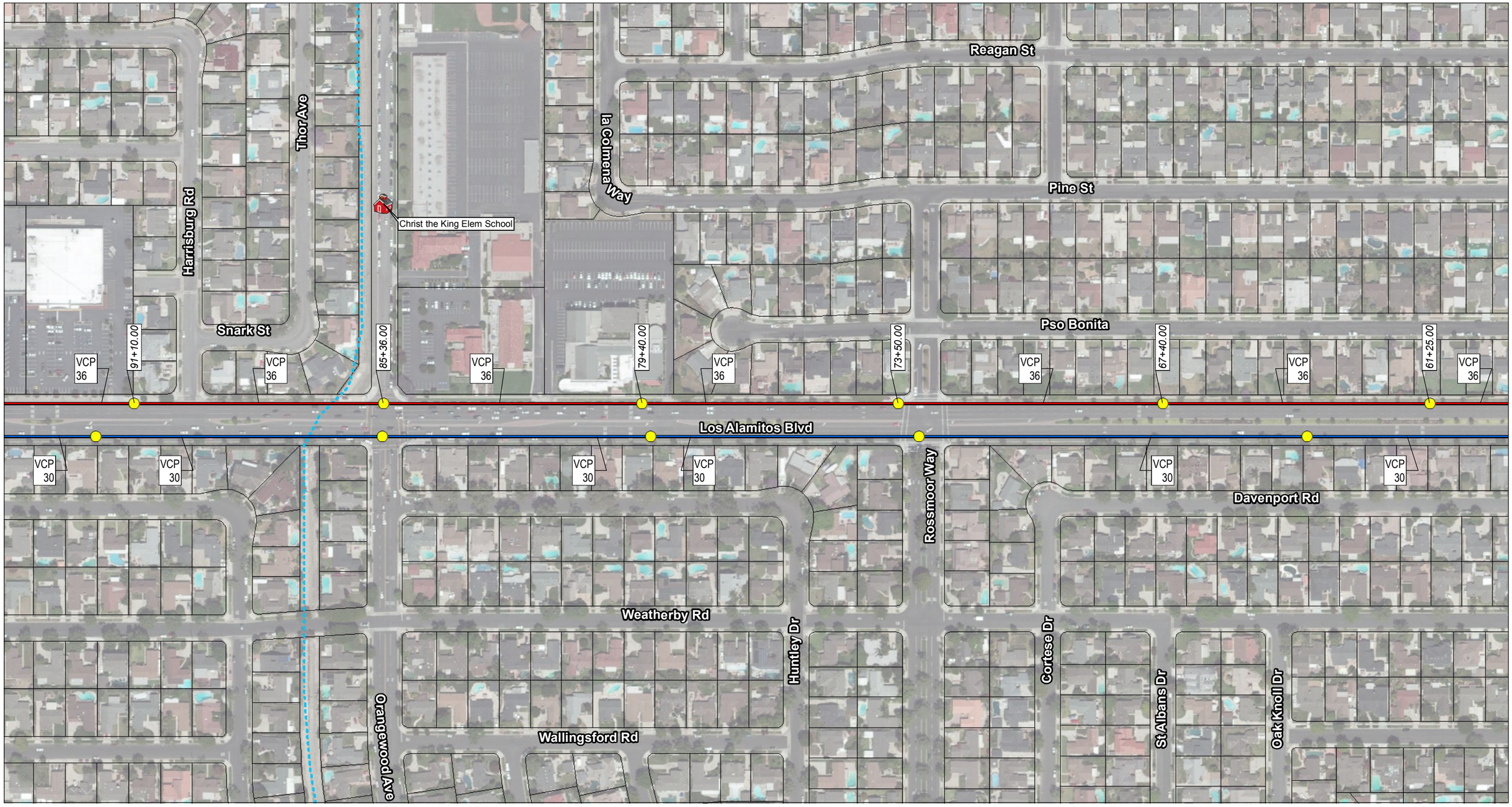


Map 5 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

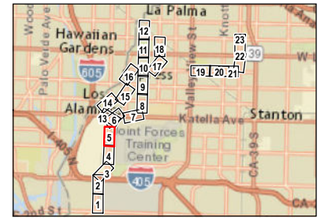
STD

Orange County Assessor Parcels (2013)

Canal or Ditch

School

Orange County Sanitation District
Sewer Mains and Manholes



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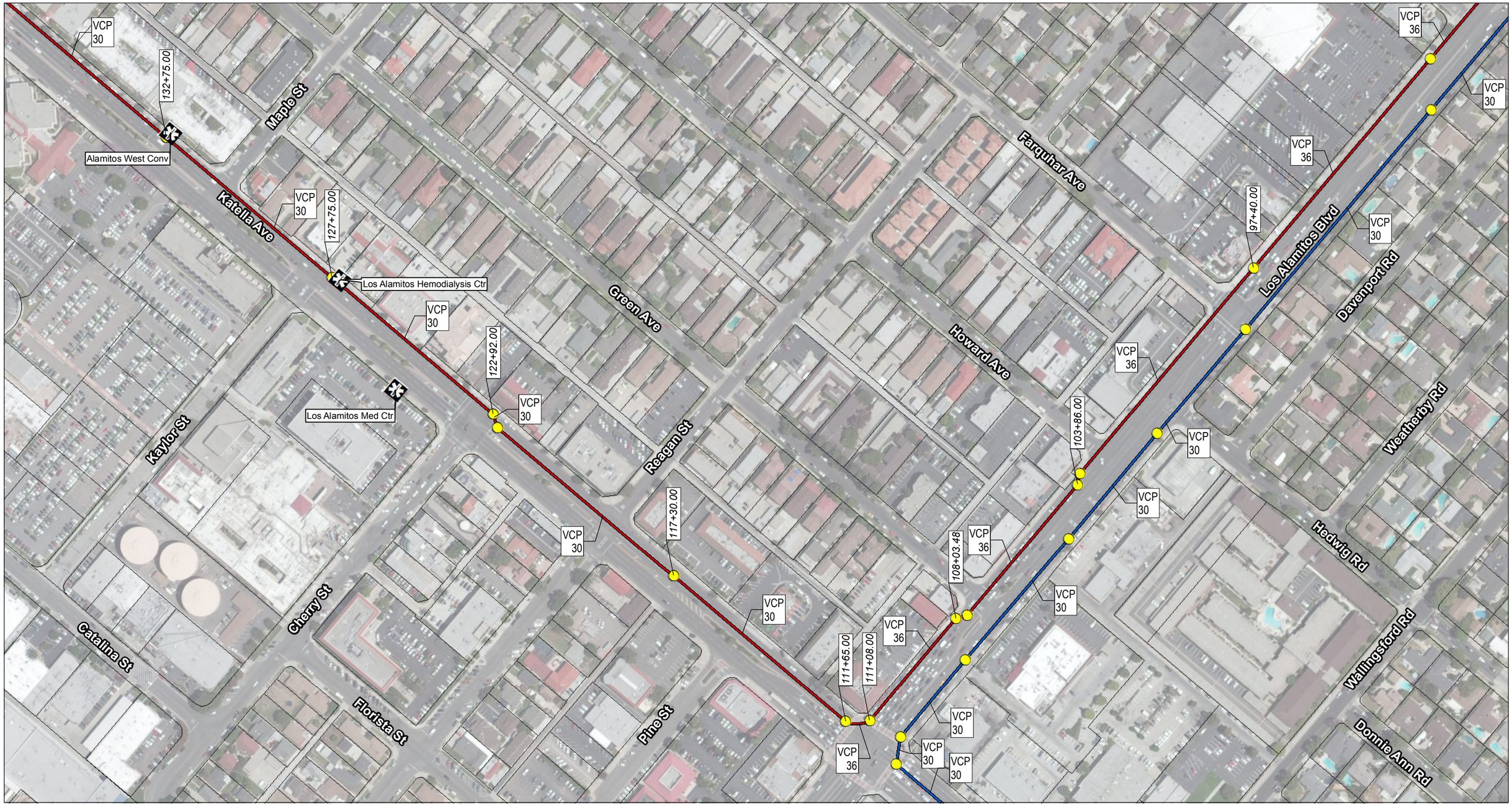


Map 6 of 23

NORTH 400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Westside Relief Interceptor (3-21-1 and 3-21-2)

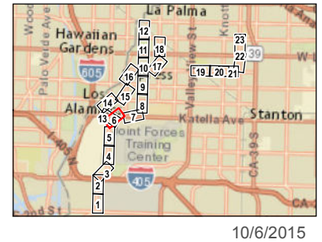
Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

Health Care Facility

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 7 of 23

NORTH 400 200 0 400 Feet

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

STD

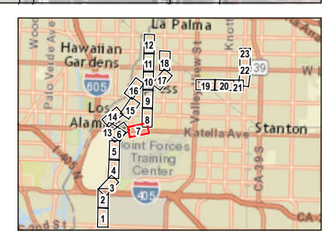
Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

School

Health Care Facility

Orange County Sanitation District
Sewer Mains and Manholes



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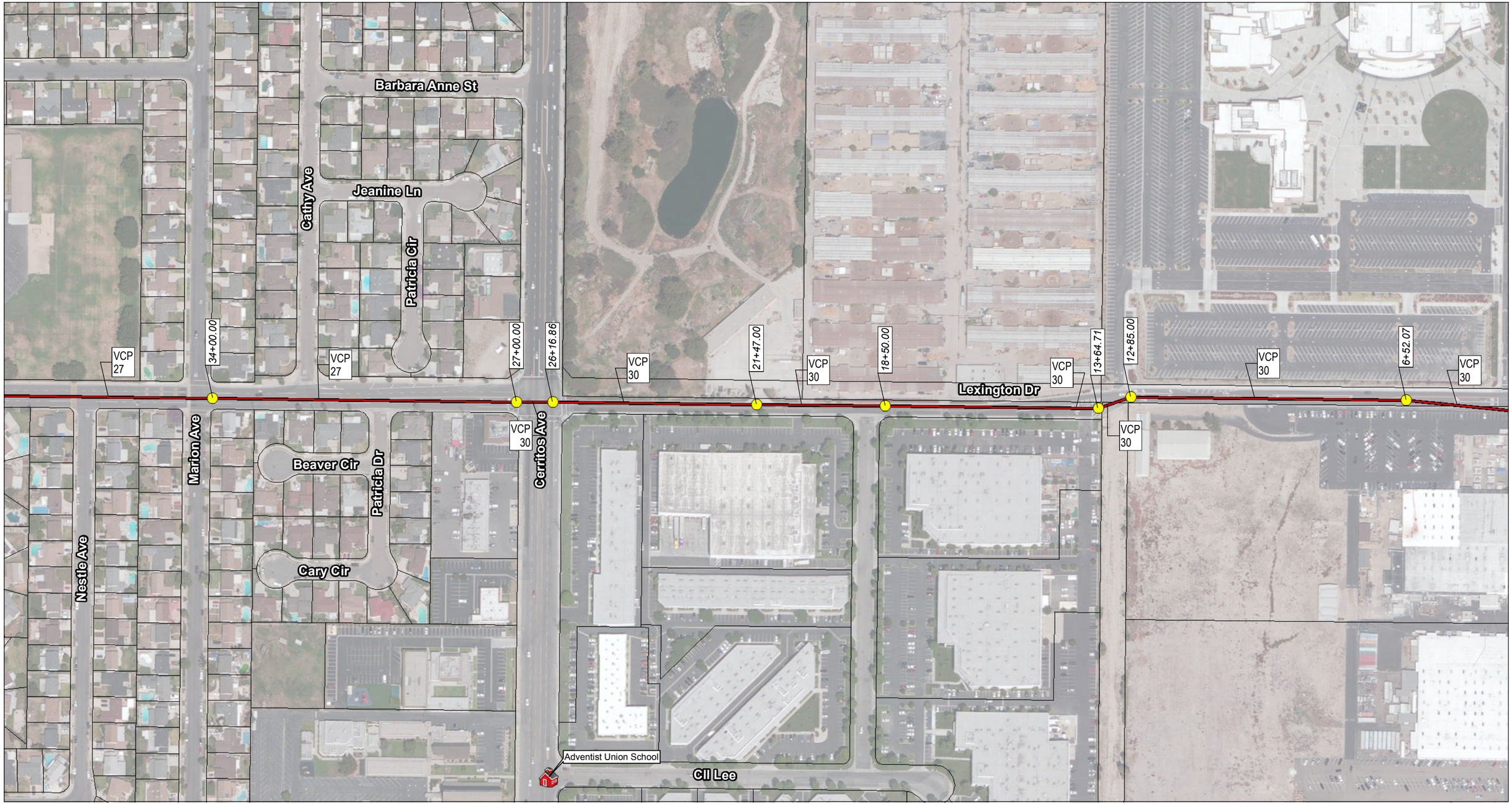


Map 8 of 23

NORTH

400 200 0 400 Feet

Westside Relief Interceptor (3-21-1 and 3-21-2)

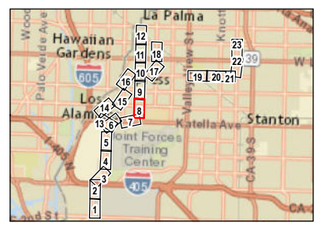
Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Ortano Ln
Tuscani Dr
Anzio Ct
Carrara Cir
Sorrento Dr
Barbara Anne St
Ave Granada
Novara Ln
Veterans Park
Workman Avenue Elementary
Chelsea Ct
Chantry Ct
Normandy Way
Silvretta Dr
66+00.03
61+50.00
55+69.00
55+28.75
53+78.75
51+05.85
47+75.20
42+69.07
40+00.00
El Rincon Elementary
VCP 24
VCP 21
VCP 27
Denni St
Carbon Creek
Myra Ave
Beaver Cir
Nestle Ave
Ave Mateo
Bell Rd
Larwin Ave
Dina Ct
Cary Cir
Ave Carmel
Via Linda
Via Largo
Via Majorca
Nature Park
Virgil Cir
Ave Monterey

Map 9 of 23

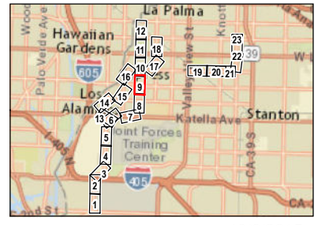
NORTH 400 200 0 400 Feet

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :
- DIV
- STD

Orange County Assessor Parcels (2013)
California Protected Areas Database Holdings
Stream or River
School

Orange County Sanitation District
Sewer Mains and Manholes



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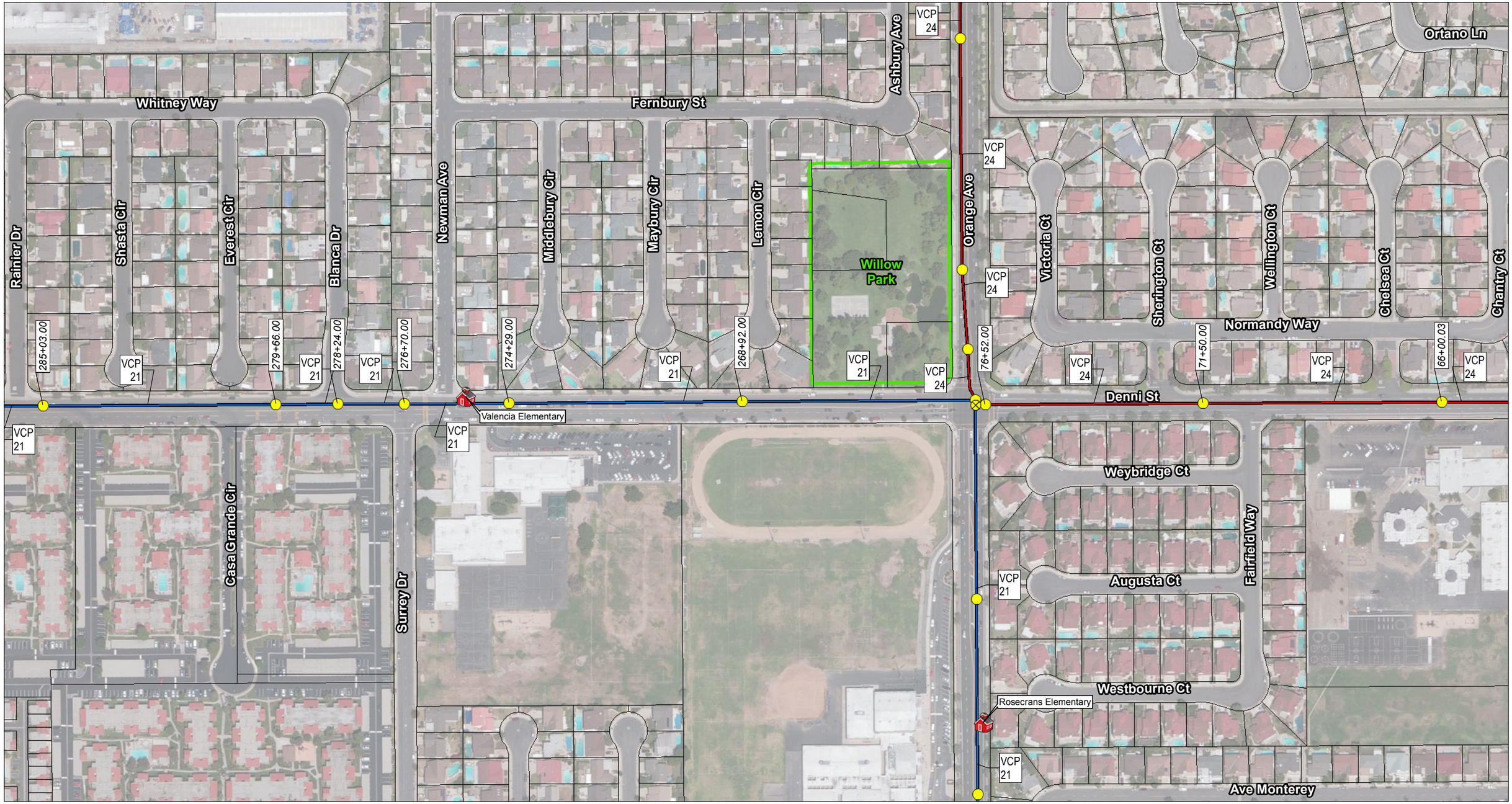


Map 10 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

DIV

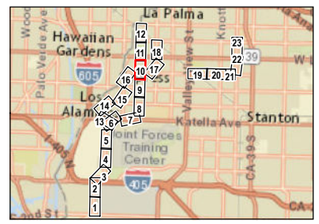
STD

Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

VCP 18
311+11.20
DIP 20
309+97.40
VCP 18
306+20.00
VCP 18
301+50.90
VCP 18
296+92.61
VCP 18
293+33.00
VCP 18
290+56.22
VCP 21
285+03.00
VCP 21
Lincoln Ave
Whitney Way
Rainier Dr
Shasta Cir
Ctr For Early Education
Moody Creek
Cypress Dr
Memory Ln
Lincoln Plaza Way

Map 11 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Manhole Type (Stationing Labeled) :

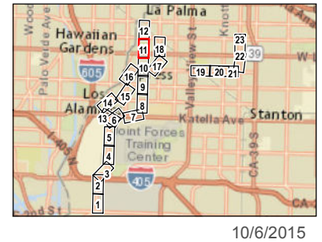
STD

Orange County Assessor Parcels (2013)

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manhole



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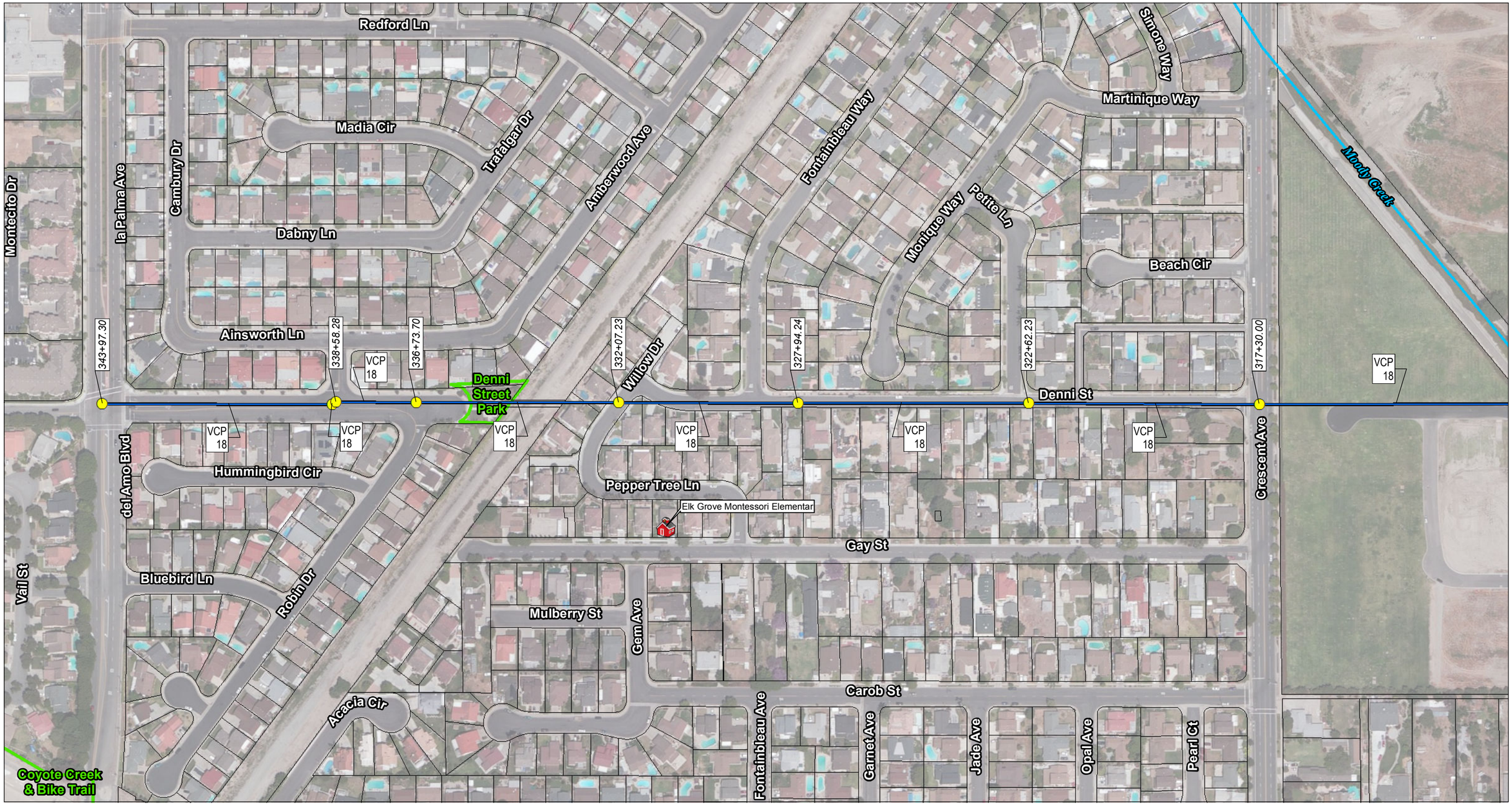


Map 12 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Manhole Type (Stationing Labeled) :

STD

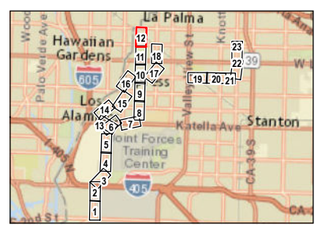
Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manholes



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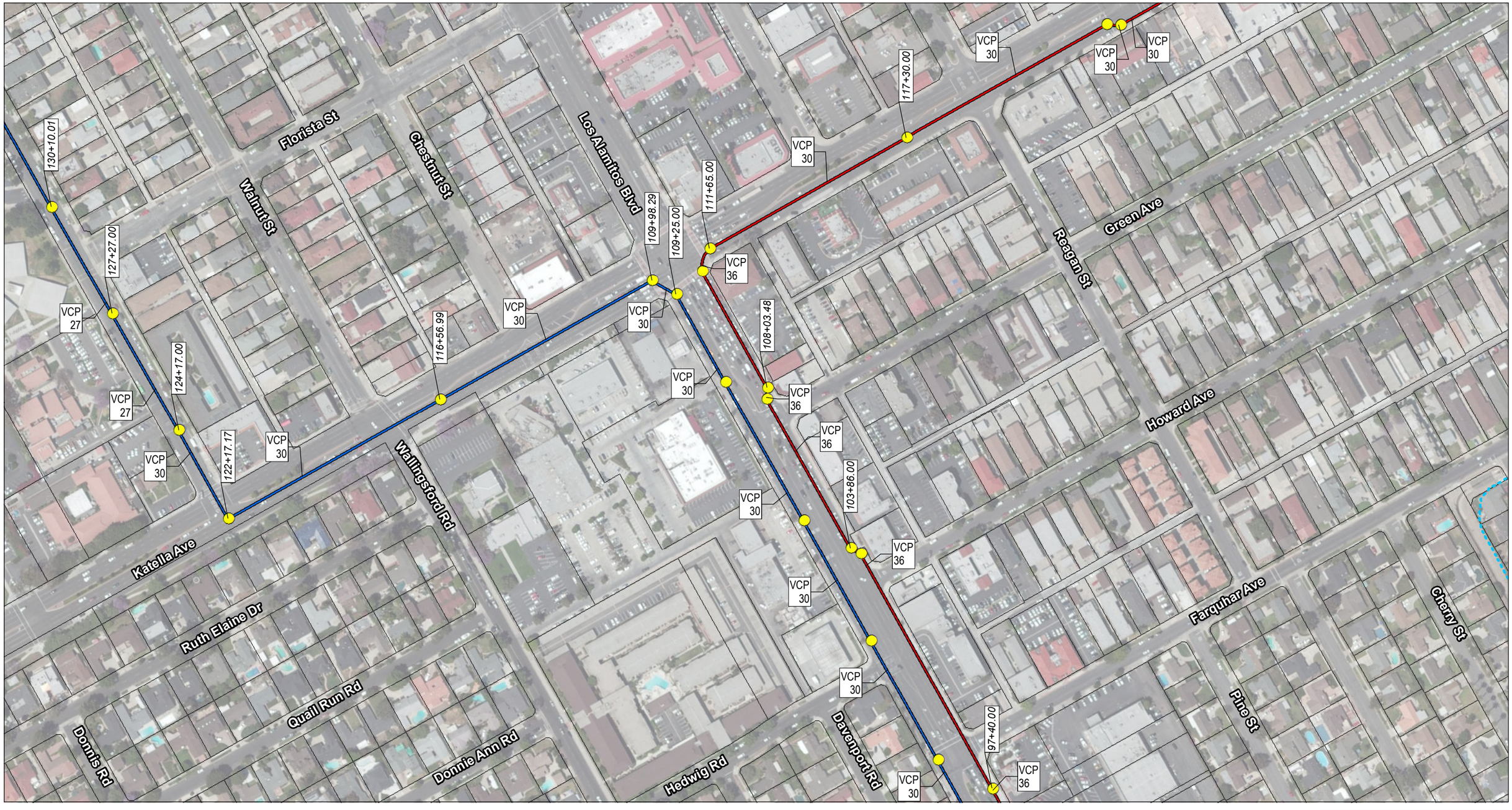


Map 13 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Westside Relief Interceptor (3-21-1 and 3-21-2)

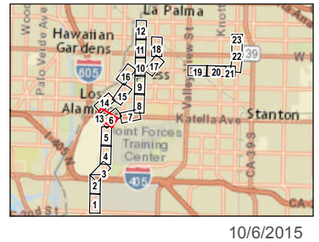
Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

Canal or Ditch

Orange County Sanitation District
Sewer Mains and Manholes



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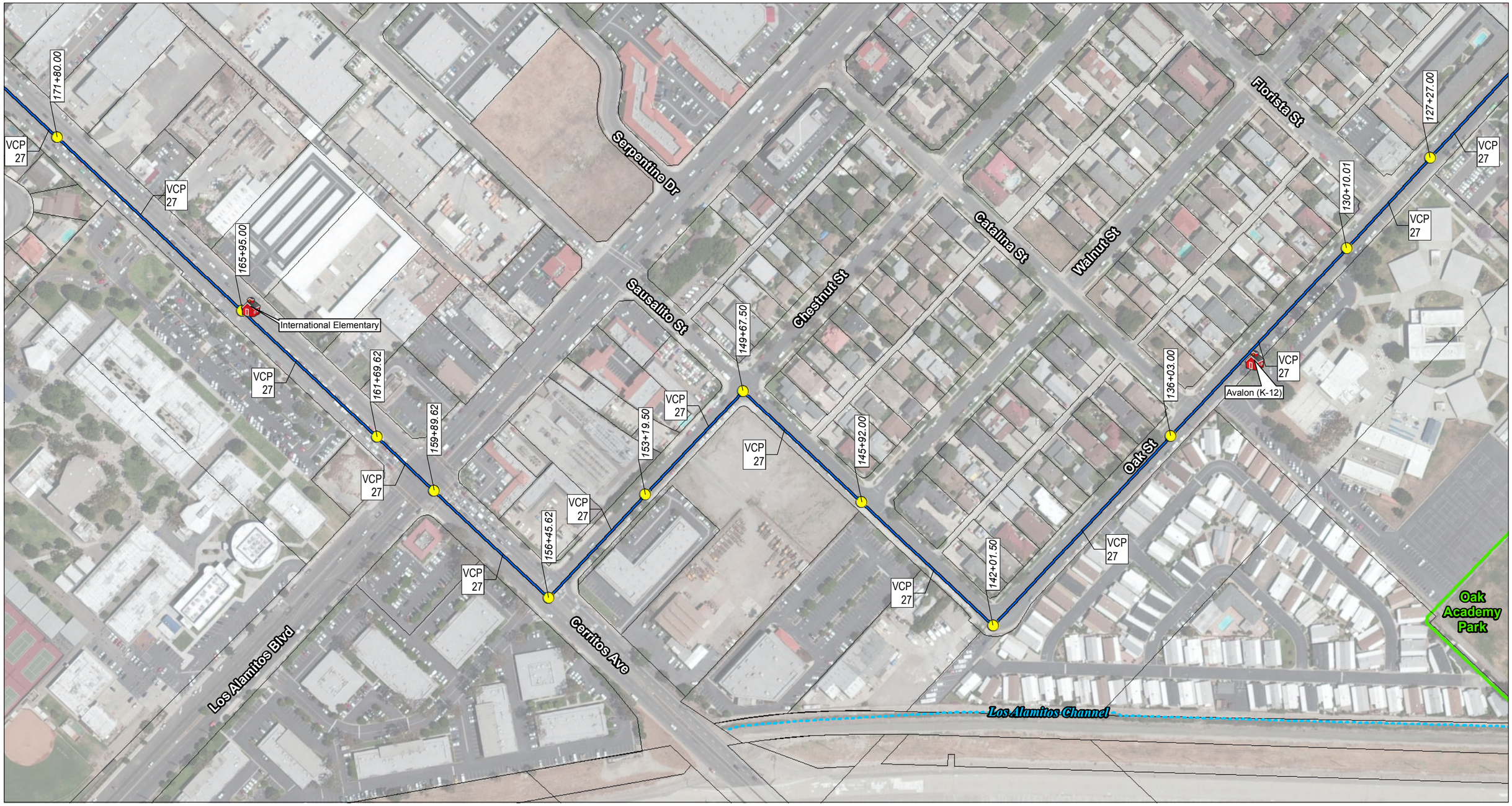


Map 14 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Manhole Type (Stationing Labeled) :

STD

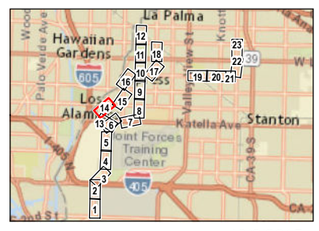
Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

Canal or Ditch

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 15 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manholes

10/6/2015

Map 16 of 23

NORTH

400 200 0 400 Feet

Los Alamitos Sub-trunk (3-8)

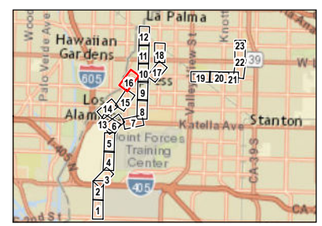
Manhole Type (Stationing Labeled) :

STD

Orange County Assessor Parcels (2013)

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 17 of 23

NORTH

400 200 0 400 Feet

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

STD

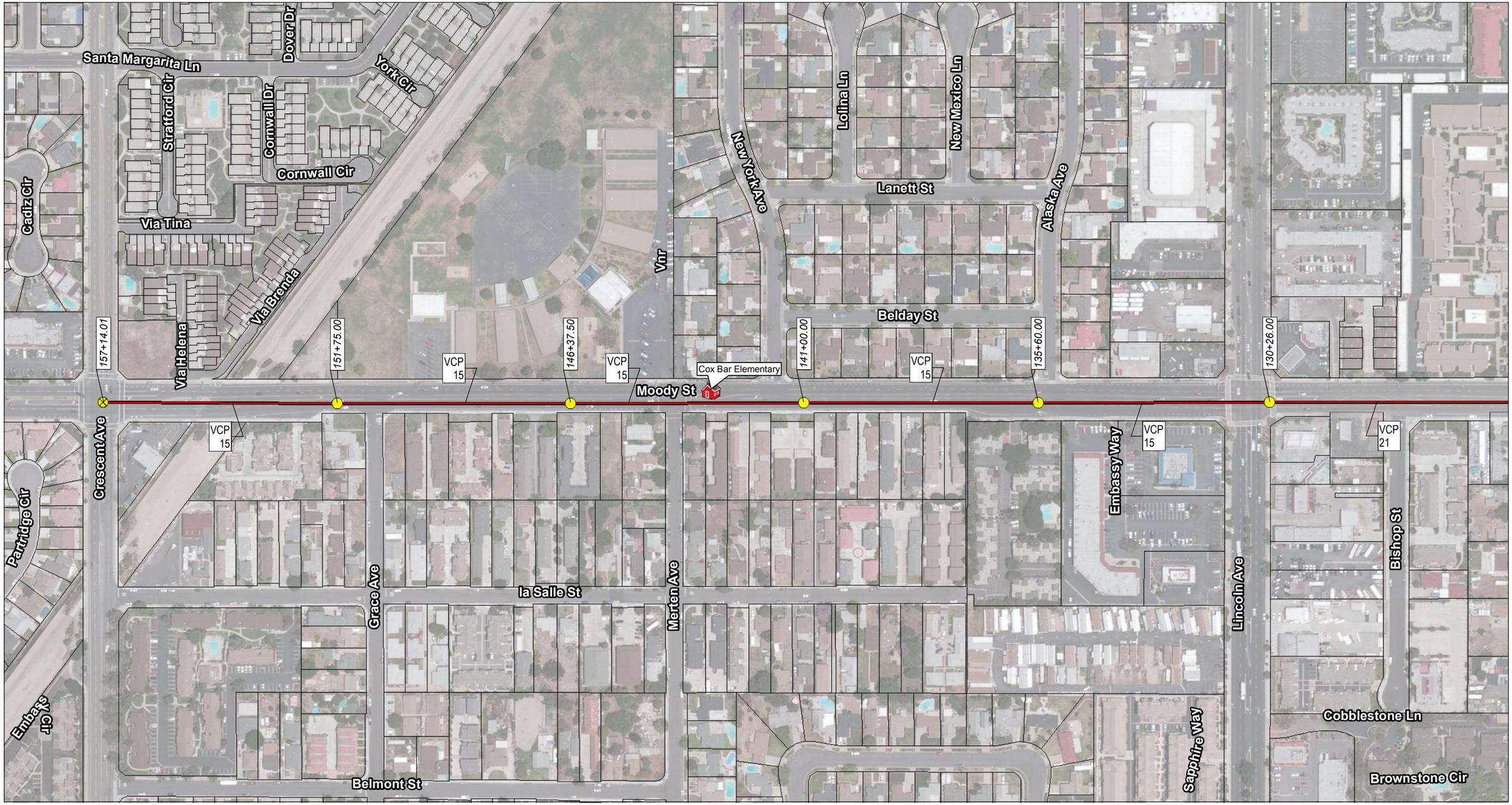
Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

School

Orange County Sanitation District
Sewer Mains and Manholes

10/6/2015



Map 18 of 23

NORTH

400 200 0 400 Feet

Westside Relief Interceptor (3-21-1 and 3-21-2)

Manhole Type (Stationing Labeled) :

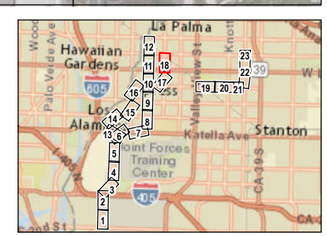
DIV

STD

Orange County Assessor Parcels (2013)

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 19 of 23

NORTH

400 200 0 400 Feet

Orange Western Sub-trunk (3-6)

Manhole Type (Stationing Labeled) :

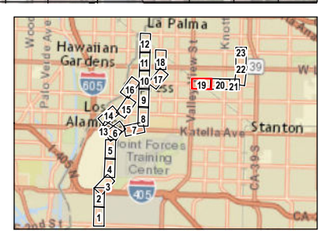
STD

Orange County Assessor Parcels (2013)

California Protected Areas Database Holdings

School

Orange County Sanitation District
Sewer Mains and Manholes



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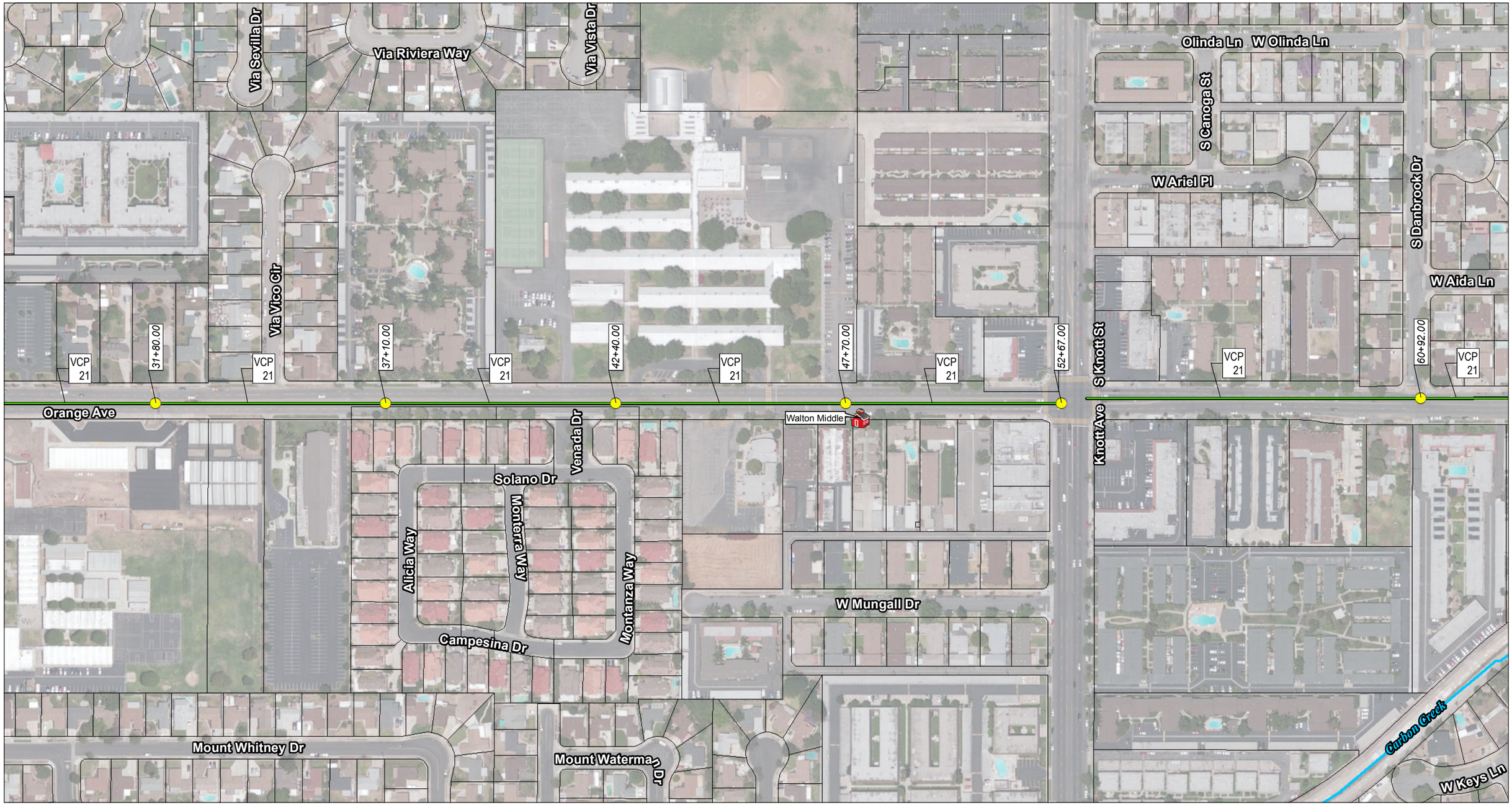


Map 20 of 23

NORTH

400 200 0 400 Feet

Orange Western Sub-trunk (3-6)

Manhole Type (Stationing Labeled) :

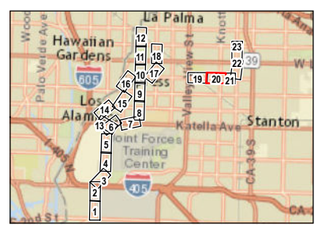
STD

Orange County Assessor Parcels (2013)

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 21 of 23

NORTH 400 200 0 400 Feet

Orange Western Sub-trunk (3-6)

Manhole Type (Stationing Labeled) :

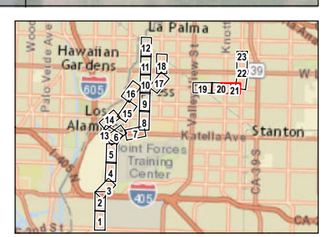
STD

Orange County Assessor Parcels (2013)

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Map 22 of 23

NORTH

400 200 0 400 Feet

Orange Western Sub-trunk (3-6)

Manhole Type (Stationing Labeled) :

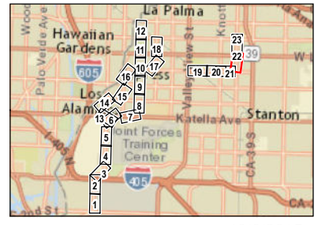
STD

Orange County Assessor Parcels (2013)

Stream or River

School

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

Haldor Pl
Jackson Way
W Coolidge Ave
W Monroe Ave
W Tyler Ave
W Polk Ave
139+58.00
138+15.00
132+74.33
128+73.00
125+80.00
124+71.00
118+09.00
115+17.00
112+36.00
108+68.50
108+08.80
VCP 21
Buena Park Nursing Ctr
Wood Canyon Elementary
Buchanan Cir
Garfield Cir
Grant Cir
Monroe Ave
Madison Ave
McKinley Cir
Madison Cir
Filmore Dr
Roosevelt Cir
Crescent Ave
Santa Valera St
Santa Elena Dr
Santa Domingo Way
Pierce Cir
Wilson Cir

Map 23 of 23

NORTH 400 200 0 400 Feet

Orange Western Sub-trunk (3-6)

Manhole Type (Stationing Labeled) :

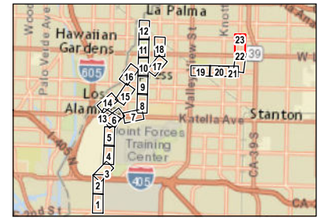
STD

Orange County Assessor Parcels (2013)

School

Health Care Facility

Orange County Sanitation District
Sewer Mains and Manholes



10/6/2015

APPENDIX A-3

COMMENT LETTERS

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STATE OF CALIFORNIA
Governor's Office of Planning and Research
State Clearinghouse and Planning Unit

Edmund G. Brown Jr.
Governor

Ken Alex
Director

Notice of Preparation

November 30, 2015

To: Reviewing Agencies

Re: Rehabilitation of Western Regional Sewers, Project No. 3-64
SCH# 2015111077

Attached for your review and comment is the Notice of Preparation (NOP) for the Rehabilitation of Western Regional Sewers, Project No. 3-64 draft Environmental Impact Report (EIR).

Responsible agencies must transmit their comments on the scope and content of the NOP, focusing on specific information related to their own statutory responsibility, within 30 days of receipt of the NOP from the Lead Agency. This is a courtesy notice provided by the State Clearinghouse with a reminder for you to comment in a timely manner. We encourage other agencies to also respond to this notice and express their concerns early in the environmental review process.

Please direct your comments to:

Daisy Covarrubias
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708-7018

with a copy to the State Clearinghouse in the Office of Planning and Research. Please refer to the SCH number noted above in all correspondence concerning this project.

If you have any questions about the environmental document review process, please call the State Clearinghouse at (916) 445-0613.

Sincerely,

Scott Morgan
Director, State Clearinghouse

Attachments
cc: Lead Agency

Document Details Report
State Clearinghouse Data Base

SCH# 2015111077
Project Title Rehabilitation of Western Regional Sewers, Project No. 3-64
Lead Agency Orange County Sanitation District

Type NOP Notice of Preparation

Description The Orange County Sanitation District is proposing to rehabilitate and/or replace entire lengths of the Orange Western Sub-Trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, and the Seal Beach Interceptor regional pipelines. In addition to pipeline and manhole replacement and/or rehabilitation, the proposed project also includes rehabilitation/replacement of the Westside Pump Station force main, reconstruction of the Westside Pump Station wet well, and construction of a new vent line from the wet well to the downstream manhole or construction of an odor control scrubber.

Lead Agency Contact

Name Daisy Covarrubias
Agency Orange County Sanitation District
Phone (714) 593-7119 **Fax**
email
Address 10844 Ellis Avenue
City Fountain Valley **State** CA **Zip** 92708-7018

Project Location

County Orange
City Seal Beach, La Palma, Los Alamitos
Region
Cross Streets Various
Lat / Long
Parcel No. Various
Township **Range** **Section** **Base**

Proximity to:

Highways Hwy 1, 22, 39
Airports Los Alimitos Army Air Field
Railways
Waterways Moody & Carbon Creeks, Bixby Channel, Federal Channel...
Schools Various
Land Use Various: Transportation, Residential, Cemetery, Open Space/Recreation, Public/Semi-Public, Commercial

---

Project Issues Aesthetic/Visual; Agricultural Land; Air Quality; Archaeologic-Historic; Biological Resources; Coastal Zone; Drainage/Absorption; Economics/Jobs; Flood Plain/Flooding; Forest Land/Fire Hazard; Geologic/Seismic; Minerals; Noise; Population/Housing Balance; Public Services; Recreation/Parks; Schools/Universities; Sewer Capacity; Soil Erosion/Compaction/Grading; Solid Waste; Toxic/Hazardous; Traffic/Circulation; Vegetation; Water Quality; Water Supply; Wetland/Riparian; Landuse; Cumulative Effects

---

Reviewing Agencies Resources Agency; Department of Parks and Recreation; Department of Water Resources; Department of Fish and Wildlife, Region 5; Office of Emergency Services, California; Native American Heritage Commission; State Lands Commission; Caltrans, Division of Aeronautics; California Highway Patrol; Caltrans, District 12; Air Resources Board; State Water Resources Control Board, Divison of Financial Assistance; State Water Resources Control Board, Division of Water Rights; Department of Toxic Substances Control; Regional Water Quality Control Board, Region 8

Note: Blanks in data fields result from insufficient information provided by lead agency.

Document Details Report
State Clearinghouse Data Base

Date Received 11/30/2015 ***Start of Review*** 11/30/2015 ***End of Review*** 12/29/2015

Note: Blanks in data fields result from insufficient information provided by lead agency.

NOP Distribution List

County: Orange CR

SCH# 2015111077

Resources Agency

- [■] **Resources Agency**
  Nadell Gayou
- [ ] **Dept. of Boating & Waterways**
  Denise Peterson
- [ ] **California Coastal Commission**
  Elizabeth A. Fuchs
- [ ] **Colorado River Board**
  Lisa Johansen
- [ ] **Dept. of Conservation**
  Elizabeth Carpenter
- [ ] **California Energy Commission**
  Eric Knight
- [ ] **Cal Fire**
  Dan Foster
- [ ] **Central Valley Flood Protection Board**
  James Herota
- [ ] **Office of Historic Preservation**
  Ron Parsons
- [■] **Dept of Parks & Recreation**
  Environmental Stewardship Section
- [ ] **California Department of Resources, Recycling & Recovery**
  Sue O'Leary
- [ ] **S.F. Bay Conservation & Dev't. Comm.**
  Steve McAdam
- [▨] **Dept. of Water Resources**
  Resources Agency
  Nadell Gayou

Fish and Game

- [ ] **Depart. of Fish & Wildlife**
  Scott Flint
  Environmental Services Division
- [ ] **Fish & Wildlife Region 1**
  Curt Babcock
- [ ] **Fish & Wildlife Region 1E**
  Laurie Harnsberger
- [ ] **Fish & Wildlife Region 2**
  Jeff Drongesen
- [ ] **Fish & Wildlife Region 3**
  Charles Armor
- [ ] **Fish & Wildlife Region 4**
  Julie Vance
- [▨] **Fish & Wildlife Region 5**
  Leslie Newton-Reed
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6**
  Tiffany Ellis
  Habitat Conservation Program
- [ ] **Fish & Wildlife Region 6 I/M**
  Heidi Calvert
  Inyo/Mono, Habitat Conservation Program
- [ ] **Dept. of Fish & Wildlife M**
  George Isaac
  Marine Region

Other Departments

- [ ] **Food & Agriculture**
  Sandra Schubert
  Dept. of Food and Agriculture
- [ ] **Depart. of General Services**
  Public School Construction
- [ ] **Dept. of General Services**
  Anna Garbeff
  Environmental Services Section
- [ ] **Delta Stewardship Council**
  Kevan Samsam
- [ ] **Housing & Comm. Dev.**
  CEQA Coordinator
  Housing Policy Division

Independent Commissions,Boards

- [ ] **Delta Protection Commission**
  Michael Machado
- [▨] **OES (Office of Emergency Services)**
  Marcia Scully
- [■] **Native American Heritage Comm.**
  Debbie Treadway
- [ ] **Public Utilities Commission**
  Supervisor
- [ ] **Santa Monica Bay Restoration**
  Guangyu Wang
- [▨] **State Lands Commission**
  Jennifer Deleong
- [ ] **Tahoe Regional Planning Agency (TRPA)**
  Cherry Jacques

Cal State Transportation Agency CalSTA

- [▨] **Caltrans - Division of Aeronautics**
  Philip Crimmins
- [ ] **Caltrans – Planning HQ LD-IGR**
  Terri Pencovic
- [▨] **California Highway Patrol**
  Suzann Ikeuchi
  Office of Special Projects

Dept. of Transportation

- [ ] **Caltrans, District 1**
  Rex Jackman
- [ ] **Caltrans, District 2**
  Marcelino Gonzalez
- [ ] **Caltrans, District 3**
  Eric Federicks – South
  Susan Zanchi - North
- [ ] **Caltrans, District 4**
  Patricia Maurice
- [ ] **Caltrans, District 5**
  Larry Newland
- [ ] **Caltrans, District 6**
  Michael Navarro
- [ ] **Caltrans, District 7**
  Dianna Watson
- [ ] **Caltrans, District 8**
  Mark Roberts
- [ ] **Caltrans, District 9**
  Gayle Rosander
- [ ] **Caltrans, District 10**
  Tom Dumas
- [ ] **Caltrans, District 11**
  Jacob Armstrong
- [▨] **Caltrans, District 12**
  Maureen El Harake

Cal EPA

Air Resources Board

- [■] All Other Projects
  Cathi Slaminski
  - [ ] Transportation Projects
    Nesamani Kalandiyur
  - [ ] Industrial/Energy Projects
    Mike Tollstrup
- [▨] **State Water Resources Control Board**
  Regional Programs Unit
  Division of Financial Assistance
- [ ] **State Water Resources Control Board**
  Karen Larsen
  Division of Drinking Water
- [ ] **State Water Resources Control Board**
  Student Intern, 401 Water Quality Certification Unit
  Division of Water Quality
- [▨] **State Water Resouces Control Board**
  Phil Crader
  Division of Water Rights
- [▨] **Dept. of Toxic Substances Control**
  CEQA Tracking Center
- [ ] **Department of Pesticide Regulation**
  CEQA Coordinator

Regional Water Quality Control Board (RWQCB)

- [ ] **RWQCB 1**
  Cathleen Hudson
  North Coast Region (1)
- [ ] **RWQCB 2**
  Environmental Document Coordinator
  San Francisco Bay Region (2)
- [ ] **RWQCB 3**
  Central Coast Region (3)
- [ ] **RWQCB 4**
  Teresa Rodgers
  Los Angeles Region (4)
- [ ] **RWQCB 5S**
  Central Valley Region (5)
  - [ ] **RWQCB 5F**
    Central Valley Region (5)
    Fresno Branch Office
  - [ ] **RWQCB 5R**
    Central Valley Region (5)
    Redding Branch Office
- [ ] **RWQCB 6**
  Lahontan Region (6)
  - [ ] **RWQCB 6V**
    Lahontan Region (6)
    Victorville Branch Office
- [ ] **RWQCB 7**
  Colorado River Basin Region (7)
- [▨] **RWQCB 8**
  Santa Ana Region (8)
- [ ] **RWQCB 9**
  San Diego Region (9)

- [ ] **Other** _____

_____

_____

- [ ] _____
  Conservancy

Last Updated 6/23/2015

COX CASTLE NICHOLSON

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2029 Century Park East, Suite 2100
Los Angeles, California 90067-3284
P: 310.284.2200 F: 310.284.2100

David P. Waite
310.284.2218
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File No. 74277

December 23, 2015

Via Certified Mail – Return Receipt Requested

Daisy Covarrubias, Senior Staff Analyst
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, California 92708-7018

Re: **Forest Lawn Memorial-Park Association Comments on Notice of Preparation/Initial Study for Rehabilitation of Western Regional Sewers, Project No. 3-64**

Dear Ms. Covarrubias:

Thank you for the opportunity to review the Notice of Preparation/Initial Study ("NOP/IS") for an Environmental Impact Report ("EIR") for Rehabilitation of the Western Regional Sewers, Project No. 3-64. On behalf of Forest Lawn Memorial-Park Association ("Forest Lawn"), we submit the following comments.

Forest Lawn

Forest Lawn is a major operator of cemeteries and mortuaries, providing important interment and related services for hundreds of thousands of California families. Forest Lawn operates a cemetery located at 4471 Lincoln Avenue in Cypress. Due to the sensitive nature of its business, Forest Lawn requires a peaceful and serene setting surrounded by natural beauty. Its lawns and tree-lined vistas are important features of the property and major reasons why people choose to inter their loved ones at the Forest Lawn-Cypress cemetery. Funeral services, often of a religious nature, are regularly conducted on-site and people visiting the gravesites of their family and friends require a tranquil setting for quiet contemplation. It is important to Forest Lawn that the privacy of the families who use their services be respected and protected.

Forest Lawn appreciates the work of Orange County Sanitation District and its need to modernize and upgrade its facilities. However, Forest Lawn is deeply concerned about

the potential impacts of this Project to its infrastructure, facilities, and its need to provide a quiet setting for its visitors.

Project Description

Orange County Sanitation District is proposing to rehabilitate and/or replace the entire length of its Western Regional Sewers, to replace its Westside Pump Station wet well, and to replace or rehabilitate its existing force main and install either an air jumper or an air scrubber to improve odor control.

The NOP/IS indicates that the sewer within Forest Lawn is under capacity and will need to be replaced on a parallel alignment, possibly requiring removal of mature trees in the cemetery near the main entrance. The proposed line traverses the cemetery maintenance yard, the main access route to the cemetery, and a lawn where there is potential for interment.

The NOP/IS indicates that all work would be within the existing easement, which was granted in 1959, one year after the cemetery was established. Substantial development has occurred within the cemetery in the past 50 years. Forest Lawn now has extensive infrastructure within the subterranean corridor underneath the cemetery roads, which are narrow as compared to public streets. In addition to the existing sewer line, the cemetery roads already contain two water distribution systems: a potable line providing domestic water to the cemetery facilities; and a recycled irrigation line. Little space is available for a second, parallel sewer line to replace the existing sewer within the existing corridor. Forest Lawn requests that the EIR describe the alignment of the new sewer line and its impacts to existing infrastructure within cemetery roads.

The Project proposes to utilize trenchless construction methods at several locations, but not within the cemetery. The NOP/IS acknowledges that trenchless construction methods such as pipe bursting, micro-tunneling or directional drilling result in shorter construction duration and fewer pieces of construction equipment, thereby causing fewer impacts than open-cut construction. Due to the sensitive nature of cemetery operations, Forest Lawn should receive equal consideration with Denni Street Park in terms of the use of construction techniques necessary to minimize disruption of facility use.

Lastly, standard cemetery operations protocol will need to be considered in designing the project and preparing the design specifications.

Aesthetics

The NOP/IS finds that there are no potentially significant impacts of the Project to aesthetics. Despite this conclusion, the NOP/IS acknowledges that the Project will result in temporary visual impacts due to the presence of heavy machinery and construction activities, and states that these construction impacts will be evaluated in the EIR and mitigation measures may be required.

Forest Lawn requests that the EIR evaluate temporary aesthetic impacts to the cemetery from construction activities. Forest Lawn is concerned about the impact views of heavy equipment and construction activities may have to its patrons attending services, interments, and visiting gravesites. Forest Lawn is also concerned that the loss of mature trees may impact views from the cemetery that contribute to the peaceful, natural setting Forest Lawn promises to its users.

The EIR must consider all feasible mitigation to reduce potentially significant impacts to aesthetics, including use of trenchless technology for construction within the cemetery, avoidance of impacts to mature trees in and around the cemetery property, and prohibiting construction within the cemetery property during operating hours. Use of trenchless technology would avoid disrupting cemetery operations and should also avoid removal of mature existing trees. Removal of mature trees near the cemetery is an impact to cemetery operations that needs to be analyzed, preferably avoided, and mitigated. For any work completed during operating hours, Forest Lawn would require mitigation measures to reduce the impact to services and the public visiting interment spaces.

Biological Resources

The NOP/IS finds that there are no potentially significant impacts to biological resources. We disagree. The NOP/IS acknowledges that any trimming or removal of mature trees within or adjacent to the cemetery requires analysis and mitigation. Forest Lawn requests that the EIR consider avoidance of impacts to mature trees, potentially through the use of trenchless technology, as mitigation for impacts to biological resources.

Geology/Soils

The NOP/IS finds that there are potentially significant impacts to geology/soils. We agree. Forest Lawn has been challenged itself by the sandy soils on-site. The EIR must evaluate impacts of the Project to geology/soils due to the sandy soils on and around the cemetery property.

Hydrology/Water Quality

The NOP/IS finds that there are no potentially significant impacts to hydrology/water quality. We disagree. High groundwater levels exist in and around the cemetery. The EIR must conduct a thorough analysis to ensure that perched groundwater zones are not encountered, and if they are encountered, that appropriate mitigation is imposed.

Noise

The NOP/IS finds that the Project may result in potentially significant noise impacts. We agree. The NOP/IS acknowledges that the Project has the potential to create

temporary noise increases through construction equipment usage and vehicle trips generated by construction works and supply/haul trucks.

The EIR must consider all feasible mitigation to reduce potentially significant noise impacts, including use of trenchless technology for construction within the cemetery and prohibiting construction within the cemetery property during operating hours. Use of trenchless technology would avoid disrupting cemetery operations and should greatly reduce noise impacts to the sensitive receptors attending services and visiting gravesites. For any work completed during operating hours, Forest Lawn would require mitigation measures to reduce the impact to services and the public visiting interment spaces.

Transportation/Traffic

The NOP/IS finds that there are potentially significant impacts to transportation/traffic. We agree. In addition to impacts to public streets where construction is proposed, Forest Lawn requests that the EIR consider impacts to cemetery access and traffic on its roads.

Depending on timing, construction of the Project could occur concurrently with Forest Lawn's development of a new mausoleum and gardens. The EIR must analyze the potential impacts of concurrent construction activities with planned development at the cemetery.

The EIR must consider all feasible mitigation to reduce potentially significant impacts to traffic, including use of trenchless technology for construction within the cemetery and prohibiting construction within the cemetery property during operating hours. Use of trenchless technology would avoid disrupting cemetery operations and should also avoid impacts to cemetery access routes and vehicular use.

Project Alternatives

Forest Lawn requests that the EIR consider the following project alternatives:

- An alternative project that would not traverse the cemetery property;
- An alternative project that would follow a less intrusive alignment through the cemetery property;
- An alternative project that would replace the existing sewer line through the cemetery property on the same alignment and grade as the existing sewer, in which case the existing line would be upsized using trenchless technology (potentially by grinding out the old line and replacing it with the new, larger line); and

- An alternative project that would rehabilitate the existing sewer in-place (potentially by relining), and construct an additional parallel sewer line around the cemetery to provide any required increase in flow capacity.

We appreciate the opportunity to comment on the NOP/IS and we look forward to reviewing a Draft EIR that adequately addresses the issues identified herein. In the meantime, please add us to the distribution list for all notices, publications and other correspondence or updates regarding the Draft EIR and the Project.

Sincerely,

David P. Waite

DPW/lh

cc: Lisa Patricio

Los Alamitos Unified School District

AUXILIARY and SUPPORT SERVICES

10652 Reagan Street • Los Alamitos, California 90720-2429
(562) 799-4592 • Fax (562) 799-4599

Sherry Kropp, Ed.D.
Superintendent

John G. Eclevia, Director
Facilities, Maintenance, Operations and Transportation

December 21, 2015

Ms. Daisy Covarrubias
Orange County Sanitation District
10844 Ellis Ave
Fountain valley, CA 92708-7018

RE: Notice of preparation of an Environmental Impact Report (EIR) for the Rehabilitation of Western Regional Sewers, Project No. 3-64

Dear Ms. Covarrubias:

The Los Alamitos Unified School District ("District") appreciates the opportunity to comment on the Orange County Sanitation District's (OCSD) Notice of Preparation ("NOP") for the Rehabilitation of Western Regional Sewers, Project No. 3-64 ("Project"). The NOP contains an Initial Study ("IS") that describes the Project and the OCSD's preliminary analysis of the Project's potential impacts on the environment including an identification of the impacts to be addressed in the Draft Environmental Impact Report ("DEIR").

We trust the OCSD is planning an EIR that makes a comprehensive evaluation of the Project and its potential impacts on the environment, including many special studies. The District is particularly interested in seeing that the analysis in the DEIR adequately addresses the potentially significant impacts that the Project may have on schools, such as noise, traffic and student safety. Since the construction passes within feet of our schools, the noise levels within the classroom will be affected. Studies have shown that noise has a detrimental impact on student learning. As such, the DEIR should properly analyze and propose appropriate mitigation efforts.

As was mentioned at the scoping meeting that was held on Wednesday, December 16, traffic around our schools peaks around the start and dismissal times of each individual school site. OCSD should take this into account in preparing the DEIR in order to mitigate and minimize the impact on traffic in and around the school sites located along the Project. This traffic includes vehicular, school bus and heavy pedestrian traffic. As such, the OCSD should provide mitigation of traffic hazards and a plan for the safe arrival and departure of students in accordance with the "School Area Pedestrian Safety" manual published by the California Department of Transportation.

Once again, the District thanks the OCSD for the opportunity to comment on the NOP. The District formally requests to be included on the distribution list for the DEIR, as well as all other OCSD projects. We look forward to reviewing the DEIR and trust that our participation in the environmental review of the Project will ensure that the Project's impacts on the environment, as well as the District schools, are adequately addressed. You may contact me at (562) 799-4592 ext. 81116 to discuss these comments further.

Thank you,

John G. Eclevia
Director-of Facilities, Maintenance, Operations &Transportation

DEPARTMENT OF TRANSPORTATION
DISTRICT 12
3347 MICHELSON DRIVE, SUITE 100
IRVINE, CA 92612-8894
PHONE (949) 724-2000
FAX (949) 724-2019
TTY 711
www.dot.ca.gov

Serious Drought.
Serious drought.
Help save water!

December 24, 2015

Ms. Daisy Covarrubias
City of Fountain Valley
10844 Ellis Avenue
Fountain Valley, CA 92708

File: IGR/CEQA
SCH: 2015111077
IGR Log: 4574
I-405 & SR-22

Dear Ms. Covarrubias:

Thank you for the opportunity to review and comment on the **Notice of Preparation (NOP) for** the **Rehabilitation of Western Regional Sewers, Project No.3-64 Draft Environmental Impact Report (EIR) in the City of Fountain Valley.** The Orange County Sanitation District is proposing to rehabilitate and/or replace entire lengths of the Orange Western Sub-Trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, and the Seal Beach Interceptor regional pipelines (within I-405 right of way). In addition to pipeline and manhole replacement and/or rehabilitation, the proposed project also includes rehabilitation/replacement of the Westside Pump Station force main, reconstruction of the Westside Pump Station wet well, and construction of a new vent line from the wet well to the downstream manhole or construction of an odor control scrubber. The nearest state route to the project sites are I-405 and SR-22.

Caltrans is a responsible and commenting agency on this project and has the following comment:

- Any project work proposed in the vicinity of the State right of way would require an encroachment permit and all environmental concerns must be adequately addressed. If the environmental documentation for the project does not meet Caltrans' requirements, additional documentation would be required before approval of the encroachment permit. Please coordinate with Caltrans to meet requirements for any work within or near State right of way. All entities other than Caltrans working within State right of way must obtain an Encroachment Permit prior to commencement of work. When applying for Encroachment Permit, please incorporate Environmental Documentation, SWPPP/ WPCP, Hydraulic Calculations, Traffic Control Plans, Geotechnical Analysis, R/W certification and all relevant design details including design exception approvals. For specific details for Encroachment Permits procedure, please refer to the Caltrans Encroachment Permits Manual. The latest edition of the Manual is available on the web site: http://www.dot.ca.gov/hq/traffops/developserv/permits/

Please continue to keep us informed of this project and any future developments that could potentially impact State transportation facilities. If you have any questions or need to contact us, please do not hesitate to call Maryam Molavi at (949) 724-2241.

Sincerely,

Maryam Malami for,

MAUREEN EL HARAKE
Branch Chief, Regional-Community-Transit Planning
District 12

CALIFORNIA
Water Boards

EDMUND G. BROWN JR.
GOVERNOR

MATTHEW RODRIQUEZ
SECRETARY FOR
ENVIRONMENTAL PROTECTION

State Water Resources Control Board

DEC 2 2 2015

Daisy Covarrubias
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

Dear Ms. Covarrubias:

NOTICE OF PREPARATION (NOP) FOR ORANGE COUNTY SANITATION DISTRICT (DISTRICT); REHABILITATION OF WESTERN REGIONAL SEWERS, PROJECT NO. 3-64 (PROJECT); ORANGE COUNTY; STATE CLEARINGHOUSE NO. 201511077

We understand that the District may be pursuing Clean Water State Revolving Fund (CWSRF) financing for this Project. As a funding agency and a state agency with jurisdiction by law to preserve, enhance, and restore the quality of California's water resources, the State Water Resources Control Board (State Water Board) is providing the following information on the preparation of the California Environmental Quality Act (CEQA) for the Project.

The State Water Board, Division of Financial Assistance, is responsible for administering the CWSRF Program. The primary purpose for the CWSRF Program is to implement the Clean Water Act and various state laws by providing financial assistance for wastewater treatment facilities necessary to prevent water pollution, recycle water, correct nonpoint source and storm drainage pollution problems, provide for estuary enhancement, and thereby protect and promote health, safety and welfare of the inhabitants of the state. The CWSRF Program provides low-interest funding equal to one-half of the most recent State General Obligation Bond Rates with a 30-year term. Applications are accepted and processed continuously. Please refer to the State Water Board's CWSRF website at:
www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/index.shtml.

The CWSRF Program is partially funded by the United States Environmental Protection Agency and requires additional "CEQA-Plus" environmental documentation and review. Three enclosures are included that further explain the CWSRF Program environmental review process and the additional federal requirements. For the complete environmental application package please visit:
http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml. The State Water Board is required to consult directly with agencies responsible for implementing federal environmental laws and regulations. Any environmental issues raised by federal agencies or their representatives will need to be resolved prior to State Water Board approval of a CWSRF financing commitment for the proposed Project. For further information on the CWSRF Program, please contact Mr. Ahmad Kashkoli, at (916) 341-5855.

C. Protection of Wetlands: Identify any portion of the proposed Project area that should be evaluated for wetlands or United States waters delineation by the United States Army Corps of Engineers (USACE), or requires a permit from the USACE, and identify the status of coordination with the USACE.

D. Compliance with the Farmland Protection Policy Act: Identify whether the Project will result in the conversion of farmland. State the status of farmland (Prime, Unique, or Local and Statewide Importance) in the Project area and determine if this area is under a Williamson Act Contract.

E. Compliance with the Migratory Bird Treaty Act: List any birds protected under this act that may be impacted by the Project and identify conservation measures to minimize impacts.

F. Compliance with the Flood Plain Management Act: Identify whether or not the Project is in a Flood Management Zone and include a copy of the Federal Emergency Management Agency flood zone maps for the area.

G. Compliance with the Wild and Scenic Rivers Act: Identify whether or not any Wild and Scenic Rivers would be potentially impacted by the Project and include conservation measures to minimize such impacts.

Following the preparation of the draft CEQA document for the Project, please provide us a copy of the document to review if the District's is considering CWSRF financing. In addition, we would appreciate notices of any hearings or meetings held regarding environmental review for the Project.

Thank you for the providing us a copy of your NOP, and the consideration of the CWSRF for the financing of the District's Project. If you have any questions or concerns, please feel free to contact me at (916) 341-5686, or by email at Amanda.Dwyer@waterboards.ca.gov, or contact Ahmad Kashkoli at (916) 341-5855, or by email at Ahmad.Kashkoli@waterboards.ca.gov.

Sincerely,

Amanda Dwyer

Amanda Dwyer
Environmental Scientist

cc: State Clearinghouse
(Re: SCH# 201511077)
P.O. Box 3044
Sacramento, CA 95812-3044

CLEAN WATER STATE REVOLVING FUND

California Environmental Quality Act Requirements

State Water Resources Control Board
Division of Financial Assistance

The State Water Resources Control Board (State Water Board), Division of Financial Assistance, administers the Clean Water State Revolving Fund (CWSRF) Program. The CWSRF Program is partially funded by grants from the United States Environmental Protection Agency. All applicants seeking CWSRF financing must comply with the California Environmental Quality Act (CEQA), and provide sufficient information so that the State Water Board can document compliance with federal environmental laws. The "Environmental Package" provides the forms and instructions needed to complete the environmental review requirements for CWSRF Program financing. It is available at:

http://www.waterboards.ca.gov/water_issues/programs/grants_loans/srf/srf_forms.shtml

LEAD AGENCY

The applicant is usually the "Lead Agency" and must prepare and circulate an environmental document before approving a project. Only a public agency, such as a local, regional or state government, may be the "Lead Agency" under CEQA. If a project will be completed by a non-governmental organization, "Lead Agency" responsibility goes to the first public agency providing discretionary approval for the project.

RESPONSIBLE AGENCY

The State Water Board is generally a "Responsible Agency" under CEQA. As a "Responsible Agency," the State Water Board must make findings based on information provided by the "Lead Agency" before financing a project.

ENVIRONMENTAL REVIEW

The State Water Board's environmental review of the project's compliance with both CEQA and federal cross-cutting regulations must be completed before a project can be financed by the CWSRF Program.

DOCUMENT REVIEW

Applicants are encouraged to consult with State Water Board staff early during preparation of CEQA document if considering CWSRF financing. Applicants shall also send their environmental documents to the State Water Board, Environmental Review Unit during the CEQA public review period. This way, any environmental concerns can be addressed early in the process.

REQUIRED DOCUMENTS

The Environmental Review Unit requires the documents listed below to make findings and complete its environmental review. Once the State Water Board receives all the required documents and makes its own findings, the environmental review for the project will be complete.

- ✓ Draft and Final Environmental Documents: Environmental Impact Report, Negative Declaration, and Mitigated Negative Declaration as appropriate to the project
- ✓ Resolution adopting/certifying the environmental document, making CEQA findings, and approving the project
- ✓ All comments received during the public review period and the "Lead Agency's" responses to those comments
- ✓ Adopted Mitigation Monitoring and Reporting Plan, if applicable
- ✓ Date-stamped copy of the Notice of Determination or Notice of Exemption filed with the County Clerk(s) and the Governor's Office of Planning and Research
- ✓ CWSRF Evaluation Form for Environmental Review and Federal Coordination with supporting documents

We've got the **green**...
to keep California's **water clean**.
CLEAN WATER STATE REVOLVING FUND

Contact Information: For more information related to the CWSRF Program environmental review process and requirements, please contact your State Water Board Project Manager or Mr. Ahmad Kashkoli at 916-341-5855 or Ahmad.Kashkoli@waterboards.ca.gov

CALIFORNIA Water Boards
STATE WATER RESOURCES CONTROL BOARD
REGIONAL WATER QUALITY CONTROL BOARDS
waterboards.ca.gov

REVISED: FEB. 2014

CLEAN WATER STATE REVOLVING FUND

Basic Criteria for Cultural Resources Report Preparation

State Water Resources Control Board
Division of Financial Assistance

For Section 106 Consultation with the State Historic Preservation Officer (SHPO) under the National Historic Preservation Act

CULTURAL RESOURCES REPORT

The Cultural Resources Report must be prepared by a qualified researcher that meets the Secretary of the Interior's Professional Qualifications Standards. Please see the Professional Qualifications Standards at the following website at: *http://www.cr.nps.gov/local-law/arch_stnds_9.htm*

The Cultural Resources Report should include one of the four "findings" listed in Section 106. These include:

"No historic properties affected"
(no properties are within the area of potential effect (APE; including below the ground).

"No effect to historic properties"
(properties may be near the APE, but the project will not have any adverse effects).

"No adverse effect to historic properties"
(the project may affect "historic properties", but the effects will not be adverse).

"Adverse effect to historic properties"

Note: Consultation with the SHPO will be required if a "no adverse effect to historic properties" or an "adverse effect to historic properties" determination is made, to develop and evaluate alternatives or modifications to the proposed project that could avoid, minimize or mitigate adverse effects on "historic properties."

RECORDS SEARCH

- A records search (less than one year old) extending to a half-mile beyond the project APE from a geographically appropriate Information Center is required. The records search should include maps that show all recorded sites and surveys in relation to the APE for the proposed project, and copies of the confidential site records included as an appendix to the Cultural Resources Report.
- The APE is three-dimensional (depth, length and width) and all areas (e.g., new construction, easements, staging areas, and access roads) directly affected by the proposed project.

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to keep California's **water clean**.
CLEAN WATER STATE REVOLVING FUND

OCTA

December 28, 2015

Ms. Daisy Covarrubias, Senior Staff Analyst
Orange County Sanitation District
10844 Ellis Ave
Fountain Valley, CA 92708-7018

Subject: Environmental Impact Report for Rehabilitation of Western Regional Sewers, Project No. 3-64

Dear Ms. Covarrubias:

The Orange County Transportation Authority (OCTA) has reviewed the above referenced document. The following are comments regarding the Environmental Impact Report for the Rehabilitation of Western Regional Sewers, Project No. 3-64.

On Page 8, Figure 2-1: Project Area Map, shows the project area map. Potential affected OCTA bus routes include the following: Route 46 (Bloomfield St), Route 50 (Katella), and Route 42 (Los Alamitos, Lincoln and Western), Route 26 (Orange Ave), and Route 38 (La Palma and Western). OCTA is particularly concerned of the project's construction potential disruption to bus service along some of the project area. OCTA recommends employing measures to reduce potential impacts to bus stops and disruptions to bus service. We thereby request the Orange County Sanitation District to notify OCTA as early as possible with any potential bus stop disruptions or street closures that may necessitate detours.

Additionally, OCTA recommends employing measures during construction to reduce potential disruptions to existing bicycle facilities which are:

- Class II (striped bike lanes) on portions of: Moody Street, Denni Street, Bloomfield Street, and Orange Avenue
- Class III (Signs) on portions of: Denni Street, Orange Avenue, and Western Avenue.

Thank you for providing OCTA with the opportunity to review this project. Throughout the development of the project, we encourage communication with OCTA on the matters discussed herein. If you have any questions or

comments, please contact me by phone at (714) 560-5907, or by email at dphu@octa.net.

Sincerely,

Dan Phu

Section Manager, Environmental Programs

Walsh, Jason

From: Covarrubias, Daisy <DCOVARRUBIAS@OCSD.COM>
Sent: Thursday, December 17, 2015 6:47 AM
To: Walsh, Jason
Cc: Khublall, Hardat
Subject: FW: OCSD - Western Regional Sewers Project

NOP comments from City of Seal Beach.

From: David Spitz [mailto:DSpitz@sealbeachca.gov]
Sent: Wednesday, December 16, 2015 4:53 PM
To: Covarrubias, Daisy <DCOVARRUBIAS@OCSD.COM>
Subject: RE: OCSD - Western Regional Sewers Project

Daisy,

Thank you very much for the comprehensive presentation today. Very clear, concise and detailed. Most of my comments were relayed today at the meeting, but here they are again for record keeping:

- The effects of construction noise must be studied if night work were to be allowed. The City has strict standards in our ordinance on noise levels after standard construction hours. Any permitting for night work would need to follow those guidelines.
- If pipe-bursting were to be used, the effects of liquefaction must be analyzed to see how it would affect the ground, pavement, adjacent utilities, etc.
- And lane closures will require a permit and a traffic control plan. If the lane closure is on Seal Beach Boulevard, the lane closure hours will be between 9am and 3pm.
- Discuss how you plan on keeping access open to fire services at all times, especially when working on North Gate Road in front of the Fire Station.
- Speaking of North Gate Road, the EIR must look into the effects of parking along that road and how it is to be affected with lane closures for construction coupled with required access for Fire Responders.

Two other small items to note, first is that Beverly Manor Drive is now called North Gate Road. Second item is that on page 5, it mentions that the Navy Weapons Station extends to the centerline of Seal Beach Boulevard and therefore the Seal Beach Interceptor is on Navy land. I do not know that specifically to be true. I would like to see the documents that support this assertion. As far as I know, the City's property extends to the back of right of way, where the Navy fence is located. I may be wrong, but I would still like to see the latest documents that show this.

Feel free to email me or call if you have any questions on my comments.

GABRIELENO BAND OF MISSION INDIANS - KIZH NATION
Historically known as The San Gabriel Band of Mission Indians
recognized by the State of California as the aboriginal tribe of the Los Angeles basin

AB52 Consultation Response

Dear Daisy Covarrubias , December 15, 2015

Your project for the Rehabilitation of the Western Regional Sewers, project NO. 3-64, lies in an area where the traditional territories of the Kizh (Kitc) Gabrieleño's villages adjoined and overlapped with each other, at least during the Late Prehistoric and Protohistoric Periods. The homeland of the Kizh Gabrieleño was probably the most influential Native American group in aboriginal southern California (Bean and Smith 1978a:538), was centered in the Los Angeles Basin, and reached as far east as the San Bernardino-Riverside area. The homeland of our neighbors the Serranos was primarily the San Bernardino Mountains, including the slopes and lowlands on the north and south flanks. Whatever the linguistic affiliation, Native Americans in and around the project area exhibited similar organization and resource procurement strategies. Villages were based on clan or lineage groups. Their home/ base sites are marked by midden deposits often with bedrock mortars. During their seasonal rounds to exploit plant resources, small groups would migrate within their traditional territory in search of specific plants and animals. Their gathering strategies of ten left behind signs of special use sites, usually grinding slicks on bedrock boulders, at the locations of the resources.

Due to the project location and the high sensitivity of the area location, we would like to request one of our certified Native American Monitor to be on site during any and all ground disturbances (including but not limited to pavement removal, post holing, auguring, boring, grading, excavation and trenching) to protect any cultural resources which may be effected during construction or development.

In all cases, when the Native American Heritage Commission states there are “no records of sacred sites in the project area” the NAHC will always refer lead agencies to the respective Native American Tribe because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & Tribal Historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. While the property may be located in an area that has been previously developed, numerous examples can be shared to show that there still is a possibility that unknown, yet significant, cultural resources will be encountered during ground disturbance activities. Please note, if they haven’t been listed with the NAHC, it doesn’t mean that they aren’t there. Not everyone reports what they know.

The recent implementation of AB52 dictates that lead agencies consult with Native American Tribes who can prove and document traditional and cultural affiliation with the area of said project in order to protect cultural resources. Our priorities are to avoid and protect without delay or conflicts – to consult with you to avoid unnecessary destruction of cultural and biological resources, but also to protect what resources still exist at the project site for the benefit and education of future generations.

With respect,

Andrew Salas, Chairman
cell (626)926-4131

PO Box 393 Covina, CA 91723 www.gabrielenoindians@yahoo.com gabrielenoindians@yahoo.com

South Coast
Air Quality Management District
21865 Copley Drive, Diamond Bar, CA 91765-4178
(909) 396-2000 • www.aqmd.gov

December 9, 2015

Daisy Covarrubias, Senior Staff Analyst
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708-7018

Notice of Preparation of a CEQA Document for the
Rehabilitation of Western Regional Sewers, Project No. 3-64

The South Coast Air Quality Management District (SCAQMD) staff appreciates the opportunity to comment on the above-mentioned document. The SCAQMD staff's comments are recommendations regarding the analysis of potential air quality impacts from the proposed project that should be included in the draft CEQA document. Please send the SCAQMD a copy of the CEQA document upon its completion. Note that copies of the Draft EIR that are submitted to the State Clearinghouse are not forwarded to the SCAQMD. Please forward a copy of the Draft EIR directly to SCAQMD at the address in our letterhead. **In addition, please send with the draft EIR all appendices or technical documents related to the air quality and greenhouse gas analyses and electronic versions of all air quality modeling and health risk assessment files. These include original emission calculation spreadsheets and modeling files (not Adobe PDF files). Without all files and supporting air quality documentation, the SCAQMD will be unable to complete its review of the air quality analysis in a timely manner. Any delays in providing all supporting air quality documentation will require additional time for review beyond the end of the comment period.**

Air Quality Analysis

The SCAQMD adopted its California Environmental Quality Act (CEQA) Air Quality Handbook in 1993 to assist other public agencies with the preparation of air quality analyses. The SCAQMD recommends that the Lead Agency use this Handbook as guidance when preparing its air quality analysis. Copies of the Handbook are available from the SCAQMD's Subscription Services Department by calling (909) 396-3720. More recent guidance developed since this Handbook was published is also available on SCAQMD's website here: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/ceqa-air-quality-handbook-(1993). SCAQMD staff also recommends that the lead agency use the CalEEMod land use emissions software. This software has recently been updated to incorporate up-to-date state and locally approved emission factors and methodologies for estimating pollutant emissions from typical land use development. CalEEMod is the only software model maintained by the California Air Pollution Control Officers Association (CAPCOA) and replaces the now outdated URBEMIS. This model is available free of charge at: www.caleemod.com.

The Lead Agency should identify any potential adverse air quality impacts that could occur from all phases of the project and all air pollutant sources related to the project. Air quality impacts from both construction (including demolition, if any) and operations should be calculated. Construction-related air quality impacts typically include, but are not limited to, emissions from the use of heavy-duty equipment from grading, earth-loading/unloading, paving, architectural coatings, off-road mobile sources (e.g., heavy-duty construction equipment) and on-road mobile sources (e.g., construction worker vehicle trips, material transport trips). Operation-related air quality impacts may include, but are not limited to, emissions from stationary sources (e.g., boilers), area sources (e.g., solvents and coatings), and vehicular trips (e.g., on- and off-road tailpipe emissions and entrained dust). Air quality impacts from indirect sources, that is, sources that generate or attract vehicular trips should be included in the analysis.

The SCAQMD has also developed both regional and localized significance thresholds. The SCAQMD staff requests that the lead agency quantify criteria pollutant emissions and compare the results to the recommended regional significance thresholds found here: http://www.aqmd.gov/docs/default-source/ceqa/handbook/scaqmd-air-quality-significance-thresholds.pdf?sfvrsn=2. In addition to analyzing regional air quality impacts, the SCAQMD staff recommends calculating localized air quality impacts and comparing the results to localized significance thresholds (LSTs). LSTs can be used in addition to the recommended regional significance thresholds as a second indication of air quality impacts when preparing a CEQA document. Therefore, when preparing the air quality analysis for the proposed project, it is recommended that the lead agency perform a localized analysis by either using the LSTs developed by the SCAQMD or

performing dispersion modeling as necessary. Guidance for performing a localized air quality analysis can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/localized-significance-thresholds.

In the event that the proposed project generates or attracts vehicular trips, especially heavy-duty diesel-fueled vehicles, it is recommended that the lead agency perform a mobile source health risk assessment. Guidance for performing a mobile source health risk assessment ("*Health Risk Assessment Guidance for Analyzing Cancer Risk from Mobile Source Diesel Idling Emissions for CEQA Air Quality Analysis*") can be found at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mobile-source-toxics-analysis. An analysis of all toxic air contaminant impacts due to the use of equipment potentially generating such air pollutants should also be included.

In addition, guidance on siting incompatible land uses (such as placing homes near freeways) can be found in the California Air Resources Board's *Air Quality and Land Use Handbook: A Community Perspective*, which can be found at the following internet address: http://www.arb.ca.gov/ch/handbook.pdf. CARB's Land Use Handbook is a general reference guide for evaluating and reducing air pollution impacts associated with new projects that go through the land use decision-making process.

Mitigation Measures

In the event that the project generates significant adverse air quality impacts, CEQA requires that all feasible mitigation measures that go beyond what is required by law be utilized during project construction and operation to minimize or eliminate these impacts. Pursuant to CEQA Guidelines §15126.4 (a)(1)(D), any impacts resulting from mitigation measures must also be discussed. Several resources are available to assist the Lead Agency with identifying possible mitigation measures for the project, including:

- Chapter 11 of the SCAQMD *CEQA Air Quality Handbook*
- SCAQMD's CEQA web pages at: http://www.aqmd.gov/home/regulations/ceqa/air-quality-analysis-handbook/mitigation-measures-and-control-efficiencies.
- CAPCOA's *Quantifying Greenhouse Gas Mitigation Measures* available here: http://www.capcoa.org/wp-content/uploads/2010/11/CAPCOA-Quantification-Report-9-14-Final.pdf.
- SCAQMD's Rule 403 – Fugitive Dust, and the Implementation Handbook for controlling construction-related emissions
- Other measures to reduce air quality impacts from land use projects can be found in the SCAQMD's Guidance Document for Addressing Air Quality Issues in General Plans and Local Planning. This document can be found at the following internet address: http://www.aqmd.gov/docs/default-source/planning/air-quality-guidance/complete-guidance-document.pdf?sfvrsn=4.

Data Sources

SCAQMD rules and relevant air quality reports and data are available by calling the SCAQMD's Public Information Center at (909) 396-2039. Much of the information available through the Public Information Center is also available via the SCAQMD's webpage (http://www.aqmd.gov).

The SCAQMD staff is available to work with the Lead Agency to ensure that project emissions are accurately evaluated and mitigated where feasible. If you have any questions regarding this letter, please contact me at Jwong1@aqmd.gov or call me at (909) 396-3176.

Sincerely,

Jillian Wong

Jillian Wong, Ph.D.
Program Supervisor
Planning, Rule Development & Area Sources

ORC151205-05
Control Number

Walsh, Jason

From: Doug Hawkins <dhawkins@ci.cypress.ca.us>
Sent: Tuesday, December 22, 2015 5:15 PM
To: CEQA
Cc: Kamran Dadbeh; Nick Mangkalakiri
Subject: FW: OCSD Western Regional Sewers - Comments

Dear Ms. Covarrubias.

The Orange County Sanitation District (OCSD) is proposing to rehabilitate and/or replace portions of the western regional sewer lines, a portion of which lies within the City of Cypress. The sewer lines run along Bloomfield Street, Denni Street, Moody Street, and Orange Avenue. These are heavily traveled arterial streets that are adjacent to schools, residential homes, and commercial properties. The City will require the submittal of a traffic control plan prepared by a licensed traffic engineer for approval. Close coordination will be required with businesses and schools to minimize all impacts and work hours will be set as to not impact peak hours of traffic. A Public Works Permit will be required, which will include special conditions and requirements for the work.

Should you have any questions, please contact Mr. Kamran Dadbeh at (714) 229-6740 or Mr. Nick Mangkalakiri at (714) 229-6729.

Thank you,

Douglas Hawkins
City Planner

(714) 229-6727
DHawkins@ci.cypress.ca.us

DRAFT

ENVIRONMENTAL IMPACT REPORT FOR

ORANGE COUNTY SANITATION DISTRICT

REHABILITATION OF WESTERN REGIONAL SEWERS

PROJECT NO. 3-64

APPENDIX B

AIR QUALITY ANALYSIS CONSTRUCTION DETAILS AND MODELING RESULTS

B-1: BUILD ALTERNATIVES 1 & 2CONSTRUCTION DETAILS

B-2: BUILD ALTERNATIVES 1 & 2 LOCAL SIGNIFICANCE THRESHOLD ANALYSIS

OCTOBER 2016

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APPENDIX B-1

BUILD ALTERNATIVES 1 & 2

CONSTRUCTION DETAILS

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Table B.1 Orange West Sub-Trunk Build Alternatives 1 & 2 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
CIPP Installation	Felt Truck	1	3	167	3
	Boiler Truck	1	5	167	3
	Diesel Generator	1	5	167	0
	1600 CFM Air compressor	1	8	167	0
	Contractor Support Trucks	2	8	167	2
	Employee Cars	4	2	167	6
	Contractor Pick-up Truck	2	6	167	2
	Bypass Pumps	4	10	167	0
Manhole Replacement/Rehabilitation	Excavator	1	8	100	2
	Front End Loader	1	8	100	2
	Crane	1	4	100	2
	Dump Truck	1	4	100	1
	Delivery Truck	1	4	100	1
	Contractor Pick-up Truck	2	6	100	1
	Concrete Truck	1	4	100	1
OCSD Oversight	Pick-up Trucks	2	6	167	4

Table B.2 Los Alamitos Sub-Trunk Build Alternative 1 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
Excavation	Front Loader	1	8	250	1
	Backhoe	1	8	250	1
	Dump Truck	4	8	250	1
	Pavement Saw	1	8	30	2
	Excavator	1	8	250	2
	Diesel Generator	1	8	250	0
	Air Compressor	1	6	250	0
	Contractor Pickup Truck	2	6	250	2
Installation	Crane	1	6	250	1
	Backhoe	1	6	250	1
	Delivery Truck	1	4	250	1
	Excavator	1	8	250	1
	Front-end Loader	1	8	250	1
	Contractor Pickup Truck	2	6	250	2
	Diesel Generator	1	8	250	0
	Compactor	1	4	250	1
	Concrete Truck	1	4	250	1
Paving	Asphalt Truck	1	5	100	1
	Backhoe	1	4	100	1
	Paving Machine	1	6	100	1
	Roller	1	4	100	1
	Contractor Pick-up Truck	2	6	100	2
CIPP Installation	Felt Truck	1	3	167	3
	Boiler Truck	1	5	167	3
	Diesel Generator	1	5	167	0

Table B.2 Los Alamitos Sub-Trunk Build Alternative 1 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
CIPP Installation	1600 CFM Air compressor	1	8	167	0
	Contractor Support Trucks	2	8	167	2
	Employee Cars	4	2	167	4
	Contractor Pick-up Truck	2	6	167	2
	Bypass Pumps	4	10	167	0
Manhole Replacement/Rehabilitation	Excavator	1	8	100	2
	Front End Loader	1	8	100	2
	Crane	1	4	100	2
	Dump Truck	1	4	100	1
	Delivery Truck	1	4	100	1
	Contractor Pick-up Truck	2	6	100	1
	Concrete Truck	1	4	100	1
OCSD Oversight	Pick-up Trucks	2	6	417	4

Table B.3 Los Alamitos Sub-Trunk Build Alternative 2 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
Excavation	Front Loader	1	8	557	1
	Backhoe	1	8	557	1
	Dump Truck	4	8	557	1
	Pavement Saw	1	8	30	2
	Excavator	1	8	557	2
	Diesel Generator	1	8	557	0
	Air Compressor	1	6	557	0
	Contractor Pickup Truck	2	6	557	2
Installation	Crane	1	6	557	1
	Backhoe	1	6	557	1
	Delivery Truck	1	4	557	1
	Excavator	1	8	557	1
	Front-end Loader	1	8	557	1
	Contractor Pickup Truck	2	6	557	2
	Diesel Generator	1	8	557	0
	Compactor	1	4	557	1
	Concrete Truck	1	4	557	1
Paving	Asphalt Truck	1	5	120	1
	Backhoe	1	4	120	1
	Paving Machine	1	6	120	1
	Roller	1	4	120	1
	Contractor Pick-up Truck	2	6	120	2
OCSD Oversight	Pick-up Trucks	2	6	557	4

Table B.4 Westside Relief Interceptor Alternative 1 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
Excavation	Front Loader	1	8	231	1
	Backhoe	1	8	231	1
	Dump Truck	4	8	231	1
	Pavement Saw	1	8	30	2
	Excavator	1	8	231	2
	Diesel Generator	1	8	231	0
	Air Compressor	1	6	231	2
	Contractor Pickup Truck	2	6	231	2
Installation	Crane	1	6	231	1
	Backhoe	1	6	231	1
	Delivery Truck	1	4	231	1
	Excavator	1	8	231	1
	Front-end Loader	1	8	231	1
	Contractor Pickup Truck	2	6	231	2
	Diesel Generator	1	8	231	0
	Compactor	1	4	231	1
	Concrete Truck	1	4	231	1
Paving	Asphalt Truck	1	5	90	1
	Backhoe	1	4	90	1
	Paving Machine	1	6	90	1
	Roller	1	4	90	1
	Contractor Pick-up Truck	2	6	90	2
CIPP Installation	Felt Truck	1	3	154	1
	Boiler Truck	1	5	154	1
	Diesel Generator	1	5	154	0

Table B.4 Westside Relief Interceptor Build Alternative 1 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
CIPP Installation	1600 CFM Air compressor	1	8	154	0
	Contractor Support Trucks	2	8	154	2
	Employee Cars	4	2	154	4
	Contractor Pick-up Truck	2	6	154	2
	Bypass Pumps	4	10	154	0
Manhole Replacement/Rehabilitation	Excavator	1	8	90	2
	Front End Loader	1	8	90	2
	Crane	1	4	90	2
	Dump Truck	1	4	90	1
	Delivery Truck	1	4	90	1
	Contractor Pick-up Truck	2	6	90	2
	Concrete Truck	1	4	90	1
OCSD Oversight	Pick-up Trucks	2	6	386	4

Table B.5 Westside Relief Interceptor Build Alternative 2 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
CIPP Installation	Felt Truck	1	3	321	1
	Boiler Truck	1	5	321	1
	Diesel Generator	1	5	321	0
	1600 CFM Air compressor	1	8	321	0
	Contractor Support Trucks	2	8	321	2
	Employee Cars	4	2	321	4
	Contractor Pick-up Truck	2	6	321	2
	Bypass Pumps	4	10	321	0
Manhole Replacement/Rehabilitation	Excavator	1	8	119	2
	Front End Loader	1	8	119	2
	Crane	1	4	119	2
	Dump Truck	1	4	119	1
	Delivery Truck	1	4	119	1
	Contractor Pick-up Truck	2	6	119	1
	Concrete Truck	1	4	119	1
OCSD Oversight	Pick-up Trucks	2	6	321	4

Table B.6 Westside Pump Station Build Alternatives 1 & 2 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
Wet Well/Force Main/ Air Scrubber/Air Jumper	Backhoe	1	6	20	1
	Excavator	2	6	25	1
	Dump Truck	1	6	30	1
	Small crane	1	6	4	1
	Delivery Truck	1	2	10	1
	Concrete Truck	1	4	15	1
	Contractor Support Trucks	2	8	180	8
	Air Compressor	1	6	90	0
	Diesel Generator	1	6	90	0
	Bypass Pumps	3	24	20	0
	Drill Rig	1	6	10	1
	Backhoe	1	6	20	1
OCSD Oversight	Pick-up Trucks	1	8	180	2

Table B.7 Seal Beach Interceptor Build Alternatives 1 & 2 Construction Details

Activity	Construction Equipment Type	Quantity of Equipment	Hours of Operation/Day	Number of Working Days	Workers
CIPP Installation	Felt Truck	1	3	74	1
	Boiler Truck	1	5	74	1
	Diesel Generator	1	5	74	0
	1600 CFM Air compressor	1	8	74	0
	Contractor Support Trucks	2	8	74	2
	Employee Cars	4	2	74	4
	Contractor Pick-up Truck	2	6	74	2
	Bypass Pumps	4	10	74	0
Manhole Replacement/Rehabilitation	Excavator	1	8	30	2
	Front End Loader	1	8	30	2
	Crane	1	4	30	2
	Dump Truck	1	4	30	1
	Delivery Truck	1	4	30	1
	Contractor Pick-up Truck	2	6	30	1
	Concrete Truck	1	4	30	1
OCSD Oversight	Pick-up Trucks	2	6	74	4

AIR MODELING RESULTS
BUILD ALTERNATIVE 1
DAILY EMISSIONS

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OCSD Westside Replacement Site Prep

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	231.00
tblGrading	MaterialExported	0.00	26,684.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5175	4.8768	3.6991	8.9900e-003	0.0958	0.2227	0.3185	0.0156	0.2099	0.2255	0.0000	792.2436	792.2436	0.2073	0.0000	796.5973
2020	0.0356	0.3234	0.2680	6.7000e-004	0.0652	0.0145	0.0797	7.4900e-003	0.0137	0.0211	0.0000	57.8533	57.8533	0.0153	0.0000	58.1754
Total	**0.5531**	**5.2002**	**3.9671**	**9.6600e-003**	**0.1610**	**0.2372**	**0.3982**	**0.0231**	**0.2236**	**0.2467**	**0.0000**	**850.0969**	**850.0969**	**0.2227**	**0.0000**	**854.7727**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5175	4.8768	3.6991	8.9900e-003	0.0958	0.2227	0.3185	0.0156	0.2099	0.2255	0.0000	792.2427	792.2427	0.2073	0.0000	796.5963
2020	0.0356	0.3234	0.2680	6.7000e-004	0.0652	0.0145	0.0797	7.4900e-003	0.0137	0.0211	0.0000	57.8532	57.8532	0.0153	0.0000	58.1754
Total	**0.5531**	**5.2002**	**3.9671**	**9.6600e-003**	**0.1610**	**0.2372**	**0.3982**	**0.0231**	**0.2236**	**0.2467**	**0.0000**	**850.0959**	**850.0959**	**0.2227**	**0.0000**	**854.7717**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	1/22/2020	5	231	

Acres of Grading (Site Preparation Phase): 115.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Off-Highway Trucks	4	8.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	11	28.00		3,336.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	6.8400e-003	0.0000	6.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6922	764.6922	0.2060	0.0000	769.0178
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0628**	**0.2225**	**0.2852**	**6.8400e-003**	**0.2097**	**0.2165**	**0.0000**	**764.6922**	**764.6922**	**0.2060**	**0.0000**	**769.0178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0133	0.1381	4.0000e-004	0.0330	2.6000e-004	0.0333	8.7700e-003	2.4000e-004	9.0100e-003	0.0000	27.5514	27.5514	1.3400e-003	0.0000	27.5794
Total	**8.9200e-003**	**0.0133**	**0.1381**	**4.0000e-004**	**0.0330**	**2.6000e-004**	**0.0333**	**8.7700e-003**	**2.4000e-004**	**9.0100e-003**	**0.0000**	**27.5514**	**27.5514**	**1.3400e-003**	**0.0000**	**27.5794**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	6.8400e-003	0.0000	6.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6913	764.6913	0.2060	0.0000	769.0169
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0628**	**0.2225**	**0.2852**	**6.8400e-003**	**0.2097**	**0.2165**	**0.0000**	**764.6913**	**764.6913**	**0.2060**	**0.0000**	**769.0169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0133	0.1381	4.0000e-004	0.0330	2.6000e-004	0.0333	8.7700e-003	2.4000e-004	9.0100e-003	0.0000	27.5514	27.5514	1.3400e-003	0.0000	27.5794
Total	**8.9200e-003**	**0.0133**	**0.1381**	**4.0000e-004**	**0.0330**	**2.6000e-004**	**0.0333**	**8.7700e-003**	**2.4000e-004**	**9.0100e-003**	**0.0000**	**27.5514**	**27.5514**	**1.3400e-003**	**0.0000**	**27.5794**

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	6.8400e-003	0.0000	6.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0350	0.3225	0.2584	6.4000e-004		0.0145	0.0145		0.0136	0.0136	0.0000	55.8863	55.8863	0.0153	0.0000	56.2064
Total	**0.0350**	**0.3225**	**0.2584**	**6.4000e-004**	**0.0628**	**0.0145**	**0.0772**	**6.8400e-003**	**0.0136**	**0.0205**	**0.0000**	**55.8863**	**55.8863**	**0.0153**	**0.0000**	**56.2064**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.2000e-004	9.5700e-003	3.0000e-005	2.4600e-003	2.0000e-005	2.4800e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	1.9671	1.9671	9.0000e-005	0.0000	1.9690
Total	**6.2000e-004**	**9.2000e-004**	**9.5700e-003**	**3.0000e-005**	**2.4600e-003**	**2.0000e-005**	**2.4800e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**1.9671**	**1.9671**	**9.0000e-005**	**0.0000**	**1.9690**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0628	0.0000	0.0628	6.8400e-003	0.0000	6.8400e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0350	0.3225	0.2584	6.4000e-004		0.0145	0.0145		0.0136	0.0136	0.0000	55.8862	55.8862	0.0153	0.0000	56.2064
Total	**0.0350**	**0.3225**	**0.2584**	**6.4000e-004**	**0.0628**	**0.0145**	**0.0772**	**6.8400e-003**	**0.0136**	**0.0205**	**0.0000**	**55.8862**	**55.8862**	**0.0153**	**0.0000**	**56.2064**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.2000e-004	9.2000e-004	9.5700e-003	3.0000e-005	2.4600e-003	2.0000e-005	2.4800e-003	6.5000e-004	2.0000e-005	6.7000e-004	0.0000	1.9671	1.9671	9.0000e-005	0.0000	1.9690
Total	**6.2000e-004**	**9.2000e-004**	**9.5700e-003**	**3.0000e-005**	**2.4600e-003**	**2.0000e-005**	**2.4800e-003**	**6.5000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**1.9671**	**1.9671**	**9.0000e-005**	**0.0000**	**1.9690**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Westside Replacement Grading and Paving

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include equipment and operations

Off-road Equipment - revised to include actual equipment and operations

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	231.00
tblConstructionPhase	NumDays	0.00	90.00
tblConstructionPhase	PhaseEndDate	5/27/2020	1/22/2020
tblConstructionPhase	PhaseStartDate	1/23/2020	9/19/2019

tblGrading	MaterialExported	0.00	26,684.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2407	2.3398	1.9904	4.0200e-003	0.1249	0.1175	0.2424	0.0577	0.1101	0.1678	0.0000	347.5979	347.5979	0.0861	0.0000	349.4059
2020	0.0208	0.1973	0.1831	3.9000e-004	0.0925	9.5300e-003	0.1020	0.0491	8.8900e-003	0.0580	0.0000	32.9114	32.9114	8.5200e-003	0.0000	33.0902
Total	**0.2615**	**2.5371**	**2.1735**	**4.4100e-003**	**0.2174**	**0.1270**	**0.3444**	**0.1068**	**0.1189**	**0.2257**	**0.0000**	**380.5092**	**380.5092**	**0.0946**	**0.0000**	**382.4961**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2407	2.3398	1.9904	4.0200e-003	0.1249	0.1175	0.2424	0.0577	0.1100	0.1678	0.0000	347.5975	347.5975	0.0861	0.0000	349.4055
2020	0.0208	0.1973	0.1831	3.9000e-004	0.0925	9.5300e-003	0.1020	0.0491	8.8900e-003	0.0580	0.0000	32.9113	32.9113	8.5200e-003	0.0000	33.0902
Total	**0.2615**	**2.5371**	**2.1735**	**4.4100e-003**	**0.2174**	**0.1270**	**0.3444**	**0.1068**	**0.1189**	**0.2257**	**0.0000**	**380.5088**	**380.5088**	**0.0946**	**0.0000**	**382.4957**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/6/2019	1/22/2020	5	231	
2	Paving	Paving	9/19/2019	1/22/2020	5	90	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Cranes	1	6.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	4.00	400	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Off-Highway Trucks	1	5.00	400	0.38
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	9	23.00		3,336.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix
Paving	9	23.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0480	0.0000	0.0480	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3598	270.3598	0.0698	0.0000	271.8258
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.0885**	**0.1025**	**0.1909**	**0.0480**	**0.0963**	**0.1443**	**0.0000**	**270.3598**	**270.3598**	**0.0698**	**0.0000**	**271.8258**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3300e-003	0.0109	0.1135	3.3000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003	0.0000	22.6315	22.6315	1.1000e-003	0.0000	22.6545
Total	**7.3300e-003**	**0.0109**	**0.1135**	**3.3000e-004**	**0.0271**	**2.1000e-004**	**0.0273**	**7.2000e-003**	**2.0000e-004**	**7.4000e-003**	**0.0000**	**22.6315**	**22.6315**	**1.1000e-003**	**0.0000**	**22.6545**

3.2 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0480	0.0000	0.0480	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3595	270.3595	0.0698	0.0000	271.8255
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.0885**	**0.1025**	**0.1909**	**0.0480**	**0.0963**	**0.1443**	**0.0000**	**270.3595**	**270.3595**	**0.0698**	**0.0000**	**271.8255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3300e-003	0.0109	0.1135	3.3000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003	0.0000	22.6315	22.6315	1.1000e-003	0.0000	22.6545
Total	**7.3300e-003**	**0.0109**	**0.1135**	**3.3000e-004**	**0.0271**	**2.1000e-004**	**0.0273**	**7.2000e-003**	**2.0000e-004**	**7.4000e-003**	**0.0000**	**22.6315**	**22.6315**	**1.1000e-003**	**0.0000**	**22.6545**

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0480	0.0000	0.0480	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0136	0.1349	0.1168	2.3000e-004		6.6500e-003	6.6500e-003		6.2500e-003	6.2500e-003	0.0000	19.7806	19.7806	5.1600e-003	0.0000	19.8890
Total	**0.0136**	**0.1349**	**0.1168**	**2.3000e-004**	**0.0885**	**6.6500e-003**	**0.0951**	**0.0480**	**6.2500e-003**	**0.0543**	**0.0000**	**19.7806**	**19.7806**	**5.1600e-003**	**0.0000**	**19.8890**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.8600e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6158	1.6158	8.0000e-005	0.0000	1.6174
Total	**5.1000e-004**	**7.5000e-004**	**7.8600e-003**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.6158**	**1.6158**	**8.0000e-005**	**0.0000**	**1.6174**

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0885	0.0000	0.0885	0.0480	0.0000	0.0480	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0136	0.1349	0.1168	2.3000e-004		6.6500e-003	6.6500e-003		6.2500e-003	6.2500e-003	0.0000	19.7806	19.7806	5.1600e-003	0.0000	19.8890
Total	**0.0136**	**0.1349**	**0.1168**	**2.3000e-004**	**0.0885**	**6.6500e-003**	**0.0951**	**0.0480**	**6.2500e-003**	**0.0543**	**0.0000**	**19.7806**	**19.7806**	**5.1600e-003**	**0.0000**	**19.8890**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.8600e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6158	1.6158	8.0000e-005	0.0000	1.6174
Total	**5.1000e-004**	**7.5000e-004**	**7.8600e-003**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.6158**	**1.6158**	**8.0000e-005**	**0.0000**	**1.6174**

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.3118	0.2388	5.2000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	46.8171	46.8171	0.0148	0.0000	47.1282
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0307**	**0.3118**	**0.2388**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0135**	**0.0135**	**0.0000**	**46.8171**	**46.8171**	**0.0148**	**0.0000**	**47.1282**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5200e-003	3.7600e-003	0.0391	1.1000e-004	9.3400e-003	7.0000e-005	9.4100e-003	2.4800e-003	7.0000e-005	2.5500e-003	0.0000	7.7894	7.7894	3.8000e-004	0.0000	7.7974
Total	**2.5200e-003**	**3.7600e-003**	**0.0391**	**1.1000e-004**	**9.3400e-003**	**7.0000e-005**	**9.4100e-003**	**2.4800e-003**	**7.0000e-005**	**2.5500e-003**	**0.0000**	**7.7894**	**7.7894**	**3.8000e-004**	**0.0000**	**7.7974**

3.3 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0307	0.3118	0.2388	5.2000e-004		0.0147	0.0147		0.0135	0.0135	0.0000	46.8171	46.8171	0.0148	0.0000	47.1281
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0307**	**0.3118**	**0.2388**	**5.2000e-004**		**0.0147**	**0.0147**		**0.0135**	**0.0135**	**0.0000**	**46.8171**	**46.8171**	**0.0148**	**0.0000**	**47.1281**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.5200e-003	3.7600e-003	0.0391	1.1000e-004	9.3400e-003	7.0000e-005	9.4100e-003	2.4800e-003	7.0000e-005	2.5500e-003	0.0000	7.7894	7.7894	3.8000e-004	0.0000	7.7974
Total	**2.5200e-003**	**3.7600e-003**	**0.0391**	**1.1000e-004**	**9.3400e-003**	**7.0000e-005**	**9.4100e-003**	**2.4800e-003**	**7.0000e-005**	**2.5500e-003**	**0.0000**	**7.7894**	**7.7894**	**3.8000e-004**	**0.0000**	**7.7974**

3.3 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2000e-003	0.0609	0.0506	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	9.8992	9.8992	3.2000e-003	0.0000	9.9664
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.2000e-003**	**0.0609**	**0.0506**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**9.8992**	**9.8992**	**3.2000e-003**	**0.0000**	**9.9664**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.8600e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6158	1.6158	8.0000e-005	0.0000	1.6174
Total	**5.1000e-004**	**7.5000e-004**	**7.8600e-003**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.6158**	**1.6158**	**8.0000e-005**	**0.0000**	**1.6174**

3.3 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	6.2000e-003	0.0609	0.0506	1.1000e-004		2.8400e-003	2.8400e-003		2.6100e-003	2.6100e-003	0.0000	9.8991	9.8991	3.2000e-003	0.0000	9.9664
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**6.2000e-003**	**0.0609**	**0.0506**	**1.1000e-004**		**2.8400e-003**	**2.8400e-003**		**2.6100e-003**	**2.6100e-003**	**0.0000**	**9.8991**	**9.8991**	**3.2000e-003**	**0.0000**	**9.9664**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.1000e-004	7.5000e-004	7.8600e-003	2.0000e-005	2.0200e-003	2.0000e-005	2.0300e-003	5.4000e-004	1.0000e-005	5.5000e-004	0.0000	1.6158	1.6158	8.0000e-005	0.0000	1.6174
Total	**5.1000e-004**	**7.5000e-004**	**7.8600e-003**	**2.0000e-005**	**2.0200e-003**	**2.0000e-005**	**2.0300e-003**	**5.4000e-004**	**1.0000e-005**	**5.5000e-004**	**0.0000**	**1.6158**	**1.6158**	**8.0000e-005**	**0.0000**	**1.6174**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Westside Manholes

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	90.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0623	0.6106	0.4994	1.1900e-003	0.0313	0.0267	0.0579	4.5400e-003	0.0245	0.0291	0.0000	102.2361	102.2361	0.0314	0.0000	102.8961
Total	**0.0623**	**0.6106**	**0.4994**	**1.1900e-003**	**0.0313**	**0.0267**	**0.0579**	**4.5400e-003**	**0.0245**	**0.0291**	**0.0000**	**102.2361**	**102.2361**	**0.0314**	**0.0000**	**102.8961**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0623	0.6106	0.4994	1.1900e-003	0.0313	0.0267	0.0579	4.5400e-003	0.0245	0.0291	0.0000	102.2359	102.2359	0.0314	0.0000	102.8960
Total	**0.0623**	**0.6106**	**0.4994**	**1.1900e-003**	**0.0313**	**0.0267**	**0.0579**	**4.5400e-003**	**0.0245**	**0.0291**	**0.0000**	**102.2359**	**102.2359**	**0.0314**	**0.0000**	**102.8960**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	4/21/2020	8/24/2020	5	90	

Acres of Grading (Site Preparation Phase): 45

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0604	0.6078	0.4705	1.1000e-003		0.0266	0.0266		0.0245	0.0245	0.0000	96.3086	96.3086	0.0312	0.0000	96.9627
Total	**0.0604**	**0.6078**	**0.4705**	**1.1000e-003**	**0.0239**	**0.0266**	**0.0505**	**2.5800e-003**	**0.0245**	**0.0270**	**0.0000**	**96.3086**	**96.3086**	**0.0312**	**0.0000**	**96.9627**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8700e-003	2.7700e-003	0.0288	9.0000e-005	7.4100e-003	6.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	5.9275	5.9275	2.8000e-004	0.0000	5.9334
Total	**1.8700e-003**	**2.7700e-003**	**0.0288**	**9.0000e-005**	**7.4100e-003**	**6.0000e-005**	**7.4600e-003**	**1.9700e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**5.9275**	**5.9275**	**2.8000e-004**	**0.0000**	**5.9334**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0239	0.0000	0.0239	2.5800e-003	0.0000	2.5800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0604	0.6078	0.4705	1.1000e-003		0.0266	0.0266		0.0245	0.0245	0.0000	96.3085	96.3085	0.0312	0.0000	96.9626
Total	**0.0604**	**0.6078**	**0.4705**	**1.1000e-003**	**0.0239**	**0.0266**	**0.0505**	**2.5800e-003**	**0.0245**	**0.0270**	**0.0000**	**96.3085**	**96.3085**	**0.0312**	**0.0000**	**96.9626**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8700e-003	2.7700e-003	0.0288	9.0000e-005	7.4100e-003	6.0000e-005	7.4600e-003	1.9700e-003	5.0000e-005	2.0200e-003	0.0000	5.9275	5.9275	2.8000e-004	0.0000	5.9334
Total	**1.8700e-003**	**2.7700e-003**	**0.0288**	**9.0000e-005**	**7.4100e-003**	**6.0000e-005**	**7.4600e-003**	**1.9700e-003**	**5.0000e-005**	**2.0200e-003**	**0.0000**	**5.9275**	**5.9275**	**2.8000e-004**	**0.0000**	**5.9334**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Westside CIPP

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	154.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.16	3.29
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	53.80	52.76
tblVehicleEF	HHD	528.22	527.95
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.93	3.62
tblVehicleEF	HHD	4.30	3.74
tblVehicleEF	HHD	3.53	3.46
tblVehicleEF	HHD	9.7330e-003	9.4770e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	8.9550e-003	8.7190e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.42	1.31
tblVehicleEF	HHD	5.5990e-003	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4410e-003	1.4160e-003
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.64	0.67
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.52	1.40
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.30	2.39
tblVehicleEF	HHD	1.70	1.71
tblVehicleEF	HHD	43.34	42.41
tblVehicleEF	HHD	559.60	559.32
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	4.06	3.74
tblVehicleEF	HHD	4.07	3.53
tblVehicleEF	HHD	3.38	3.32
tblVehicleEF	HHD	8.2050e-003	7.9890e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	7.5490e-003	7.3500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.53	0.55
tblVehicleEF	HHD	1.6920e-003	1.6360e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.24	1.14
tblVehicleEF	HHD	5.9320e-003	5.9290e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.2710e-003	1.2490e-003
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.60	0.63
tblVehicleEF	HHD	1.6920e-003	1.6360e-003

tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.32	1.22
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	4.35	4.54
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	54.58	53.53
tblVehicleEF	HHD	484.88	484.63
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.76	3.46
tblVehicleEF	HHD	4.23	3.68
tblVehicleEF	HHD	3.54	3.47
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.61	0.63

tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.44	1.33
tblVehicleEF	HHD	5.1400e-003	5.1370e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4540e-003	1.4290e-003
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.69	0.72
tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.54	1.42
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.77	0.74
tblVehicleEF	LDA	1.39	1.29
tblVehicleEF	LDA	248.70	244.10
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5970e-003	3.6040e-003
tblVehicleEF	LDA	7.6100e-004	7.6000e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.86	0.82
tblVehicleEF	LDA	1.09	1.01
tblVehicleEF	LDA	261.62	256.81
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	3.7860e-003	3.7940e-003
tblVehicleEF	LDA	7.5600e-004	7.5500e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.74	0.71
tblVehicleEF	LDA	1.44	1.34
tblVehicleEF	LDA	244.71	240.18
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5380e-003	3.5460e-003
tblVehicleEF	LDA	7.6200e-004	7.6100e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.04	1.90
tblVehicleEF	LDT1	3.76	3.46
tblVehicleEF	LDT1	303.54	299.16
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	4.1550e-003	4.1650e-003
tblVehicleEF	LDT1	9.1300e-004	9.0900e-004
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.24	2.09
tblVehicleEF	LDT1	2.96	2.73
tblVehicleEF	LDT1	318.77	314.25
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.87	0.83

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	4.3690e-003	4.3800e-003
tblVehicleEF	LDT1	8.9900e-004	8.9600e-004
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.87	0.83
tblVehicleEF	LDT1	0.25	0.23
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	1.98	1.84
tblVehicleEF	LDT1	3.88	3.57
tblVehicleEF	LDT1	299.01	294.68
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.28	0.26

tblVehicleEF	LDT1	4.0920e-003	4.1010e-003
tblVehicleEF	LDT1	9.1500e-004	9.1100e-004
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.07	1.01
tblVehicleEF	LDT2	2.03	1.86
tblVehicleEF	LDT2	369.06	364.55
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8850e-003	4.8940e-003

tblVehicleEF	LDT2	1.0390e-003	1.0370e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.19	1.12
tblVehicleEF	LDT2	1.59	1.46
tblVehicleEF	LDT2	387.88	383.18
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	5.1360e-003	5.1460e-003
tblVehicleEF	LDT2	1.0320e-003	1.0300e-003

tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.03	0.97
tblVehicleEF	LDT2	2.10	1.92
tblVehicleEF	LDT2	363.32	358.87
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8080e-003	4.8170e-003
tblVehicleEF	LDT2	1.0410e-003	1.0380e-003
tblVehicleEF	LDT2	0.06	0.06

tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.99	0.89
tblVehicleEF	LHD1	4.05	3.86
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.97	0.90
tblVehicleEF	LHD1	1.31	1.27
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.37	0.34
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3700e-004	5.3400e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	1.00	0.91
tblVehicleEF	LHD1	3.28	3.12
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.90	0.83
tblVehicleEF	LHD1	1.26	1.22
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004

tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.32	0.30
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.2400e-004	5.2100e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.35	0.32
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.98	0.89

tblVehicleEF	LHD1	4.09	3.89
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.95	0.88
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.37	0.35
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3800e-004	5.3500e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.35	2.23
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.53	1.41
tblVehicleEF	LHD2	0.86	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6000e-004	3.5800e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.66	0.60
tblVehicleEF	LHD2	1.91	1.81
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.44	1.33
tblVehicleEF	LHD2	0.83	0.80
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.5300e-004	3.5100e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.21	0.19
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15

tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.38	2.25
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.51	1.39
tblVehicleEF	LHD2	0.87	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6100e-004	3.5900e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.24	0.22
tblVehicleEF	MCY	20.47	20.19
tblVehicleEF	MCY	10.01	10.04
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.06	2.05
tblVehicleEF	MCY	1.9650e-003	1.9680e-003
tblVehicleEF	MCY	6.5000e-004	6.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55

tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.21	2.20
tblVehicleEF	MCY	19.82	19.56
tblVehicleEF	MCY	8.80	8.81
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.32	2.31
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.81	1.81
tblVehicleEF	MCY	1.9530e-003	1.9570e-003
tblVehicleEF	MCY	6.2300e-004	6.1900e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.55	2.55
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.95	1.94

tblVehicleEF	MCY	20.37	20.09
tblVehicleEF	MCY	10.06	10.09
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.13	1.12
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.08	2.07
tblVehicleEF	MCY	1.9640e-003	1.9670e-003
tblVehicleEF	MCY	6.5100e-004	6.4700e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.23	2.22
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.77	1.65

tblVehicleEF	MDV	3.76	3.50
tblVehicleEF	MDV	488.74	483.58
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.22	0.20
tblVehicleEF	MDV	0.35	0.32
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	6.2060e-003	6.2210e-003
tblVehicleEF	MDV	1.3410e-003	1.3380e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.96	1.82
tblVehicleEF	MDV	2.96	2.75

tblVehicleEF	MDV	514.22	508.88
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.19	0.18
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.27	0.25
tblVehicleEF	MDV	6.5340e-003	6.5510e-003
tblVehicleEF	MDV	1.3270e-003	1.3250e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.29	0.26
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.72	1.59
tblVehicleEF	MDV	3.88	3.61
tblVehicleEF	MDV	481.25	476.17

tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.35	0.33
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.32	0.30
tblVehicleEF	MDV	6.1100e-003	6.1250e-003
tblVehicleEF	MDV	1.3430e-003	1.3400e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.34	0.32
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.03	5.60
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.24	1.15

tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1500e-004	4.0600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MH	1.62	1.28
tblVehicleEF	MH	4.80	4.47
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.14	1.06
tblVehicleEF	MH	0.65	0.62

tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.29	0.27
tblVehicleEF	MH	6.6210e-003	6.6360e-003
tblVehicleEF	MH	3.9500e-004	3.8700e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.31	0.29
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.06	5.63
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.21	1.13
tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1600e-004	4.0700e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MHD	7.4570e-003	7.8620e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.89	1.99
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.46	13.47
tblVehicleEF	MHD	572.02	572.41
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	4.69	3.80
tblVehicleEF	MHD	1.64	1.20
tblVehicleEF	MHD	1.63	1.53
tblVehicleEF	MHD	0.01	8.1320e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	7.4820e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.16	0.17
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.86	0.79
tblVehicleEF	MHD	6.0640e-003	6.0680e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.0400e-004	7.8400e-004
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.18	0.19
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.11	0.10

tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.92	0.85
tblVehicleEF	MHD	7.0270e-003	7.4100e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.37	1.45
tblVehicleEF	MHD	0.69	0.61
tblVehicleEF	MHD	11.66	10.85
tblVehicleEF	MHD	606.00	606.42
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.84	3.92
tblVehicleEF	MHD	1.54	1.12
tblVehicleEF	MHD	1.56	1.47
tblVehicleEF	MHD	9.3480e-003	6.8560e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	8.6000e-003	6.3070e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	2.2930e-003	2.1990e-003

tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.76	0.70
tblVehicleEF	MHD	6.4240e-003	6.4280e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	7.5700e-004	7.3900e-004
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	2.2930e-003	2.1990e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.81	0.75
tblVehicleEF	MHD	8.0500e-003	8.4880e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	2.60	2.75
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.80	13.79
tblVehicleEF	MHD	525.09	525.45
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.48	3.63
tblVehicleEF	MHD	1.61	1.17
tblVehicleEF	MHD	1.64	1.54
tblVehicleEF	MHD	0.01	9.8950e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	9.1040e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.88	0.81
tblVehicleEF	MHD	5.5660e-003	5.5700e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.1000e-004	7.8900e-004
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.20	0.21
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.94	0.86
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	2.74	3.04
tblVehicleEF	OBUS	0.97	0.91

tblVehicleEF	OBUS	8.82	8.39
tblVehicleEF	OBUS	534.88	534.43
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.65	3.88
tblVehicleEF	OBUS	2.29	1.64
tblVehicleEF	OBUS	1.25	1.19
tblVehicleEF	OBUS	9.5470e-003	9.0830e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	8.7830e-003	8.3560e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.47	0.52
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.54	0.51
tblVehicleEF	OBUS	5.6700e-003	5.6650e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.1900e-004	5.1100e-004

tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.59
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.58	0.54
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	1.99	2.21
tblVehicleEF	OBUS	0.98	0.92
tblVehicleEF	OBUS	7.13	6.78
tblVehicleEF	OBUS	566.66	566.19
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.79	4.00
tblVehicleEF	OBUS	2.15	1.54
tblVehicleEF	OBUS	1.20	1.14
tblVehicleEF	OBUS	8.0480e-003	7.6570e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	7.4040e-003	7.0440e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.44	0.49
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.48	0.45
tblVehicleEF	OBUS	6.0070e-003	6.0020e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	4.9100e-004	4.8400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.55
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.51	0.48
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	3.78	4.19
tblVehicleEF	OBUS	0.97	0.91
tblVehicleEF	OBUS	9.01	8.57
tblVehicleEF	OBUS	491.00	490.59
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.44	3.71

tblVehicleEF	OBUS	2.24	1.61
tblVehicleEF	OBUS	1.25	1.20
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.56
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.35	0.35
tblVehicleEF	OBUS	0.55	0.52
tblVehicleEF	OBUS	5.2050e-003	5.2000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.2200e-004	5.1400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.57	0.63
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.35	0.35

tblVehicleEF	OBUS	0.59	0.55
tblVehicleEF	SBUS	4.4530e-003	4.5470e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.05	1.09
tblVehicleEF	SBUS	2.96	2.81
tblVehicleEF	SBUS	27.16	26.08
tblVehicleEF	SBUS	547.00	550.57
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.58	7.45
tblVehicleEF	SBUS	7.03	6.81
tblVehicleEF	SBUS	2.02	1.96
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.10	0.10
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.30	0.29

tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.66	1.58
tblVehicleEF	SBUS	5.7980e-003	5.8360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7600e-003	1.7380e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.77	1.68
tblVehicleEF	SBUS	4.1970e-003	4.2850e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	0.76	0.79
tblVehicleEF	SBUS	3.03	2.88
tblVehicleEF	SBUS	23.01	22.08
tblVehicleEF	SBUS	579.49	583.28
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.82	7.69
tblVehicleEF	SBUS	6.62	6.40
tblVehicleEF	SBUS	1.91	1.85
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04

tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	9.7360e-003
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.30	0.29
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.49	1.41
tblVehicleEF	SBUS	6.1430e-003	6.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.6900e-003	1.6700e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.34	0.33
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.59	1.51
tblVehicleEF	SBUS	4.8080e-003	4.9080e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.45	1.50
tblVehicleEF	SBUS	2.94	2.79
tblVehicleEF	SBUS	27.94	26.83

tblVehicleEF	SBUS	502.12	505.40
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.24	7.12
tblVehicleEF	SBUS	6.92	6.69
tblVehicleEF	SBUS	2.04	1.98
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.29	0.29
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.69	1.61
tblVehicleEF	SBUS	5.3230e-003	5.3580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7730e-003	1.7510e-003
tblVehicleEF	SBUS	0.04	0.04

tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.81	1.72
tblVehicleEF	UBUS	4.38	4.28
tblVehicleEF	UBUS	9.86	9.69
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.91	10.64
tblVehicleEF	UBUS	1.17	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.72	0.71
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8100e-004	4.7800e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003

tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.78	0.77
tblVehicleEF	UBUS	4.44	4.34
tblVehicleEF	UBUS	8.28	8.13
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.28	10.02
tblVehicleEF	UBUS	1.12	1.11
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10
tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.65	0.64
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.5400e-004	4.5100e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10

tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.81	0.80
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.70	0.69
tblVehicleEF	UBUS	4.37	4.27
tblVehicleEF	UBUS	9.99	9.82
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.70	10.43
tblVehicleEF	UBUS	1.18	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003
tblVehicleEF	UBUS	0.72	0.70
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8300e-004	4.8000e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003

tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.78	0.77

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2631	2.1913	2.1891	4.4200e-003	0.0620	0.1184	0.1804	0.0100	0.1170	0.1270	0.0000	376.7947	376.7947	0.0461	0.0000	377.7635
Total	**0.2631**	**2.1913**	**2.1891**	**4.4200e-003**	**0.0620**	**0.1184**	**0.1804**	**0.0100**	**0.1170**	**0.1270**	**0.0000**	**376.7947**	**376.7947**	**0.0461**	**0.0000**	**377.7635**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2631	2.1913	2.1891	4.4200e-003	0.0620	0.1184	0.1804	0.0100	0.1170	0.1270	0.0000	376.7943	376.7943	0.0461	0.0000	377.7631
Total	**0.2631**	**2.1913**	**2.1891**	**4.4200e-003**	**0.0620**	**0.1184**	**0.1804**	**0.0100**	**0.1170**	**0.1270**	**0.0000**	**376.7943**	**376.7943**	**0.0461**	**0.0000**	**377.7631**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	1/22/2020	8/24/2020	5	154	

Acres of Grading (Site Preparation Phase): 77

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0408	0.0000	0.0408	4.4100e-003	0.0000	4.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2578	2.1834	2.1069	4.1700e-003		0.1183	0.1183		0.1168	0.1168	0.0000	359.8904	359.8904	0.0453	0.0000	360.8422
Total	**0.2578**	**2.1834**	**2.1069**	**4.1700e-003**	**0.0408**	**0.1183**	**0.1591**	**4.4100e-003**	**0.1168**	**0.1213**	**0.0000**	**359.8904**	**359.8904**	**0.0453**	**0.0000**	**360.8422**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3400e-003	7.8900e-003	0.0822	2.6000e-004	0.0211	1.6000e-004	0.0213	5.6100e-003	1.5000e-004	5.7600e-003	0.0000	16.9043	16.9043	8.1000e-004	0.0000	16.9213
Total	**5.3400e-003**	**7.8900e-003**	**0.0822**	**2.6000e-004**	**0.0211**	**1.6000e-004**	**0.0213**	**5.6100e-003**	**1.5000e-004**	**5.7600e-003**	**0.0000**	**16.9043**	**16.9043**	**8.1000e-004**	**0.0000**	**16.9213**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0408	0.0000	0.0408	4.4100e-003	0.0000	4.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2578	2.1834	2.1069	4.1700e-003		0.1183	0.1183		0.1168	0.1168	0.0000	359.8900	359.8900	0.0453	0.0000	360.8418
Total	**0.2578**	**2.1834**	**2.1069**	**4.1700e-003**	**0.0408**	**0.1183**	**0.1591**	**4.4100e-003**	**0.1168**	**0.1213**	**0.0000**	**359.8900**	**359.8900**	**0.0453**	**0.0000**	**360.8418**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.3400e-003	7.8900e-003	0.0822	2.6000e-004	0.0211	1.6000e-004	0.0213	5.6100e-003	1.5000e-004	5.7600e-003	0.0000	16.9043	16.9043	8.1000e-004	0.0000	16.9213
Total	**5.3400e-003**	**7.8900e-003**	**0.0822**	**2.6000e-004**	**0.0211**	**1.6000e-004**	**0.0213**	**5.6100e-003**	**1.5000e-004**	**5.7600e-003**	**0.0000**	**16.9043**	**16.9043**	**8.1000e-004**	**0.0000**	**16.9213**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Los Alamitos Replacement Site Prep

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	250.00
tblGrading	MaterialExported	0.00	25,900.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Concrete/Industrial Saws
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5175	4.8768	3.6991	8.9900e-003	0.1008	0.2227	0.3235	0.0162	0.2099	0.2261	0.0000	792.2436	792.2436	0.2073	0.0000	796.5973
2020	0.0778	0.7074	0.5862	1.4600e-003	0.0731	0.0317	0.1048	8.8100e-003	0.0299	0.0387	0.0000	126.5541	126.5541	0.0336	0.0000	127.2588
Total	**0.5953**	**5.5842**	**4.2853**	**0.0105**	**0.1739**	**0.2544**	**0.4283**	**0.0250**	**0.2398**	**0.2647**	**0.0000**	**918.7977**	**918.7977**	**0.2409**	**0.0000**	**923.8560**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.5175	4.8768	3.6991	8.9900e-003	0.1008	0.2227	0.3235	0.0162	0.2099	0.2261	0.0000	792.2427	792.2427	0.2073	0.0000	796.5963
2020	0.0778	0.7074	0.5861	1.4600e-003	0.0731	0.0317	0.1048	8.8100e-003	0.0299	0.0387	0.0000	126.5540	126.5540	0.0336	0.0000	127.2586
Total	**0.5953**	**5.5842**	**4.2853**	**0.0105**	**0.1739**	**0.2544**	**0.4283**	**0.0250**	**0.2398**	**0.2647**	**0.0000**	**918.7967**	**918.7967**	**0.2409**	**0.0000**	**923.8550**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	2/18/2020	5	250	

Acres of Grading (Site Preparation Phase): 125

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	4	8.00	400	0.38
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Air Compressors	1	6.00	78	0.48

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	11	28.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0678	0.0000	0.0678	7.3800e-003	0.0000	7.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6922	764.6922	0.2060	0.0000	769.0178
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0678**	**0.2225**	**0.2902**	**7.3800e-003**	**0.2097**	**0.2171**	**0.0000**	**764.6922**	**764.6922**	**0.2060**	**0.0000**	**769.0178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0133	0.1381	4.0000e-004	0.0330	2.6000e-004	0.0333	8.7700e-003	2.4000e-004	9.0100e-003	0.0000	27.5514	27.5514	1.3400e-003	0.0000	27.5794
Total	**8.9200e-003**	**0.0133**	**0.1381**	**4.0000e-004**	**0.0330**	**2.6000e-004**	**0.0333**	**8.7700e-003**	**2.4000e-004**	**9.0100e-003**	**0.0000**	**27.5514**	**27.5514**	**1.3400e-003**	**0.0000**	**27.5794**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0678	0.0000	0.0678	7.3800e-003	0.0000	7.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6913	764.6913	0.2060	0.0000	769.0169
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0678**	**0.2225**	**0.2902**	**7.3800e-003**	**0.2097**	**0.2171**	**0.0000**	**764.6913**	**764.6913**	**0.2060**	**0.0000**	**769.0169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0133	0.1381	4.0000e-004	0.0330	2.6000e-004	0.0333	8.7700e-003	2.4000e-004	9.0100e-003	0.0000	27.5514	27.5514	1.3400e-003	0.0000	27.5794
Total	**8.9200e-003**	**0.0133**	**0.1381**	**4.0000e-004**	**0.0330**	**2.6000e-004**	**0.0333**	**8.7700e-003**	**2.4000e-004**	**9.0100e-003**	**0.0000**	**27.5514**	**27.5514**	**1.3400e-003**	**0.0000**	**27.5794**

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0678	0.0000	0.0678	7.3800e-003	0.0000	7.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0765	0.7054	0.5652	1.4000e-003		0.0316	0.0316		0.0298	0.0298	0.0000	122.2512	122.2512	0.0334	0.0000	122.9515
Total	**0.0765**	**0.7054**	**0.5652**	**1.4000e-003**	**0.0678**	**0.0316**	**0.0994**	**7.3800e-003**	**0.0298**	**0.0372**	**0.0000**	**122.2512**	**122.2512**	**0.0334**	**0.0000**	**122.9515**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	2.0100e-003	0.0209	7.0000e-005	5.3800e-003	4.0000e-005	5.4200e-003	1.4300e-003	4.0000e-005	1.4700e-003	0.0000	4.3029	4.3029	2.1000e-004	0.0000	4.3072
Total	**1.3600e-003**	**2.0100e-003**	**0.0209**	**7.0000e-005**	**5.3800e-003**	**4.0000e-005**	**5.4200e-003**	**1.4300e-003**	**4.0000e-005**	**1.4700e-003**	**0.0000**	**4.3029**	**4.3029**	**2.1000e-004**	**0.0000**	**4.3072**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0678	0.0000	0.0678	7.3800e-003	0.0000	7.3800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0765	0.7054	0.5652	1.4000e-003		0.0316	0.0316		0.0298	0.0298	0.0000	122.2510	122.2510	0.0334	0.0000	122.9514
Total	**0.0765**	**0.7054**	**0.5652**	**1.4000e-003**	**0.0678**	**0.0316**	**0.0994**	**7.3800e-003**	**0.0298**	**0.0372**	**0.0000**	**122.2510**	**122.2510**	**0.0334**	**0.0000**	**122.9514**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.3600e-003	2.0100e-003	0.0209	7.0000e-005	5.3800e-003	4.0000e-005	5.4200e-003	1.4300e-003	4.0000e-005	1.4700e-003	0.0000	4.3029	4.3029	2.1000e-004	0.0000	4.3072
Total	**1.3600e-003**	**2.0100e-003**	**0.0209**	**7.0000e-005**	**5.3800e-003**	**4.0000e-005**	**5.4200e-003**	**1.4300e-003**	**4.0000e-005**	**1.4700e-003**	**0.0000**	**4.3029**	**4.3029**	**2.1000e-004**	**0.0000**	**4.3072**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Los Alamitos Replacement Grading and Paving

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include equipment and operations

Off-road Equipment - revised to include actual equipment and operations

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	250.00
tblConstructionPhase	NumDays	0.00	100.00
tblConstructionPhase	PhaseEndDate	7/7/2020	2/18/2020
tblConstructionPhase	PhaseStartDate	2/19/2020	10/2/2019

tblGrading	MaterialExported	0.00	25,900.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2366	2.3014	1.9566	3.9400e-003	0.1309	0.1157	0.2466	0.0613	0.1084	0.1697	0.0000	340.9566	340.9566	0.0843	0.0000	342.7257
2020	0.0455	0.4315	0.4006	8.5000e-004	0.1044	0.0208	0.1252	0.0543	0.0195	0.0737	0.0000	71.9936	71.9936	0.0186	0.0000	72.3849
Total	**0.2821**	**2.7330**	**2.3572**	**4.7900e-003**	**0.2353**	**0.1365**	**0.3718**	**0.1156**	**0.1278**	**0.2435**	**0.0000**	**412.9501**	**412.9501**	**0.1029**	**0.0000**	**415.1106**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.2366	2.3014	1.9566	3.9400e-003	0.1309	0.1157	0.2466	0.0613	0.1084	0.1697	0.0000	340.9562	340.9562	0.0843	0.0000	342.7254
2020	0.0455	0.4315	0.4006	8.5000e-004	0.1044	0.0208	0.1252	0.0543	0.0195	0.0737	0.0000	71.9935	71.9935	0.0186	0.0000	72.3848
Total	**0.2821**	**2.7330**	**2.3572**	**4.7900e-003**	**0.2353**	**0.1365**	**0.3718**	**0.1156**	**0.1278**	**0.2435**	**0.0000**	**412.9497**	**412.9497**	**0.1029**	**0.0000**	**415.1102**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/6/2019	2/18/2020	5	250	
2	Paving	Paving	10/2/2019	2/18/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Cranes	1	6.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	4.00	400	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Off-Highway Trucks	1	5.00	400	0.38
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	9	23.00		3,238.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix
Paving	9	23.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0956	0.0000	0.0956	0.0519	0.0000	0.0519	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3598	270.3598	0.0698	0.0000	271.8258
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.0956**	**0.1025**	**0.1980**	**0.0519**	**0.0963**	**0.1482**	**0.0000**	**270.3598**	**270.3598**	**0.0698**	**0.0000**	**271.8258**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3300e-003	0.0109	0.1135	3.3000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003	0.0000	22.6315	22.6315	1.1000e-003	0.0000	22.6545
Total	**7.3300e-003**	**0.0109**	**0.1135**	**3.3000e-004**	**0.0271**	**2.1000e-004**	**0.0273**	**7.2000e-003**	**2.0000e-004**	**7.4000e-003**	**0.0000**	**22.6315**	**22.6315**	**1.1000e-003**	**0.0000**	**22.6545**

3.2 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0956	0.0000	0.0956	0.0519	0.0000	0.0519	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3595	270.3595	0.0698	0.0000	271.8255
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.0956**	**0.1025**	**0.1980**	**0.0519**	**0.0963**	**0.1482**	**0.0000**	**270.3595**	**270.3595**	**0.0698**	**0.0000**	**271.8255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.3300e-003	0.0109	0.1135	3.3000e-004	0.0271	2.1000e-004	0.0273	7.2000e-003	2.0000e-004	7.4000e-003	0.0000	22.6315	22.6315	1.1000e-003	0.0000	22.6545
Total	**7.3300e-003**	**0.0109**	**0.1135**	**3.3000e-004**	**0.0271**	**2.1000e-004**	**0.0273**	**7.2000e-003**	**2.0000e-004**	**7.4000e-003**	**0.0000**	**22.6315**	**22.6315**	**1.1000e-003**	**0.0000**	**22.6545**

3.2 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0956	0.0000	0.0956	0.0519	0.0000	0.0519	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0297	0.2951	0.2555	5.0000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	43.2701	43.2701	0.0113	0.0000	43.5072
Total	**0.0297**	**0.2951**	**0.2555**	**5.0000e-004**	**0.0956**	**0.0146**	**0.1101**	**0.0519**	**0.0137**	**0.0656**	**0.0000**	**43.2701**	**43.2701**	**0.0113**	**0.0000**	**43.5072**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	1.6500e-003	0.0172	5.0000e-005	4.4200e-003	3.0000e-005	4.4500e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.5345	3.5345	1.7000e-004	0.0000	3.5381
Total	**1.1200e-003**	**1.6500e-003**	**0.0172**	**5.0000e-005**	**4.4200e-003**	**3.0000e-005**	**4.4500e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.5345**	**3.5345**	**1.7000e-004**	**0.0000**	**3.5381**

3.2 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0956	0.0000	0.0956	0.0519	0.0000	0.0519	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0297	0.2951	0.2555	5.0000e-004		0.0146	0.0146		0.0137	0.0137	0.0000	43.2701	43.2701	0.0113	0.0000	43.5072
Total	**0.0297**	**0.2951**	**0.2555**	**5.0000e-004**	**0.0956**	**0.0146**	**0.1101**	**0.0519**	**0.0137**	**0.0656**	**0.0000**	**43.2701**	**43.2701**	**0.0113**	**0.0000**	**43.5072**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	1.6500e-003	0.0172	5.0000e-005	4.4200e-003	3.0000e-005	4.4500e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.5345	3.5345	1.7000e-004	0.0000	3.5381
Total	**1.1200e-003**	**1.6500e-003**	**0.0172**	**5.0000e-005**	**4.4200e-003**	**3.0000e-005**	**4.4500e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.5345**	**3.5345**	**1.7000e-004**	**0.0000**	**3.5381**

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0269	0.2739	0.2098	4.6000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	41.1232	41.1232	0.0130	0.0000	41.3964
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0269**	**0.2739**	**0.2098**	**4.6000e-004**		**0.0129**	**0.0129**		**0.0119**	**0.0119**	**0.0000**	**41.1232**	**41.1232**	**0.0130**	**0.0000**	**41.3964**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e-003	3.3100e-003	0.0343	1.0000e-004	8.2000e-003	6.0000e-005	8.2700e-003	2.1800e-003	6.0000e-005	2.2400e-003	0.0000	6.8421	6.8421	3.3000e-004	0.0000	6.8490
Total	**2.2100e-003**	**3.3100e-003**	**0.0343**	**1.0000e-004**	**8.2000e-003**	**6.0000e-005**	**8.2700e-003**	**2.1800e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**6.8421**	**6.8421**	**3.3000e-004**	**0.0000**	**6.8490**

3.3 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0269	0.2739	0.2098	4.6000e-004		0.0129	0.0129		0.0119	0.0119	0.0000	41.1231	41.1231	0.0130	0.0000	41.3963
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0269**	**0.2739**	**0.2098**	**4.6000e-004**		**0.0129**	**0.0129**		**0.0119**	**0.0119**	**0.0000**	**41.1231**	**41.1231**	**0.0130**	**0.0000**	**41.3963**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2100e-003	3.3100e-003	0.0343	1.0000e-004	8.2000e-003	6.0000e-005	8.2700e-003	2.1800e-003	6.0000e-005	2.2400e-003	0.0000	6.8421	6.8421	3.3000e-004	0.0000	6.8490
Total	**2.2100e-003**	**3.3100e-003**	**0.0343**	**1.0000e-004**	**8.2000e-003**	**6.0000e-005**	**8.2700e-003**	**2.1800e-003**	**6.0000e-005**	**2.2400e-003**	**0.0000**	**6.8421**	**6.8421**	**3.3000e-004**	**0.0000**	**6.8490**

3.3 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1331	0.1107	2.5000e-004		6.2200e-003	6.2200e-003		5.7200e-003	5.7200e-003	0.0000	21.6544	21.6544	7.0000e-003	0.0000	21.8015
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0136**	**0.1331**	**0.1107**	**2.5000e-004**		**6.2200e-003**	**6.2200e-003**		**5.7200e-003**	**5.7200e-003**	**0.0000**	**21.6544**	**21.6544**	**7.0000e-003**	**0.0000**	**21.8015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	1.6500e-003	0.0172	5.0000e-005	4.4200e-003	3.0000e-005	4.4500e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.5345	3.5345	1.7000e-004	0.0000	3.5381
Total	**1.1200e-003**	**1.6500e-003**	**0.0172**	**5.0000e-005**	**4.4200e-003**	**3.0000e-005**	**4.4500e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.5345**	**3.5345**	**1.7000e-004**	**0.0000**	**3.5381**

3.3 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0136	0.1331	0.1107	2.5000e-004		6.2200e-003	6.2200e-003		5.7200e-003	5.7200e-003	0.0000	21.6544	21.6544	7.0000e-003	0.0000	21.8014
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0136**	**0.1331**	**0.1107**	**2.5000e-004**		**6.2200e-003**	**6.2200e-003**		**5.7200e-003**	**5.7200e-003**	**0.0000**	**21.6544**	**21.6544**	**7.0000e-003**	**0.0000**	**21.8014**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.1200e-003	1.6500e-003	0.0172	5.0000e-005	4.4200e-003	3.0000e-005	4.4500e-003	1.1700e-003	3.0000e-005	1.2000e-003	0.0000	3.5345	3.5345	1.7000e-004	0.0000	3.5381
Total	**1.1200e-003**	**1.6500e-003**	**0.0172**	**5.0000e-005**	**4.4200e-003**	**3.0000e-005**	**4.4500e-003**	**1.1700e-003**	**3.0000e-005**	**1.2000e-003**	**0.0000**	**3.5345**	**3.5345**	**1.7000e-004**	**0.0000**	**3.5381**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Los Alamitos Manholes

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	100.00
tblOffRoadEquipment	OffRoadEquipmentType		Excavators
tblOffRoadEquipment	OffRoadEquipmentType		Cranes
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	PhaseName		Site Preparation

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0689	0.6780	0.5506	1.3100e-003	7.1300e-003	0.0296	0.0367	1.8900e-003	0.0272	0.0291	0.0000	112.7175	112.7175	0.0349	0.0000	113.4500
Total	**0.0689**	**0.6780**	**0.5506**	**1.3100e-003**	**7.1300e-003**	**0.0296**	**0.0367**	**1.8900e-003**	**0.0272**	**0.0291**	**0.0000**	**112.7175**	**112.7175**	**0.0349**	**0.0000**	**113.4500**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.0689	0.6780	0.5506	1.3100e-003	7.1300e-003	0.0296	0.0367	1.8900e-003	0.0272	0.0291	0.0000	112.7174	112.7174	0.0349	0.0000	113.4499
Total	**0.0689**	**0.6780**	**0.5506**	**1.3100e-003**	**7.1300e-003**	**0.0296**	**0.0367**	**1.8900e-003**	**0.0272**	**0.0291**	**0.0000**	**112.7174**	**112.7174**	**0.0349**	**0.0000**	**113.4499**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/21/2020	10/7/2020	5	100	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	5	13.00			14.70	6.90	20.00	LD_Mix	HDT_Mix	HHDT

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0671	0.6754	0.5228	1.2200e-003		0.0295	0.0295		0.0272	0.0272	0.0000	107.0095	107.0095	0.0346	0.0000	107.7363
Total	**0.0671**	**0.6754**	**0.5228**	**1.2200e-003**		**0.0295**	**0.0295**		**0.0272**	**0.0272**	**0.0000**	**107.0095**	**107.0095**	**0.0346**	**0.0000**	**107.7363**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-003	2.6600e-003	0.0278	9.0000e-005	7.1300e-003	6.0000e-005	7.1900e-003	1.8900e-003	5.0000e-005	1.9500e-003	0.0000	5.7080	5.7080	2.7000e-004	0.0000	5.7137
Total	**1.8000e-003**	**2.6600e-003**	**0.0278**	**9.0000e-005**	**7.1300e-003**	**6.0000e-005**	**7.1900e-003**	**1.8900e-003**	**5.0000e-005**	**1.9500e-003**	**0.0000**	**5.7080**	**5.7080**	**2.7000e-004**	**0.0000**	**5.7137**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0671	0.6754	0.5228	1.2200e-003		0.0295	0.0295		0.0272	0.0272	0.0000	107.0094	107.0094	0.0346	0.0000	107.7362
Total	**0.0671**	**0.6754**	**0.5228**	**1.2200e-003**		**0.0295**	**0.0295**		**0.0272**	**0.0272**	**0.0000**	**107.0094**	**107.0094**	**0.0346**	**0.0000**	**107.7362**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	1.8000e-003	2.6600e-003	0.0278	9.0000e-005	7.1300e-003	6.0000e-005	7.1900e-003	1.8900e-003	5.0000e-005	1.9500e-003	0.0000	5.7080	5.7080	2.7000e-004	0.0000	5.7137
Total	**1.8000e-003**	**2.6600e-003**	**0.0278**	**9.0000e-005**	**7.1300e-003**	**6.0000e-005**	**7.1900e-003**	**1.8900e-003**	**5.0000e-005**	**1.9500e-003**	**0.0000**	**5.7080**	**5.7080**	**2.7000e-004**	**0.0000**	**5.7137**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Los Alamitos CIPP

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	167.00
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Off-Highway Trucks
tblOffRoadEquipment	OffRoadEquipmentType		Generator Sets
tblOffRoadEquipment	OffRoadEquipmentType		Air Compressors
tblOffRoadEquipment	OffRoadEquipmentType		Pumps
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2854	2.3763	2.3739	4.8000e-003	0.0672	0.1284	0.1956	0.0109	0.1269	0.1377	0.0000	408.6021	408.6021	0.0500	0.0000	409.6526
Total	**0.2854**	**2.3763**	**2.3739**	**4.8000e-003**	**0.0672**	**0.1284**	**0.1956**	**0.0109**	**0.1269**	**0.1377**	**0.0000**	**408.6021**	**408.6021**	**0.0500**	**0.0000**	**409.6526**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2020	0.2854	2.3763	2.3739	4.8000e-003	0.0672	0.1284	0.1956	0.0109	0.1269	0.1377	0.0000	408.6016	408.6016	0.0500	0.0000	409.6521
Total	**0.2854**	**2.3763**	**2.3739**	**4.8000e-003**	**0.0672**	**0.1284**	**0.1956**	**0.0109**	**0.1269**	**0.1377**	**0.0000**	**408.6016**	**408.6016**	**0.0500**	**0.0000**	**409.6521**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	2/18/2020	10/7/2020	5	167	

Acres of Grading (Site Preparation Phase): 83.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0443	0.0000	0.0443	4.7800e-003	0.0000	4.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2796	2.3677	2.2847	4.5200e-003		0.1282	0.1282		0.1267	0.1267	0.0000	390.2708	390.2708	0.0492	0.0000	391.3029
Total	**0.2796**	**2.3677**	**2.2847**	**4.5200e-003**	**0.0443**	**0.1282**	**0.1725**	**4.7800e-003**	**0.1267**	**0.1315**	**0.0000**	**390.2708**	**390.2708**	**0.0492**	**0.0000**	**391.3029**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	8.5600e-003	0.0892	2.8000e-004	0.0229	1.8000e-004	0.0231	6.0800e-003	1.7000e-004	6.2500e-003	0.0000	18.3313	18.3313	8.8000e-004	0.0000	18.3497
Total	**5.7900e-003**	**8.5600e-003**	**0.0892**	**2.8000e-004**	**0.0229**	**1.8000e-004**	**0.0231**	**6.0800e-003**	**1.7000e-004**	**6.2500e-003**	**0.0000**	**18.3313**	**18.3313**	**8.8000e-004**	**0.0000**	**18.3497**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0443	0.0000	0.0443	4.7800e-003	0.0000	4.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2796	2.3677	2.2847	4.5200e-003		0.1282	0.1282		0.1267	0.1267	0.0000	390.2703	390.2703	0.0492	0.0000	391.3024
Total	**0.2796**	**2.3677**	**2.2847**	**4.5200e-003**	**0.0443**	**0.1282**	**0.1725**	**4.7800e-003**	**0.1267**	**0.1315**	**0.0000**	**390.2703**	**390.2703**	**0.0492**	**0.0000**	**391.3024**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	8.5600e-003	0.0892	2.8000e-004	0.0229	1.8000e-004	0.0231	6.0800e-003	1.7000e-004	6.2500e-003	0.0000	18.3313	18.3313	8.8000e-004	0.0000	18.3497
Total	**5.7900e-003**	**8.5600e-003**	**0.0892**	**2.8000e-004**	**0.0229**	**1.8000e-004**	**0.0231**	**6.0800e-003**	**1.7000e-004**	**6.2500e-003**	**0.0000**	**18.3313**	**18.3313**	**8.8000e-004**	**0.0000**	**18.3497**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Orange Manholes

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	100.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0749	0.7623	0.5718	1.3200e-003	0.0347	0.0337	0.0685	5.0500e-003	0.0310	0.0361	0.0000	116.2831	116.2831	0.0350	0.0000	117.0170
Total	**0.0749**	**0.7623**	**0.5718**	**1.3200e-003**	**0.0347**	**0.0337**	**0.0685**	**5.0500e-003**	**0.0310**	**0.0361**	**0.0000**	**116.2831**	**116.2831**	**0.0350**	**0.0000**	**117.0170**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0749	0.7623	0.5718	1.3200e-003	0.0347	0.0337	0.0685	5.0500e-003	0.0310	0.0361	0.0000	116.2829	116.2829	0.0350	0.0000	117.0169
Total	**0.0749**	**0.7623**	**0.5718**	**1.3200e-003**	**0.0347**	**0.0337**	**0.0685**	**5.0500e-003**	**0.0310**	**0.0361**	**0.0000**	**116.2829**	**116.2829**	**0.0350**	**0.0000**	**117.0169**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	6/7/2019	10/24/2019	5	100	

Acres of Grading (Site Preparation Phase): 50

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7590	0.5374	1.2200e-003		0.0337	0.0337		0.0310	0.0310	0.0000	109.4181	109.4181	0.0346	0.0000	110.1451
Total	**0.0727**	**0.7590**	**0.5374**	**1.2200e-003**	**0.0265**	**0.0337**	**0.0602**	**2.8600e-003**	**0.0310**	**0.0338**	**0.0000**	**109.4181**	**109.4181**	**0.0346**	**0.0000**	**110.1451**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	3.3200e-003	0.0344	1.0000e-004	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2500e-003	0.0000	6.8650	6.8650	3.3000e-004	0.0000	6.8720
Total	**2.2200e-003**	**3.3200e-003**	**0.0344**	**1.0000e-004**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2500e-003**	**0.0000**	**6.8650**	**6.8650**	**3.3000e-004**	**0.0000**	**6.8720**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0265	0.0000	0.0265	2.8600e-003	0.0000	2.8600e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0727	0.7590	0.5374	1.2200e-003		0.0337	0.0337		0.0310	0.0310	0.0000	109.4180	109.4180	0.0346	0.0000	110.1450
Total	**0.0727**	**0.7590**	**0.5374**	**1.2200e-003**	**0.0265**	**0.0337**	**0.0602**	**2.8600e-003**	**0.0310**	**0.0338**	**0.0000**	**109.4180**	**109.4180**	**0.0346**	**0.0000**	**110.1450**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.2200e-003	3.3200e-003	0.0344	1.0000e-004	8.2300e-003	6.0000e-005	8.2900e-003	2.1900e-003	6.0000e-005	2.2500e-003	0.0000	6.8650	6.8650	3.3000e-004	0.0000	6.8720
Total	**2.2200e-003**	**3.3200e-003**	**0.0344**	**1.0000e-004**	**8.2300e-003**	**6.0000e-005**	**8.2900e-003**	**2.1900e-003**	**6.0000e-005**	**2.2500e-003**	**0.0000**	**6.8650**	**6.8650**	**3.3000e-004**	**0.0000**	**6.8720**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Orange CIPP

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	167.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.16	3.29
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	53.80	52.76
tblVehicleEF	HHD	528.22	527.95
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.93	3.62
tblVehicleEF	HHD	4.30	3.74
tblVehicleEF	HHD	3.53	3.46
tblVehicleEF	HHD	9.7330e-003	9.4770e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	8.9550e-003	8.7190e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.42	1.31
tblVehicleEF	HHD	5.5990e-003	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4410e-003	1.4160e-003
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.64	0.67
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.52	1.40
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.30	2.39
tblVehicleEF	HHD	1.70	1.71
tblVehicleEF	HHD	43.34	42.41
tblVehicleEF	HHD	559.60	559.32
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	4.06	3.74
tblVehicleEF	HHD	4.07	3.53
tblVehicleEF	HHD	3.38	3.32
tblVehicleEF	HHD	8.2050e-003	7.9890e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	7.5490e-003	7.3500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.53	0.55
tblVehicleEF	HHD	1.6920e-003	1.6360e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.24	1.14
tblVehicleEF	HHD	5.9320e-003	5.9290e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.2710e-003	1.2490e-003
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.60	0.63
tblVehicleEF	HHD	1.6920e-003	1.6360e-003

tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.32	1.22
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	4.35	4.54
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	54.58	53.53
tblVehicleEF	HHD	484.88	484.63
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.76	3.46
tblVehicleEF	HHD	4.23	3.68
tblVehicleEF	HHD	3.54	3.47
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.61	0.63

tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.44	1.33
tblVehicleEF	HHD	5.1400e-003	5.1370e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4540e-003	1.4290e-003
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.69	0.72
tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.54	1.42
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.77	0.74
tblVehicleEF	LDA	1.39	1.29
tblVehicleEF	LDA	248.70	244.10
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5970e-003	3.6040e-003
tblVehicleEF	LDA	7.6100e-004	7.6000e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.86	0.82
tblVehicleEF	LDA	1.09	1.01
tblVehicleEF	LDA	261.62	256.81
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	3.7860e-003	3.7940e-003
tblVehicleEF	LDA	7.5600e-004	7.5500e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.74	0.71
tblVehicleEF	LDA	1.44	1.34
tblVehicleEF	LDA	244.71	240.18
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5380e-003	3.5460e-003
tblVehicleEF	LDA	7.6200e-004	7.6100e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.04	1.90
tblVehicleEF	LDT1	3.76	3.46
tblVehicleEF	LDT1	303.54	299.16
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	4.1550e-003	4.1650e-003
tblVehicleEF	LDT1	9.1300e-004	9.0900e-004
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.24	2.09
tblVehicleEF	LDT1	2.96	2.73
tblVehicleEF	LDT1	318.77	314.25
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.87	0.83

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	4.3690e-003	4.3800e-003
tblVehicleEF	LDT1	8.9900e-004	8.9600e-004
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.87	0.83
tblVehicleEF	LDT1	0.25	0.23
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	1.98	1.84
tblVehicleEF	LDT1	3.88	3.57
tblVehicleEF	LDT1	299.01	294.68
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.28	0.26

tblVehicleEF	LDT1	4.0920e-003	4.1010e-003
tblVehicleEF	LDT1	9.1500e-004	9.1100e-004
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.07	1.01
tblVehicleEF	LDT2	2.03	1.86
tblVehicleEF	LDT2	369.06	364.55
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8850e-003	4.8940e-003

tblVehicleEF	LDT2	1.0390e-003	1.0370e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.19	1.12
tblVehicleEF	LDT2	1.59	1.46
tblVehicleEF	LDT2	387.88	383.18
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	5.1360e-003	5.1460e-003
tblVehicleEF	LDT2	1.0320e-003	1.0300e-003

tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.03	0.97
tblVehicleEF	LDT2	2.10	1.92
tblVehicleEF	LDT2	363.32	358.87
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8080e-003	4.8170e-003
tblVehicleEF	LDT2	1.0410e-003	1.0380e-003
tblVehicleEF	LDT2	0.06	0.06

tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.99	0.89
tblVehicleEF	LHD1	4.05	3.86
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.97	0.90
tblVehicleEF	LHD1	1.31	1.27
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.37	0.34
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3700e-004	5.3400e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	1.00	0.91
tblVehicleEF	LHD1	3.28	3.12
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.90	0.83
tblVehicleEF	LHD1	1.26	1.22
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004

tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.32	0.30
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.2400e-004	5.2100e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.35	0.32
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.98	0.89

tblVehicleEF	LHD1	4.09	3.89
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.95	0.88
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.37	0.35
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3800e-004	5.3500e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.35	2.23
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.53	1.41
tblVehicleEF	LHD2	0.86	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6000e-004	3.5800e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.66	0.60
tblVehicleEF	LHD2	1.91	1.81
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.44	1.33
tblVehicleEF	LHD2	0.83	0.80
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.5300e-004	3.5100e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.21	0.19
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15

tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.38	2.25
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.51	1.39
tblVehicleEF	LHD2	0.87	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6100e-004	3.5900e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.24	0.22
tblVehicleEF	MCY	20.47	20.19
tblVehicleEF	MCY	10.01	10.04
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.06	2.05
tblVehicleEF	MCY	1.9650e-003	1.9680e-003
tblVehicleEF	MCY	6.5000e-004	6.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55

tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.21	2.20
tblVehicleEF	MCY	19.82	19.56
tblVehicleEF	MCY	8.80	8.81
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.32	2.31
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.81	1.81
tblVehicleEF	MCY	1.9530e-003	1.9570e-003
tblVehicleEF	MCY	6.2300e-004	6.1900e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.55	2.55
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.95	1.94

tblVehicleEF	MCY	20.37	20.09
tblVehicleEF	MCY	10.06	10.09
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.13	1.12
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.08	2.07
tblVehicleEF	MCY	1.9640e-003	1.9670e-003
tblVehicleEF	MCY	6.5100e-004	6.4700e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.23	2.22
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.77	1.65

tblVehicleEF	MDV	3.76	3.50
tblVehicleEF	MDV	488.74	483.58
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.22	0.20
tblVehicleEF	MDV	0.35	0.32
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	6.2060e-003	6.2210e-003
tblVehicleEF	MDV	1.3410e-003	1.3380e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.96	1.82
tblVehicleEF	MDV	2.96	2.75

tblVehicleEF	MDV	514.22	508.88
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.19	0.18
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.27	0.25
tblVehicleEF	MDV	6.5340e-003	6.5510e-003
tblVehicleEF	MDV	1.3270e-003	1.3250e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.29	0.26
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.72	1.59
tblVehicleEF	MDV	3.88	3.61
tblVehicleEF	MDV	481.25	476.17

tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.35	0.33
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.32	0.30
tblVehicleEF	MDV	6.1100e-003	6.1250e-003
tblVehicleEF	MDV	1.3430e-003	1.3400e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.34	0.32
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.03	5.60
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.24	1.15

tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1500e-004	4.0600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MH	1.62	1.28
tblVehicleEF	MH	4.80	4.47
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
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tblVehicleEF	MH	0.65	0.62

tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.29	0.27
tblVehicleEF	MH	6.6210e-003	6.6360e-003
tblVehicleEF	MH	3.9500e-004	3.8700e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.31	0.29
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.06	5.63
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.21	1.13
tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1600e-004	4.0700e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MHD	7.4570e-003	7.8620e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.89	1.99
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.46	13.47
tblVehicleEF	MHD	572.02	572.41
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
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tblVehicleEF	MHD	4.69	3.80
tblVehicleEF	MHD	1.64	1.20
tblVehicleEF	MHD	1.63	1.53
tblVehicleEF	MHD	0.01	8.1320e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	7.4820e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.16	0.17
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.86	0.79
tblVehicleEF	MHD	6.0640e-003	6.0680e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.0400e-004	7.8400e-004
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.18	0.19
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.11	0.10

tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.92	0.85
tblVehicleEF	MHD	7.0270e-003	7.4100e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.37	1.45
tblVehicleEF	MHD	0.69	0.61
tblVehicleEF	MHD	11.66	10.85
tblVehicleEF	MHD	606.00	606.42
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.84	3.92
tblVehicleEF	MHD	1.54	1.12
tblVehicleEF	MHD	1.56	1.47
tblVehicleEF	MHD	9.3480e-003	6.8560e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	8.6000e-003	6.3070e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	2.2930e-003	2.1990e-003

tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.76	0.70
tblVehicleEF	MHD	6.4240e-003	6.4280e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	7.5700e-004	7.3900e-004
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	2.2930e-003	2.1990e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.81	0.75
tblVehicleEF	MHD	8.0500e-003	8.4880e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	2.60	2.75
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.80	13.79
tblVehicleEF	MHD	525.09	525.45
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.48	3.63
tblVehicleEF	MHD	1.61	1.17
tblVehicleEF	MHD	1.64	1.54
tblVehicleEF	MHD	0.01	9.8950e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	9.1040e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.88	0.81
tblVehicleEF	MHD	5.5660e-003	5.5700e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.1000e-004	7.8900e-004
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.20	0.21
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.94	0.86
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tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
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tblVehicleEF	OBUS	0.97	0.91

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tblVehicleEF	OBUS	534.88	534.43
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.65	3.88
tblVehicleEF	OBUS	2.29	1.64
tblVehicleEF	OBUS	1.25	1.19
tblVehicleEF	OBUS	9.5470e-003	9.0830e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	8.7830e-003	8.3560e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.47	0.52
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.54	0.51
tblVehicleEF	OBUS	5.6700e-003	5.6650e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.1900e-004	5.1100e-004

tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.59
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.58	0.54
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	1.99	2.21
tblVehicleEF	OBUS	0.98	0.92
tblVehicleEF	OBUS	7.13	6.78
tblVehicleEF	OBUS	566.66	566.19
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.79	4.00
tblVehicleEF	OBUS	2.15	1.54
tblVehicleEF	OBUS	1.20	1.14
tblVehicleEF	OBUS	8.0480e-003	7.6570e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	7.4040e-003	7.0440e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
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tblVehicleEF	OBUS	0.44	0.49
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.48	0.45
tblVehicleEF	OBUS	6.0070e-003	6.0020e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	4.9100e-004	4.8400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.55
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.51	0.48
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	3.78	4.19
tblVehicleEF	OBUS	0.97	0.91
tblVehicleEF	OBUS	9.01	8.57
tblVehicleEF	OBUS	491.00	490.59
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.44	3.71

tblVehicleEF	OBUS	2.24	1.61
tblVehicleEF	OBUS	1.25	1.20
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.56
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.35	0.35
tblVehicleEF	OBUS	0.55	0.52
tblVehicleEF	OBUS	5.2050e-003	5.2000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.2200e-004	5.1400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.57	0.63
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.35	0.35

tblVehicleEF	OBUS	0.59	0.55
tblVehicleEF	SBUS	4.4530e-003	4.5470e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.05	1.09
tblVehicleEF	SBUS	2.96	2.81
tblVehicleEF	SBUS	27.16	26.08
tblVehicleEF	SBUS	547.00	550.57
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.58	7.45
tblVehicleEF	SBUS	7.03	6.81
tblVehicleEF	SBUS	2.02	1.96
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.10	0.10
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.30	0.29

tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.66	1.58
tblVehicleEF	SBUS	5.7980e-003	5.8360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7600e-003	1.7380e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.77	1.68
tblVehicleEF	SBUS	4.1970e-003	4.2850e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	0.76	0.79
tblVehicleEF	SBUS	3.03	2.88
tblVehicleEF	SBUS	23.01	22.08
tblVehicleEF	SBUS	579.49	583.28
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.82	7.69
tblVehicleEF	SBUS	6.62	6.40
tblVehicleEF	SBUS	1.91	1.85
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04

tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	9.7360e-003
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.30	0.29
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.49	1.41
tblVehicleEF	SBUS	6.1430e-003	6.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.6900e-003	1.6700e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.34	0.33
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.59	1.51
tblVehicleEF	SBUS	4.8080e-003	4.9080e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.45	1.50
tblVehicleEF	SBUS	2.94	2.79
tblVehicleEF	SBUS	27.94	26.83

tblVehicleEF	SBUS	502.12	505.40
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.24	7.12
tblVehicleEF	SBUS	6.92	6.69
tblVehicleEF	SBUS	2.04	1.98
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.29	0.29
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.69	1.61
tblVehicleEF	SBUS	5.3230e-003	5.3580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7730e-003	1.7510e-003
tblVehicleEF	SBUS	0.04	0.04

tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.81	1.72
tblVehicleEF	UBUS	4.38	4.28
tblVehicleEF	UBUS	9.86	9.69
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.91	10.64
tblVehicleEF	UBUS	1.17	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.72	0.71
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8100e-004	4.7800e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003

tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.78	0.77
tblVehicleEF	UBUS	4.44	4.34
tblVehicleEF	UBUS	8.28	8.13
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.28	10.02
tblVehicleEF	UBUS	1.12	1.11
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10
tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.65	0.64
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.5400e-004	4.5100e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10

tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.81	0.80
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.70	0.69
tblVehicleEF	UBUS	4.37	4.27
tblVehicleEF	UBUS	9.99	9.82
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.70	10.43
tblVehicleEF	UBUS	1.18	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003
tblVehicleEF	UBUS	0.72	0.70
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8300e-004	4.8000e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003

tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.78	0.77

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3144	2.6087	2.4058	4.8000e-003	0.0672	0.1474	0.2145	0.0109	0.1456	0.1565	0.0000	411.5723	411.5723	0.0522	0.0000	412.6677
Total	**0.3144**	**2.6087**	**2.4058**	**4.8000e-003**	**0.0672**	**0.1474**	**0.2145**	**0.0109**	**0.1456**	**0.1565**	**0.0000**	**411.5723**	**411.5723**	**0.0522**	**0.0000**	**412.6677**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3144	2.6087	2.4058	4.8000e-003	0.0672	0.1474	0.2145	0.0109	0.1456	0.1565	0.0000	411.5718	411.5718	0.0522	0.0000	412.6672
Total	**0.3144**	**2.6087**	**2.4058**	**4.8000e-003**	**0.0672**	**0.1474**	**0.2145**	**0.0109**	**0.1456**	**0.1565**	**0.0000**	**411.5718**	**411.5718**	**0.0522**	**0.0000**	**412.6672**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	10/24/2019	5	167	

Acres of Grading (Site Preparation Phase): 83.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0443	0.0000	0.0443	4.7800e-003	0.0000	4.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3082	2.5995	2.3100	4.5200e-003		0.1472	0.1472		0.1454	0.1454	0.0000	392.4648	392.4648	0.0512	0.0000	393.5407
Total	**0.3082**	**2.5995**	**2.3100**	**4.5200e-003**	**0.0443**	**0.1472**	**0.1915**	**4.7800e-003**	**0.1454**	**0.1502**	**0.0000**	**392.4648**	**392.4648**	**0.0512**	**0.0000**	**393.5407**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1900e-003	9.2300e-003	0.0958	2.8000e-004	0.0229	1.8000e-004	0.0231	6.0800e-003	1.7000e-004	6.2500e-003	0.0000	19.1075	19.1075	9.3000e-004	0.0000	19.1269
Total	**6.1900e-003**	**9.2300e-003**	**0.0958**	**2.8000e-004**	**0.0229**	**1.8000e-004**	**0.0231**	**6.0800e-003**	**1.7000e-004**	**6.2500e-003**	**0.0000**	**19.1075**	**19.1075**	**9.3000e-004**	**0.0000**	**19.1269**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0443	0.0000	0.0443	4.7800e-003	0.0000	4.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3082	2.5995	2.3100	4.5200e-003		0.1472	0.1472		0.1454	0.1454	0.0000	392.4644	392.4644	0.0512	0.0000	393.5403
Total	**0.3082**	**2.5995**	**2.3100**	**4.5200e-003**	**0.0443**	**0.1472**	**0.1915**	**4.7800e-003**	**0.1454**	**0.1502**	**0.0000**	**392.4644**	**392.4644**	**0.0512**	**0.0000**	**393.5403**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.1900e-003	9.2300e-003	0.0958	2.8000e-004	0.0229	1.8000e-004	0.0231	6.0800e-003	1.7000e-004	6.2500e-003	0.0000	19.1075	19.1075	9.3000e-004	0.0000	19.1269
Total	**6.1900e-003**	**9.2300e-003**	**0.0958**	**2.8000e-004**	**0.0229**	**1.8000e-004**	**0.0231**	**6.0800e-003**	**1.7000e-004**	**6.2500e-003**	**0.0000**	**19.1075**	**19.1075**	**9.3000e-004**	**0.0000**	**19.1269**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Seal Beach Manholes

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	30.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0225	0.2287	0.1715	4.0000e-004	0.0104	0.0101	0.0205	1.5100e-003	9.3100e-003	0.0108	0.0000	34.8849	34.8849	0.0105	0.0000	35.1051
Total	**0.0225**	**0.2287**	**0.1715**	**4.0000e-004**	**0.0104**	**0.0101**	**0.0205**	**1.5100e-003**	**9.3100e-003**	**0.0108**	**0.0000**	**34.8849**	**34.8849**	**0.0105**	**0.0000**	**35.1051**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0225	0.2287	0.1715	4.0000e-004	0.0104	0.0101	0.0205	1.5100e-003	9.3100e-003	0.0108	0.0000	34.8849	34.8849	0.0105	0.0000	35.1051
Total	**0.0225**	**0.2287**	**0.1715**	**4.0000e-004**	**0.0104**	**0.0101**	**0.0205**	**1.5100e-003**	**9.3100e-003**	**0.0108**	**0.0000**	**34.8849**	**34.8849**	**0.0105**	**0.0000**	**35.1051**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	5/7/2019	6/17/2019	5	30	

Acres of Grading (Site Preparation Phase): 15

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.2277	0.1612	3.7000e-004		0.0101	0.0101		9.2900e-003	9.2900e-003	0.0000	32.8254	32.8254	0.0104	0.0000	33.0435
Total	**0.0218**	**0.2277**	**0.1612**	**3.7000e-004**	**7.9500e-003**	**0.0101**	**0.0181**	**8.6000e-004**	**9.2900e-003**	**0.0102**	**0.0000**	**32.8254**	**32.8254**	**0.0104**	**0.0000**	**33.0435**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	1.0000e-003	0.0103	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.0595	2.0595	1.0000e-004	0.0000	2.0616
Total	**6.7000e-004**	**1.0000e-003**	**0.0103**	**3.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.0595**	**2.0595**	**1.0000e-004**	**0.0000**	**2.0616**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					7.9500e-003	0.0000	7.9500e-003	8.6000e-004	0.0000	8.6000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0218	0.2277	0.1612	3.7000e-004		0.0101	0.0101		9.2900e-003	9.2900e-003	0.0000	32.8254	32.8254	0.0104	0.0000	33.0435
Total	**0.0218**	**0.2277**	**0.1612**	**3.7000e-004**	**7.9500e-003**	**0.0101**	**0.0181**	**8.6000e-004**	**9.2900e-003**	**0.0102**	**0.0000**	**32.8254**	**32.8254**	**0.0104**	**0.0000**	**33.0435**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.7000e-004	1.0000e-003	0.0103	3.0000e-005	2.4700e-003	2.0000e-005	2.4900e-003	6.6000e-004	2.0000e-005	6.7000e-004	0.0000	2.0595	2.0595	1.0000e-004	0.0000	2.0616
Total	**6.7000e-004**	**1.0000e-003**	**0.0103**	**3.0000e-005**	**2.4700e-003**	**2.0000e-005**	**2.4900e-003**	**6.6000e-004**	**2.0000e-005**	**6.7000e-004**	**0.0000**	**2.0595**	**2.0595**	**1.0000e-004**	**0.0000**	**2.0616**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Seal Beach CIPP

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	74.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.16	3.29
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	53.80	52.76
tblVehicleEF	HHD	528.22	527.95
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.93	3.62
tblVehicleEF	HHD	4.30	3.74
tblVehicleEF	HHD	3.53	3.46
tblVehicleEF	HHD	9.7330e-003	9.4770e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	8.9550e-003	8.7190e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.42	1.31
tblVehicleEF	HHD	5.5990e-003	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4410e-003	1.4160e-003
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.64	0.67
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.52	1.40
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.30	2.39
tblVehicleEF	HHD	1.70	1.71
tblVehicleEF	HHD	43.34	42.41
tblVehicleEF	HHD	559.60	559.32
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	4.06	3.74
tblVehicleEF	HHD	4.07	3.53
tblVehicleEF	HHD	3.38	3.32
tblVehicleEF	HHD	8.2050e-003	7.9890e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	7.5490e-003	7.3500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.53	0.55
tblVehicleEF	HHD	1.6920e-003	1.6360e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.24	1.14
tblVehicleEF	HHD	5.9320e-003	5.9290e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.2710e-003	1.2490e-003
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.60	0.63
tblVehicleEF	HHD	1.6920e-003	1.6360e-003

tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.32	1.22
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	4.35	4.54
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	54.58	53.53
tblVehicleEF	HHD	484.88	484.63
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.76	3.46
tblVehicleEF	HHD	4.23	3.68
tblVehicleEF	HHD	3.54	3.47
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.61	0.63

tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.44	1.33
tblVehicleEF	HHD	5.1400e-003	5.1370e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4540e-003	1.4290e-003
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.69	0.72
tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.54	1.42
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.77	0.74
tblVehicleEF	LDA	1.39	1.29
tblVehicleEF	LDA	248.70	244.10
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5970e-003	3.6040e-003
tblVehicleEF	LDA	7.6100e-004	7.6000e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.86	0.82
tblVehicleEF	LDA	1.09	1.01
tblVehicleEF	LDA	261.62	256.81
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	3.7860e-003	3.7940e-003
tblVehicleEF	LDA	7.5600e-004	7.5500e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.74	0.71
tblVehicleEF	LDA	1.44	1.34
tblVehicleEF	LDA	244.71	240.18
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5380e-003	3.5460e-003
tblVehicleEF	LDA	7.6200e-004	7.6100e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.04	1.90
tblVehicleEF	LDT1	3.76	3.46
tblVehicleEF	LDT1	303.54	299.16
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	4.1550e-003	4.1650e-003
tblVehicleEF	LDT1	9.1300e-004	9.0900e-004
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.24	2.09
tblVehicleEF	LDT1	2.96	2.73
tblVehicleEF	LDT1	318.77	314.25
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.87	0.83

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	4.3690e-003	4.3800e-003
tblVehicleEF	LDT1	8.9900e-004	8.9600e-004
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.87	0.83
tblVehicleEF	LDT1	0.25	0.23
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	1.98	1.84
tblVehicleEF	LDT1	3.88	3.57
tblVehicleEF	LDT1	299.01	294.68
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.28	0.26

tblVehicleEF	LDT1	4.0920e-003	4.1010e-003
tblVehicleEF	LDT1	9.1500e-004	9.1100e-004
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.07	1.01
tblVehicleEF	LDT2	2.03	1.86
tblVehicleEF	LDT2	369.06	364.55
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8850e-003	4.8940e-003

tblVehicleEF	LDT2	1.0390e-003	1.0370e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.19	1.12
tblVehicleEF	LDT2	1.59	1.46
tblVehicleEF	LDT2	387.88	383.18
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	5.1360e-003	5.1460e-003
tblVehicleEF	LDT2	1.0320e-003	1.0300e-003

tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.03	0.97
tblVehicleEF	LDT2	2.10	1.92
tblVehicleEF	LDT2	363.32	358.87
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8080e-003	4.8170e-003
tblVehicleEF	LDT2	1.0410e-003	1.0380e-003
tblVehicleEF	LDT2	0.06	0.06

tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.99	0.89
tblVehicleEF	LHD1	4.05	3.86
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.97	0.90
tblVehicleEF	LHD1	1.31	1.27
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.37	0.34
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3700e-004	5.3400e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	1.00	0.91
tblVehicleEF	LHD1	3.28	3.12
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.90	0.83
tblVehicleEF	LHD1	1.26	1.22
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004

tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.32	0.30
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.2400e-004	5.2100e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.35	0.32
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.98	0.89

tblVehicleEF	LHD1	4.09	3.89
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.95	0.88
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.37	0.35
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3800e-004	5.3500e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.35	2.23
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.53	1.41
tblVehicleEF	LHD2	0.86	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6000e-004	3.5800e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.66	0.60
tblVehicleEF	LHD2	1.91	1.81
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.44	1.33
tblVehicleEF	LHD2	0.83	0.80
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.5300e-004	3.5100e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.21	0.19
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15

tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.38	2.25
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.51	1.39
tblVehicleEF	LHD2	0.87	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6100e-004	3.5900e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.24	0.22
tblVehicleEF	MCY	20.47	20.19
tblVehicleEF	MCY	10.01	10.04
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.06	2.05
tblVehicleEF	MCY	1.9650e-003	1.9680e-003
tblVehicleEF	MCY	6.5000e-004	6.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55

tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.21	2.20
tblVehicleEF	MCY	19.82	19.56
tblVehicleEF	MCY	8.80	8.81
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.32	2.31
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.81	1.81
tblVehicleEF	MCY	1.9530e-003	1.9570e-003
tblVehicleEF	MCY	6.2300e-004	6.1900e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.55	2.55
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.95	1.94

tblVehicleEF	MCY	20.37	20.09
tblVehicleEF	MCY	10.06	10.09
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.13	1.12
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.08	2.07
tblVehicleEF	MCY	1.9640e-003	1.9670e-003
tblVehicleEF	MCY	6.5100e-004	6.4700e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.23	2.22
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.77	1.65

tblVehicleEF	MDV	3.76	3.50
tblVehicleEF	MDV	488.74	483.58
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.22	0.20
tblVehicleEF	MDV	0.35	0.32
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	6.2060e-003	6.2210e-003
tblVehicleEF	MDV	1.3410e-003	1.3380e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.96	1.82
tblVehicleEF	MDV	2.96	2.75

tblVehicleEF	MDV	514.22	508.88
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.19	0.18
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.27	0.25
tblVehicleEF	MDV	6.5340e-003	6.5510e-003
tblVehicleEF	MDV	1.3270e-003	1.3250e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.29	0.26
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.72	1.59
tblVehicleEF	MDV	3.88	3.61
tblVehicleEF	MDV	481.25	476.17

tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.35	0.33
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.32	0.30
tblVehicleEF	MDV	6.1100e-003	6.1250e-003
tblVehicleEF	MDV	1.3430e-003	1.3400e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.34	0.32
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.03	5.60
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.24	1.15

tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1500e-004	4.0600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MH	1.62	1.28
tblVehicleEF	MH	4.80	4.47
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.14	1.06
tblVehicleEF	MH	0.65	0.62

tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.29	0.27
tblVehicleEF	MH	6.6210e-003	6.6360e-003
tblVehicleEF	MH	3.9500e-004	3.8700e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.31	0.29
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.06	5.63
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.21	1.13
tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1600e-004	4.0700e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MHD	7.4570e-003	7.8620e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.89	1.99
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.46	13.47
tblVehicleEF	MHD	572.02	572.41
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	4.69	3.80
tblVehicleEF	MHD	1.64	1.20
tblVehicleEF	MHD	1.63	1.53
tblVehicleEF	MHD	0.01	8.1320e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	7.4820e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.16	0.17
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.86	0.79
tblVehicleEF	MHD	6.0640e-003	6.0680e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.0400e-004	7.8400e-004
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.18	0.19
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.11	0.10

tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.92	0.85
tblVehicleEF	MHD	7.0270e-003	7.4100e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.37	1.45
tblVehicleEF	MHD	0.69	0.61
tblVehicleEF	MHD	11.66	10.85
tblVehicleEF	MHD	606.00	606.42
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.84	3.92
tblVehicleEF	MHD	1.54	1.12
tblVehicleEF	MHD	1.56	1.47
tblVehicleEF	MHD	9.3480e-003	6.8560e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	8.6000e-003	6.3070e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	2.2930e-003	2.1990e-003

tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.76	0.70
tblVehicleEF	MHD	6.4240e-003	6.4280e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	7.5700e-004	7.3900e-004
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	2.2930e-003	2.1990e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.81	0.75
tblVehicleEF	MHD	8.0500e-003	8.4880e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	2.60	2.75
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.80	13.79
tblVehicleEF	MHD	525.09	525.45
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.48	3.63
tblVehicleEF	MHD	1.61	1.17
tblVehicleEF	MHD	1.64	1.54
tblVehicleEF	MHD	0.01	9.8950e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	9.1040e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.88	0.81
tblVehicleEF	MHD	5.5660e-003	5.5700e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.1000e-004	7.8900e-004
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.20	0.21
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.94	0.86
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	2.74	3.04
tblVehicleEF	OBUS	0.97	0.91

tblVehicleEF	OBUS	8.82	8.39
tblVehicleEF	OBUS	534.88	534.43
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.65	3.88
tblVehicleEF	OBUS	2.29	1.64
tblVehicleEF	OBUS	1.25	1.19
tblVehicleEF	OBUS	9.5470e-003	9.0830e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	8.7830e-003	8.3560e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.47	0.52
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.54	0.51
tblVehicleEF	OBUS	5.6700e-003	5.6650e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.1900e-004	5.1100e-004

tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.59
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.58	0.54
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	1.99	2.21
tblVehicleEF	OBUS	0.98	0.92
tblVehicleEF	OBUS	7.13	6.78
tblVehicleEF	OBUS	566.66	566.19
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.79	4.00
tblVehicleEF	OBUS	2.15	1.54
tblVehicleEF	OBUS	1.20	1.14
tblVehicleEF	OBUS	8.0480e-003	7.6570e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	7.4040e-003	7.0440e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.44	0.49
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.48	0.45
tblVehicleEF	OBUS	6.0070e-003	6.0020e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	4.9100e-004	4.8400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.55
tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.32	0.32
tblVehicleEF	OBUS	0.51	0.48
tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	3.78	4.19
tblVehicleEF	OBUS	0.97	0.91
tblVehicleEF	OBUS	9.01	8.57
tblVehicleEF	OBUS	491.00	490.59
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.44	3.71

tblVehicleEF	OBUS	2.24	1.61
tblVehicleEF	OBUS	1.25	1.20
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.50	0.56
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.35	0.35
tblVehicleEF	OBUS	0.55	0.52
tblVehicleEF	OBUS	5.2050e-003	5.2000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.2200e-004	5.1400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.57	0.63
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.35	0.35

tblVehicleEF	OBUS	0.59	0.55
tblVehicleEF	SBUS	4.4530e-003	4.5470e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.05	1.09
tblVehicleEF	SBUS	2.96	2.81
tblVehicleEF	SBUS	27.16	26.08
tblVehicleEF	SBUS	547.00	550.57
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.58	7.45
tblVehicleEF	SBUS	7.03	6.81
tblVehicleEF	SBUS	2.02	1.96
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.10	0.10
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.30	0.29

tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.66	1.58
tblVehicleEF	SBUS	5.7980e-003	5.8360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7600e-003	1.7380e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.77	1.68
tblVehicleEF	SBUS	4.1970e-003	4.2850e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	0.76	0.79
tblVehicleEF	SBUS	3.03	2.88
tblVehicleEF	SBUS	23.01	22.08
tblVehicleEF	SBUS	579.49	583.28
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.82	7.69
tblVehicleEF	SBUS	6.62	6.40
tblVehicleEF	SBUS	1.91	1.85
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04

tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	9.7360e-003
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.30	0.29
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.49	1.41
tblVehicleEF	SBUS	6.1430e-003	6.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.6900e-003	1.6700e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.34	0.33
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.59	1.51
tblVehicleEF	SBUS	4.8080e-003	4.9080e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.45	1.50
tblVehicleEF	SBUS	2.94	2.79
tblVehicleEF	SBUS	27.94	26.83

tblVehicleEF	SBUS	502.12	505.40
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.24	7.12
tblVehicleEF	SBUS	6.92	6.69
tblVehicleEF	SBUS	2.04	1.98
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.29	0.29
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.69	1.61
tblVehicleEF	SBUS	5.3230e-003	5.3580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7730e-003	1.7510e-003
tblVehicleEF	SBUS	0.04	0.04

tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.81	1.72
tblVehicleEF	UBUS	4.38	4.28
tblVehicleEF	UBUS	9.86	9.69
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.91	10.64
tblVehicleEF	UBUS	1.17	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.72	0.71
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8100e-004	4.7800e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003

tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.78	0.77
tblVehicleEF	UBUS	4.44	4.34
tblVehicleEF	UBUS	8.28	8.13
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.28	10.02
tblVehicleEF	UBUS	1.12	1.11
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10
tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.65	0.64
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.5400e-004	4.5100e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10

tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.81	0.80
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.70	0.69
tblVehicleEF	UBUS	4.37	4.27
tblVehicleEF	UBUS	9.99	9.82
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.70	10.43
tblVehicleEF	UBUS	1.18	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003
tblVehicleEF	UBUS	0.72	0.70
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8300e-004	4.8000e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003

tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.78	0.77

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1393	1.1560	1.0661	2.1300e-003	0.0298	0.0653	0.0951	4.8100e-003	0.0645	0.0693	0.0000	182.3734	182.3734	0.0231	0.0000	182.8587
Total	**0.1393**	**1.1560**	**1.0661**	**2.1300e-003**	**0.0298**	**0.0653**	**0.0951**	**4.8100e-003**	**0.0645**	**0.0693**	**0.0000**	**182.3734**	**182.3734**	**0.0231**	**0.0000**	**182.8587**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.1393	1.1560	1.0661	2.1300e-003	0.0298	0.0653	0.0951	4.8100e-003	0.0645	0.0693	0.0000	182.3732	182.3732	0.0231	0.0000	182.8585
Total	**0.1393**	**1.1560**	**1.0661**	**2.1300e-003**	**0.0298**	**0.0653**	**0.0951**	**4.8100e-003**	**0.0645**	**0.0693**	**0.0000**	**182.3732**	**182.3732**	**0.0231**	**0.0000**	**182.8585**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	6/17/2019	5	74	

Acres of Grading (Site Preparation Phase): 37

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0196	0.0000	0.0196	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1366	1.1519	1.0236	2.0000e-003		0.0652	0.0652		0.0644	0.0644	0.0000	173.9066	173.9066	0.0227	0.0000	174.3833
Total	**0.1366**	**1.1519**	**1.0236**	**2.0000e-003**	**0.0196**	**0.0652**	**0.0848**	**2.1200e-003**	**0.0644**	**0.0666**	**0.0000**	**173.9066**	**173.9066**	**0.0227**	**0.0000**	**174.3833**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	4.0900e-003	0.0425	1.2000e-004	0.0102	8.0000e-005	0.0102	2.7000e-003	7.0000e-005	2.7700e-003	0.0000	8.4668	8.4668	4.1000e-004	0.0000	8.4754
Total	**2.7400e-003**	**4.0900e-003**	**0.0425**	**1.2000e-004**	**0.0102**	**8.0000e-005**	**0.0102**	**2.7000e-003**	**7.0000e-005**	**2.7700e-003**	**0.0000**	**8.4668**	**8.4668**	**4.1000e-004**	**0.0000**	**8.4754**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0196	0.0000	0.0196	2.1200e-003	0.0000	2.1200e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1366	1.1519	1.0236	2.0000e-003		0.0652	0.0652		0.0644	0.0644	0.0000	173.9064	173.9064	0.0227	0.0000	174.3831
Total	**0.1366**	**1.1519**	**1.0236**	**2.0000e-003**	**0.0196**	**0.0652**	**0.0848**	**2.1200e-003**	**0.0644**	**0.0666**	**0.0000**	**173.9064**	**173.9064**	**0.0227**	**0.0000**	**174.3831**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	2.7400e-003	4.0900e-003	0.0425	1.2000e-004	0.0102	8.0000e-005	0.0102	2.7000e-003	7.0000e-005	2.7700e-003	0.0000	8.4668	8.4668	4.1000e-004	0.0000	8.4754
Total	**2.7400e-003**	**4.0900e-003**	**0.0425**	**1.2000e-004**	**0.0102**	**8.0000e-005**	**0.0102**	**2.7000e-003**	**7.0000e-005**	**2.7700e-003**	**0.0000**	**8.4668**	**8.4668**	**4.1000e-004**	**0.0000**	**8.4754**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

AIR MODELING RESULTS
BUILD ALTERNATIVE 2
DAILY EMISSIONS

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OCSD Westside Manholes Alternative 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	119.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0897	0.9160	0.6848	1.6000e-003	0.0415	0.0403	0.0818	6.0700e-003	0.0370	0.0431	0.0000	140.7630	140.7630	0.0416	0.0000	141.6360
Total	**0.0897**	**0.9160**	**0.6848**	**1.6000e-003**	**0.0415**	**0.0403**	**0.0818**	**6.0700e-003**	**0.0370**	**0.0431**	**0.0000**	**140.7630**	**140.7630**	**0.0416**	**0.0000**	**141.6360**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.0897	0.9160	0.6847	1.6000e-003	0.0415	0.0403	0.0818	6.0700e-003	0.0370	0.0431	0.0000	140.7628	140.7628	0.0416	0.0000	141.6359
Total	**0.0897**	**0.9160**	**0.6847**	**1.6000e-003**	**0.0415**	**0.0403**	**0.0818**	**6.0700e-003**	**0.0370**	**0.0431**	**0.0000**	**140.7628**	**140.7628**	**0.0416**	**0.0000**	**141.6359**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	8/19/2019	5	119	

Acres of Grading (Site Preparation Phase): 59.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0316	0.0000	0.0316	3.4100e-003	0.0000	3.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0865	0.9032	0.6395	1.4500e-003		0.0401	0.0401		0.0369	0.0369	0.0000	130.2075	130.2075	0.0412	0.0000	131.0727
Total	**0.0865**	**0.9032**	**0.6395**	**1.4500e-003**	**0.0316**	**0.0401**	**0.0716**	**3.4100e-003**	**0.0369**	**0.0403**	**0.0000**	**130.2075**	**130.2075**	**0.0412**	**0.0000**	**131.0727**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	0.0128	0.0453	1.5000e-004	9.9500e-003	2.0000e-004	0.0102	2.6700e-003	1.8000e-004	2.8500e-003	0.0000	10.5554	10.5554	3.8000e-004	0.0000	10.5634
Total	**3.2200e-003**	**0.0128**	**0.0453**	**1.5000e-004**	**9.9500e-003**	**2.0000e-004**	**0.0102**	**2.6700e-003**	**1.8000e-004**	**2.8500e-003**	**0.0000**	**10.5554**	**10.5554**	**3.8000e-004**	**0.0000**	**10.5634**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0316	0.0000	0.0316	3.4100e-003	0.0000	3.4100e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.0865	0.9032	0.6395	1.4500e-003		0.0401	0.0401		0.0369	0.0369	0.0000	130.2074	130.2074	0.0412	0.0000	131.0725
Total	**0.0865**	**0.9032**	**0.6395**	**1.4500e-003**	**0.0316**	**0.0401**	**0.0716**	**3.4100e-003**	**0.0369**	**0.0403**	**0.0000**	**130.2074**	**130.2074**	**0.0412**	**0.0000**	**131.0725**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.2200e-003	0.0128	0.0453	1.5000e-004	9.9500e-003	2.0000e-004	0.0102	2.6700e-003	1.8000e-004	2.8500e-003	0.0000	10.5554	10.5554	3.8000e-004	0.0000	10.5634
Total	**3.2200e-003**	**0.0128**	**0.0453**	**1.5000e-004**	**9.9500e-003**	**2.0000e-004**	**0.0102**	**2.6700e-003**	**1.8000e-004**	**2.8500e-003**	**0.0000**	**10.5554**	**10.5554**	**3.8000e-004**	**0.0000**	**10.5634**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Westside CIPP Alternative 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	202.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.16	3.29
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	53.80	52.76
tblVehicleEF	HHD	528.22	527.95
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.93	3.62
tblVehicleEF	HHD	4.30	3.74
tblVehicleEF	HHD	3.53	3.46
tblVehicleEF	HHD	9.7330e-003	9.4770e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	8.9550e-003	8.7190e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.42	1.31
tblVehicleEF	HHD	5.5990e-003	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4410e-003	1.4160e-003
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.64	0.67
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.52	1.40
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.30	2.39
tblVehicleEF	HHD	1.70	1.71
tblVehicleEF	HHD	43.34	42.41
tblVehicleEF	HHD	559.60	559.32
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	4.06	3.74
tblVehicleEF	HHD	4.07	3.53
tblVehicleEF	HHD	3.38	3.32
tblVehicleEF	HHD	8.2050e-003	7.9890e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	7.5490e-003	7.3500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.53	0.55
tblVehicleEF	HHD	1.6920e-003	1.6360e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.24	1.14
tblVehicleEF	HHD	5.9320e-003	5.9290e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.2710e-003	1.2490e-003
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.60	0.63
tblVehicleEF	HHD	1.6920e-003	1.6360e-003

tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.32	1.22
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	4.35	4.54
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	54.58	53.53
tblVehicleEF	HHD	484.88	484.63
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.76	3.46
tblVehicleEF	HHD	4.23	3.68
tblVehicleEF	HHD	3.54	3.47
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.61	0.63

tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.44	1.33
tblVehicleEF	HHD	5.1400e-003	5.1370e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4540e-003	1.4290e-003
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.69	0.72
tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.54	1.42
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.77	0.74
tblVehicleEF	LDA	1.39	1.29
tblVehicleEF	LDA	248.70	244.10
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5970e-003	3.6040e-003
tblVehicleEF	LDA	7.6100e-004	7.6000e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.86	0.82
tblVehicleEF	LDA	1.09	1.01
tblVehicleEF	LDA	261.62	256.81
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	3.7860e-003	3.7940e-003
tblVehicleEF	LDA	7.5600e-004	7.5500e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.74	0.71
tblVehicleEF	LDA	1.44	1.34
tblVehicleEF	LDA	244.71	240.18
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5380e-003	3.5460e-003
tblVehicleEF	LDA	7.6200e-004	7.6100e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.04	1.90
tblVehicleEF	LDT1	3.76	3.46
tblVehicleEF	LDT1	303.54	299.16
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	4.1550e-003	4.1650e-003
tblVehicleEF	LDT1	9.1300e-004	9.0900e-004
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.24	2.09
tblVehicleEF	LDT1	2.96	2.73
tblVehicleEF	LDT1	318.77	314.25
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.87	0.83

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	4.3690e-003	4.3800e-003
tblVehicleEF	LDT1	8.9900e-004	8.9600e-004
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.87	0.83
tblVehicleEF	LDT1	0.25	0.23
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	1.98	1.84
tblVehicleEF	LDT1	3.88	3.57
tblVehicleEF	LDT1	299.01	294.68
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.28	0.26

tblVehicleEF	LDT1	4.0920e-003	4.1010e-003
tblVehicleEF	LDT1	9.1500e-004	9.1100e-004
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.07	1.01
tblVehicleEF	LDT2	2.03	1.86
tblVehicleEF	LDT2	369.06	364.55
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8850e-003	4.8940e-003

tblVehicleEF	LDT2	1.0390e-003	1.0370e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.19	1.12
tblVehicleEF	LDT2	1.59	1.46
tblVehicleEF	LDT2	387.88	383.18
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	5.1360e-003	5.1460e-003
tblVehicleEF	LDT2	1.0320e-003	1.0300e-003

tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.03	0.97
tblVehicleEF	LDT2	2.10	1.92
tblVehicleEF	LDT2	363.32	358.87
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8080e-003	4.8170e-003
tblVehicleEF	LDT2	1.0410e-003	1.0380e-003
tblVehicleEF	LDT2	0.06	0.06

tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.99	0.89
tblVehicleEF	LHD1	4.05	3.86
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.97	0.90
tblVehicleEF	LHD1	1.31	1.27
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.37	0.34
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3700e-004	5.3400e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	1.00	0.91
tblVehicleEF	LHD1	3.28	3.12
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.90	0.83
tblVehicleEF	LHD1	1.26	1.22
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004

tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.32	0.30
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.2400e-004	5.2100e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.35	0.32
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.98	0.89

tblVehicleEF	LHD1	4.09	3.89
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.95	0.88
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.37	0.35
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3800e-004	5.3500e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.35	2.23
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.53	1.41
tblVehicleEF	LHD2	0.86	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6000e-004	3.5800e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.66	0.60
tblVehicleEF	LHD2	1.91	1.81
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.44	1.33
tblVehicleEF	LHD2	0.83	0.80
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.5300e-004	3.5100e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.21	0.19
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15

tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.38	2.25
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.51	1.39
tblVehicleEF	LHD2	0.87	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6100e-004	3.5900e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.24	0.22
tblVehicleEF	MCY	20.47	20.19
tblVehicleEF	MCY	10.01	10.04
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.06	2.05
tblVehicleEF	MCY	1.9650e-003	1.9680e-003
tblVehicleEF	MCY	6.5000e-004	6.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55

tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.21	2.20
tblVehicleEF	MCY	19.82	19.56
tblVehicleEF	MCY	8.80	8.81
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.32	2.31
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.81	1.81
tblVehicleEF	MCY	1.9530e-003	1.9570e-003
tblVehicleEF	MCY	6.2300e-004	6.1900e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.55	2.55
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.95	1.94

tblVehicleEF	MCY	20.37	20.09
tblVehicleEF	MCY	10.06	10.09
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.13	1.12
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.08	2.07
tblVehicleEF	MCY	1.9640e-003	1.9670e-003
tblVehicleEF	MCY	6.5100e-004	6.4700e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.23	2.22
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.77	1.65

tblVehicleEF	MDV	3.76	3.50
tblVehicleEF	MDV	488.74	483.58
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.22	0.20
tblVehicleEF	MDV	0.35	0.32
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	6.2060e-003	6.2210e-003
tblVehicleEF	MDV	1.3410e-003	1.3380e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.96	1.82
tblVehicleEF	MDV	2.96	2.75

tblVehicleEF	MDV	514.22	508.88
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.19	0.18
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.27	0.25
tblVehicleEF	MDV	6.5340e-003	6.5510e-003
tblVehicleEF	MDV	1.3270e-003	1.3250e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.29	0.26
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.72	1.59
tblVehicleEF	MDV	3.88	3.61
tblVehicleEF	MDV	481.25	476.17

tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.35	0.33
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.32	0.30
tblVehicleEF	MDV	6.1100e-003	6.1250e-003
tblVehicleEF	MDV	1.3430e-003	1.3400e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.34	0.32
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.03	5.60
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.24	1.15

tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1500e-004	4.0600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MH	1.62	1.28
tblVehicleEF	MH	4.80	4.47
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.14	1.06
tblVehicleEF	MH	0.65	0.62

tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.29	0.27
tblVehicleEF	MH	6.6210e-003	6.6360e-003
tblVehicleEF	MH	3.9500e-004	3.8700e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.31	0.29
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.06	5.63
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.21	1.13
tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1600e-004	4.0700e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MHD	7.4570e-003	7.8620e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.89	1.99
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.46	13.47
tblVehicleEF	MHD	572.02	572.41
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	4.69	3.80
tblVehicleEF	MHD	1.64	1.20
tblVehicleEF	MHD	1.63	1.53
tblVehicleEF	MHD	0.01	8.1320e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	7.4820e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.16	0.17
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.86	0.79
tblVehicleEF	MHD	6.0640e-003	6.0680e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.0400e-004	7.8400e-004
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.18	0.19
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.11	0.10

tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.92	0.85
tblVehicleEF	MHD	7.0270e-003	7.4100e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.37	1.45
tblVehicleEF	MHD	0.69	0.61
tblVehicleEF	MHD	11.66	10.85
tblVehicleEF	MHD	606.00	606.42
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.84	3.92
tblVehicleEF	MHD	1.54	1.12
tblVehicleEF	MHD	1.56	1.47
tblVehicleEF	MHD	9.3480e-003	6.8560e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	8.6000e-003	6.3070e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	2.2930e-003	2.1990e-003

tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.76	0.70
tblVehicleEF	MHD	6.4240e-003	6.4280e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	7.5700e-004	7.3900e-004
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	2.2930e-003	2.1990e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.81	0.75
tblVehicleEF	MHD	8.0500e-003	8.4880e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	2.60	2.75
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.80	13.79
tblVehicleEF	MHD	525.09	525.45
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.48	3.63
tblVehicleEF	MHD	1.61	1.17
tblVehicleEF	MHD	1.64	1.54
tblVehicleEF	MHD	0.01	9.8950e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	9.1040e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.88	0.81
tblVehicleEF	MHD	5.5660e-003	5.5700e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.1000e-004	7.8900e-004
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.20	0.21
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.94	0.86
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	2.74	3.04
tblVehicleEF	OBUS	0.97	0.91

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tblVehicleEF	OBUS	534.88	534.43
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.65	3.88
tblVehicleEF	OBUS	2.29	1.64
tblVehicleEF	OBUS	1.25	1.19
tblVehicleEF	OBUS	9.5470e-003	9.0830e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	8.7830e-003	8.3560e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.47	0.52
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.54	0.51
tblVehicleEF	OBUS	5.6700e-003	5.6650e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.1900e-004	5.1100e-004

tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.59
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.58	0.54
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	1.99	2.21
tblVehicleEF	OBUS	0.98	0.92
tblVehicleEF	OBUS	7.13	6.78
tblVehicleEF	OBUS	566.66	566.19
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
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tblVehicleEF	OBUS	2.15	1.54
tblVehicleEF	OBUS	1.20	1.14
tblVehicleEF	OBUS	8.0480e-003	7.6570e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	7.4040e-003	7.0440e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
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tblVehicleEF	OBUS	7.8500e-004	7.8400e-004
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tblVehicleEF	OBUS	6.0070e-003	6.0020e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	4.9100e-004	4.8400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
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tblVehicleEF	OBUS	0.50	0.55
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tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	3.78	4.19
tblVehicleEF	OBUS	0.97	0.91
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tblVehicleEF	OBUS	491.00	490.59
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
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tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
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tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
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tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.35	0.35
tblVehicleEF	OBUS	0.55	0.52
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.2200e-004	5.1400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.57	0.63
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.35	0.35

tblVehicleEF	OBUS	0.59	0.55
tblVehicleEF	SBUS	4.4530e-003	4.5470e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.05	1.09
tblVehicleEF	SBUS	2.96	2.81
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tblVehicleEF	SBUS	547.00	550.57
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.58	7.45
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tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.10	0.10
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.30	0.29

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tblVehicleEF	SBUS	5.7980e-003	5.8360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7600e-003	1.7380e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.77	1.68
tblVehicleEF	SBUS	4.1970e-003	4.2850e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	0.76	0.79
tblVehicleEF	SBUS	3.03	2.88
tblVehicleEF	SBUS	23.01	22.08
tblVehicleEF	SBUS	579.49	583.28
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.82	7.69
tblVehicleEF	SBUS	6.62	6.40
tblVehicleEF	SBUS	1.91	1.85
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04

tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	9.7360e-003
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.30	0.29
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.49	1.41
tblVehicleEF	SBUS	6.1430e-003	6.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.6900e-003	1.6700e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.34	0.33
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.59	1.51
tblVehicleEF	SBUS	4.8080e-003	4.9080e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.45	1.50
tblVehicleEF	SBUS	2.94	2.79
tblVehicleEF	SBUS	27.94	26.83

tblVehicleEF	SBUS	502.12	505.40
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.24	7.12
tblVehicleEF	SBUS	6.92	6.69
tblVehicleEF	SBUS	2.04	1.98
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.29	0.29
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.69	1.61
tblVehicleEF	SBUS	5.3230e-003	5.3580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7730e-003	1.7510e-003
tblVehicleEF	SBUS	0.04	0.04

tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.81	1.72
tblVehicleEF	UBUS	4.38	4.28
tblVehicleEF	UBUS	9.86	9.69
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.91	10.64
tblVehicleEF	UBUS	1.17	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.72	0.71
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8100e-004	4.7800e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003

tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.78	0.77
tblVehicleEF	UBUS	4.44	4.34
tblVehicleEF	UBUS	8.28	8.13
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.28	10.02
tblVehicleEF	UBUS	1.12	1.11
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10
tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.65	0.64
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.5400e-004	4.5100e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10

tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.81	0.80
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.70	0.69
tblVehicleEF	UBUS	4.37	4.27
tblVehicleEF	UBUS	9.99	9.82
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.70	10.43
tblVehicleEF	UBUS	1.18	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003
tblVehicleEF	UBUS	0.72	0.70
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8300e-004	4.8000e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003

tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.78	0.77

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3819	3.1805	2.9223	5.8800e-003	0.0817	0.1786	0.2603	0.0133	0.1764	0.1898	0.0000	504.5806	504.5806	0.0630	0.0000	505.9044
Total	**0.3819**	**3.1805**	**2.9223**	**5.8800e-003**	**0.0817**	**0.1786**	**0.2603**	**0.0133**	**0.1764**	**0.1898**	**0.0000**	**504.5806**	**504.5806**	**0.0630**	**0.0000**	**505.9044**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.3819	3.1805	2.9223	5.8800e-003	0.0817	0.1786	0.2603	0.0133	0.1764	0.1898	0.0000	504.5801	504.5801	0.0630	0.0000	505.9039
Total	**0.3819**	**3.1805**	**2.9223**	**5.8800e-003**	**0.0817**	**0.1786**	**0.2603**	**0.0133**	**0.1764**	**0.1898**	**0.0000**	**504.5801**	**504.5801**	**0.0630**	**0.0000**	**505.9039**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	12/12/2019	5	202	

Acres of Grading (Site Preparation Phase): 101

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0536	0.0000	0.0536	5.7800e-003	0.0000	5.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3728	3.1443	2.7942	5.4700e-003		0.1780	0.1780		0.1759	0.1759	0.0000	474.7179	474.7179	0.0620	0.0000	476.0193
Total	**0.3728**	**3.1443**	**2.7942**	**5.4700e-003**	**0.0536**	**0.1780**	**0.2316**	**5.7800e-003**	**0.1759**	**0.1817**	**0.0000**	**474.7179**	**474.7179**	**0.0620**	**0.0000**	**476.0193**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-003	0.0363	0.1281	4.1000e-004	0.0282	5.6000e-004	0.0287	7.5400e-003	5.2000e-004	8.0600e-003	0.0000	29.8627	29.8627	1.0700e-003	0.0000	29.8851
Total	**9.1000e-003**	**0.0363**	**0.1281**	**4.1000e-004**	**0.0282**	**5.6000e-004**	**0.0287**	**7.5400e-003**	**5.2000e-004**	**8.0600e-003**	**0.0000**	**29.8627**	**29.8627**	**1.0700e-003**	**0.0000**	**29.8851**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0536	0.0000	0.0536	5.7800e-003	0.0000	5.7800e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3728	3.1443	2.7942	5.4700e-003		0.1780	0.1780		0.1759	0.1759	0.0000	474.7174	474.7174	0.0620	0.0000	476.0188
Total	**0.3728**	**3.1443**	**2.7942**	**5.4700e-003**	**0.0536**	**0.1780**	**0.2316**	**5.7800e-003**	**0.1759**	**0.1817**	**0.0000**	**474.7174**	**474.7174**	**0.0620**	**0.0000**	**476.0188**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.1000e-003	0.0363	0.1281	4.1000e-004	0.0282	5.6000e-004	0.0287	7.5400e-003	5.2000e-004	8.0600e-003	0.0000	29.8627	29.8627	1.0700e-003	0.0000	29.8851
Total	**9.1000e-003**	**0.0363**	**0.1281**	**4.1000e-004**	**0.0282**	**5.6000e-004**	**0.0287**	**7.5400e-003**	**5.2000e-004**	**8.0600e-003**	**0.0000**	**29.8627**	**29.8627**	**1.0700e-003**	**0.0000**	**29.8851**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Los Alamitos Replacement Alternative 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised phasing

Off-road Equipment - revised to include equipment and operations

Off-road Equipment - revised to include equipment and operations

Off-road Equipment - revised to include equipment and operations

Trips and VMT - revised to include trips

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	362.00
tblConstructionPhase	NumDays	0.00	120.00
tblConstructionPhase	NumDays	0.00	362.00

tblConstructionPhase	PhaseEndDate	12/13/2021	7/23/2020
tblConstructionPhase	PhaseEndDate	1/7/2021	7/23/2020
tblConstructionPhase	PhaseStartDate	7/24/2020	3/6/2019
tblConstructionPhase	PhaseStartDate	7/24/2020	2/7/2020
tblGrading	MaterialExported	0.00	17,310.00
tblGrading	MaterialExported	0.00	17,310.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.7285	6.9555	5.4383	0.0125	0.2953	0.3262	0.6215	0.1019	0.3071	0.4090	0.0000	1,099.8926	1,099.8926	0.2781	0.0000	1,105.7328
2020	0.5101	4.7257	4.0719	9.6300e-003	0.2914	0.2165	0.5078	0.1009	0.2033	0.3042	0.0000	828.0403	828.0403	0.2136	0.0000	832.5252
Total	**1.2385**	**11.6812**	**9.5101**	**0.0222**	**0.5867**	**0.5426**	**1.1293**	**0.2028**	**0.5104**	**0.7132**	**0.0000**	**1,927.9329**	**1,927.9329**	**0.4917**	**0.0000**	**1,938.2579**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.7285	6.9555	5.4382	0.0125	0.2953	0.3262	0.6215	0.1019	0.3071	0.4090	0.0000	1,099.8914	1,099.8914	0.2781	0.0000	1,105.7315
2020	0.5101	4.7257	4.0719	9.6300e-003	0.2914	0.2165	0.5078	0.1009	0.2033	0.3042	0.0000	828.0394	828.0394	0.2136	0.0000	832.5243
Total	**1.2385**	**11.6812**	**9.5101**	**0.0222**	**0.5867**	**0.5426**	**1.1293**	**0.2028**	**0.5104**	**0.7132**	**0.0000**	**1,927.9307**	**1,927.9307**	**0.4917**	**0.0000**	**1,938.2558**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	7/23/2020	5	362	
2	Grading	Grading	3/6/2019	7/23/2020	5	362	
3	Paving	Paving	2/7/2020	7/23/2020	5	120	

Acres of Grading (Site Preparation Phase): 181

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Off-Highway Trucks	4	8.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Cranes	1	6.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	4.00	400	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Off-Highway Trucks	1	5.00	400	0.38
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	11	28.00		2,164.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix
Grading	9	23.00		2,164.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix
Paving	9	23.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0970	0.0000	0.0970	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6922	764.6922	0.2060	0.0000	769.0178
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0970**	**0.2225**	**0.3194**	**0.0105**	**0.2097**	**0.2202**	**0.0000**	**764.6922**	**764.6922**	**0.2060**	**0.0000**	**769.0178**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0432	0.1528	4.9000e-004	0.0336	6.7000e-004	0.0342	8.9900e-003	6.2000e-004	9.6100e-003	0.0000	35.5987	35.5987	1.2700e-003	0.0000	35.6254
Total	**0.0109**	**0.0432**	**0.1528**	**4.9000e-004**	**0.0336**	**6.7000e-004**	**0.0342**	**8.9900e-003**	**6.2000e-004**	**9.6100e-003**	**0.0000**	**35.5987**	**35.5987**	**1.2700e-003**	**0.0000**	**35.6254**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0970	0.0000	0.0970	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5086	4.8635	3.5610	8.5900e-003		0.2225	0.2225		0.2097	0.2097	0.0000	764.6913	764.6913	0.2060	0.0000	769.0169
Total	**0.5086**	**4.8635**	**3.5610**	**8.5900e-003**	**0.0970**	**0.2225**	**0.3194**	**0.0105**	**0.2097**	**0.2202**	**0.0000**	**764.6913**	**764.6913**	**0.2060**	**0.0000**	**769.0169**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	0.0109	0.0432	0.1528	4.9000e-004	0.0336	6.7000e-004	0.0342	8.9900e-003	6.2000e-004	9.6100e-003	0.0000	35.5987	35.5987	1.2700e-003	0.0000	35.6254
Total	**0.0109**	**0.0432**	**0.1528**	**4.9000e-004**	**0.0336**	**6.7000e-004**	**0.0342**	**8.9900e-003**	**6.2000e-004**	**9.6100e-003**	**0.0000**	**35.5987**	**35.5987**	**1.2700e-003**	**0.0000**	**35.6254**

3.2 Site Preparation - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0970	0.0000	0.0970	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3211	2.9628	2.3739	5.8700e-003		0.1329	0.1329		0.1252	0.1252	0.0000	513.4550	513.4550	0.1401	0.0000	516.3965
Total	**0.3211**	**2.9628**	**2.3739**	**5.8700e-003**	**0.0970**	**0.1329**	**0.2299**	**0.0105**	**0.1252**	**0.1358**	**0.0000**	**513.4550**	**513.4550**	**0.1401**	**0.0000**	**516.3965**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0500e-003	0.0269	0.0984	3.3000e-004	0.0230	4.5000e-004	0.0234	6.1500e-003	4.1000e-004	6.5600e-003	0.0000	23.5183	23.5183	8.2000e-004	0.0000	23.5356
Total	**7.0500e-003**	**0.0269**	**0.0984**	**3.3000e-004**	**0.0230**	**4.5000e-004**	**0.0234**	**6.1500e-003**	**4.1000e-004**	**6.5600e-003**	**0.0000**	**23.5183**	**23.5183**	**8.2000e-004**	**0.0000**	**23.5356**

3.2 Site Preparation - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0970	0.0000	0.0970	0.0105	0.0000	0.0105	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.3211	2.9628	2.3739	5.8700e-003		0.1329	0.1329		0.1252	0.1252	0.0000	513.4544	513.4544	0.1401	0.0000	516.3959
Total	**0.3211**	**2.9628**	**2.3739**	**5.8700e-003**	**0.0970**	**0.1329**	**0.2299**	**0.0105**	**0.1252**	**0.1358**	**0.0000**	**513.4544**	**513.4544**	**0.1401**	**0.0000**	**516.3959**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	7.0500e-003	0.0269	0.0984	3.3000e-004	0.0230	4.5000e-004	0.0234	6.1500e-003	4.1000e-004	6.5600e-003	0.0000	23.5183	23.5183	8.2000e-004	0.0000	23.5356
Total	**7.0500e-003**	**0.0269**	**0.0984**	**3.3000e-004**	**0.0230**	**4.5000e-004**	**0.0234**	**6.1500e-003**	**4.1000e-004**	**6.5600e-003**	**0.0000**	**23.5183**	**23.5183**	**8.2000e-004**	**0.0000**	**23.5356**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1372	0.0000	0.1372	0.0750	0.0000	0.0750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3598	270.3598	0.0698	0.0000	271.8258
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.1372**	**0.1025**	**0.2397**	**0.0750**	**0.0963**	**0.1713**	**0.0000**	**270.3598**	**270.3598**	**0.0698**	**0.0000**	**271.8258**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0355	0.1255	4.0000e-004	0.0276	5.5000e-004	0.0281	7.3800e-003	5.1000e-004	7.8900e-003	0.0000	29.2418	29.2418	1.0400e-003	0.0000	29.2637
Total	**8.9200e-003**	**0.0355**	**0.1255**	**4.0000e-004**	**0.0276**	**5.5000e-004**	**0.0281**	**7.3800e-003**	**5.1000e-004**	**7.8900e-003**	**0.0000**	**29.2418**	**29.2418**	**1.0400e-003**	**0.0000**	**29.2637**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1372	0.0000	0.1372	0.0750	0.0000	0.0750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.2002	2.0133	1.5990	3.0500e-003		0.1025	0.1025		0.0963	0.0963	0.0000	270.3595	270.3595	0.0698	0.0000	271.8255
Total	**0.2002**	**2.0133**	**1.5990**	**3.0500e-003**	**0.1372**	**0.1025**	**0.2397**	**0.0750**	**0.0963**	**0.1713**	**0.0000**	**270.3595**	**270.3595**	**0.0698**	**0.0000**	**271.8255**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	8.9200e-003	0.0355	0.1255	4.0000e-004	0.0276	5.5000e-004	0.0281	7.3800e-003	5.1000e-004	7.8900e-003	0.0000	29.2418	29.2418	1.0400e-003	0.0000	29.2637
Total	**8.9200e-003**	**0.0355**	**0.1255**	**4.0000e-004**	**0.0276**	**5.5000e-004**	**0.0281**	**7.3800e-003**	**5.1000e-004**	**7.8900e-003**	**0.0000**	**29.2418**	**29.2418**	**1.0400e-003**	**0.0000**	**29.2637**

3.3 Grading - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1372	0.0000	0.1372	0.0750	0.0000	0.0750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1249	1.2395	1.0730	2.0800e-003		0.0611	0.0611		0.0574	0.0574	0.0000	181.7344	181.7344	0.0474	0.0000	182.7304
Total	**0.1249**	**1.2395**	**1.0730**	**2.0800e-003**	**0.1372**	**0.0611**	**0.1984**	**0.0750**	**0.0574**	**0.1325**	**0.0000**	**181.7344**	**181.7344**	**0.0474**	**0.0000**	**182.7304**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	0.0221	0.0809	2.8000e-004	0.0189	3.7000e-004	0.0192	5.0500e-003	3.4000e-004	5.3900e-003	0.0000	19.3186	19.3186	6.8000e-004	0.0000	19.3328
Total	**5.7900e-003**	**0.0221**	**0.0809**	**2.8000e-004**	**0.0189**	**3.7000e-004**	**0.0192**	**5.0500e-003**	**3.4000e-004**	**5.3900e-003**	**0.0000**	**19.3186**	**19.3186**	**6.8000e-004**	**0.0000**	**19.3328**

3.3 Grading - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.1372	0.0000	0.1372	0.0750	0.0000	0.0750	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.1249	1.2395	1.0730	2.0800e-003		0.0611	0.0611		0.0574	0.0574	0.0000	181.7342	181.7342	0.0474	0.0000	182.7302
Total	**0.1249**	**1.2395**	**1.0730**	**2.0800e-003**	**0.1372**	**0.0611**	**0.1984**	**0.0750**	**0.0574**	**0.1325**	**0.0000**	**181.7342**	**181.7342**	**0.0474**	**0.0000**	**182.7302**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.7900e-003	0.0221	0.0809	2.8000e-004	0.0189	3.7000e-004	0.0192	5.0500e-003	3.4000e-004	5.3900e-003	0.0000	19.3186	19.3186	6.8000e-004	0.0000	19.3328
Total	**5.7900e-003**	**0.0221**	**0.0809**	**2.8000e-004**	**0.0189**	**3.7000e-004**	**0.0192**	**5.0500e-003**	**3.4000e-004**	**5.3900e-003**	**0.0000**	**19.3186**	**19.3186**	**6.8000e-004**	**0.0000**	**19.3328**

3.4 Paving - 2020

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0465	0.4564	0.3797	8.5000e-004		0.0213	0.0213		0.0196	0.0196	0.0000	74.2436	74.2436	0.0240	0.0000	74.7479
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0465**	**0.4564**	**0.3797**	**8.5000e-004**		**0.0213**	**0.0213**		**0.0196**	**0.0196**	**0.0000**	**74.2436**	**74.2436**	**0.0240**	**0.0000**	**74.7479**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	0.0180	0.0660	2.2000e-004	0.0154	3.0000e-004	0.0157	4.1200e-003	2.8000e-004	4.4000e-003	0.0000	15.7703	15.7703	5.5000e-004	0.0000	15.7819
Total	**4.7300e-003**	**0.0180**	**0.0660**	**2.2000e-004**	**0.0154**	**3.0000e-004**	**0.0157**	**4.1200e-003**	**2.8000e-004**	**4.4000e-003**	**0.0000**	**15.7703**	**15.7703**	**5.5000e-004**	**0.0000**	**15.7819**

3.4 Paving - 2020

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	0.0465	0.4564	0.3797	8.5000e-004		0.0213	0.0213		0.0196	0.0196	0.0000	74.2435	74.2435	0.0240	0.0000	74.7478
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0465**	**0.4564**	**0.3797**	**8.5000e-004**		**0.0213**	**0.0213**		**0.0196**	**0.0196**	**0.0000**	**74.2435**	**74.2435**	**0.0240**	**0.0000**	**74.7478**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.7300e-003	0.0180	0.0660	2.2000e-004	0.0154	3.0000e-004	0.0157	4.1200e-003	2.8000e-004	4.4000e-003	0.0000	15.7703	15.7703	5.5000e-004	0.0000	15.7819
Total	**4.7300e-003**	**0.0180**	**0.0660**	**2.2000e-004**	**0.0154**	**3.0000e-004**	**0.0157**	**4.1200e-003**	**2.8000e-004**	**4.4000e-003**	**0.0000**	**15.7703**	**15.7703**	**5.5000e-004**	**0.0000**	**15.7819**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Westside Pump Station Alternative 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	180.00
tblOffRoadEquipment	OffRoadEquipmentType		Bore/Drill Rigs
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6087	5.3404	4.7263	9.4900e-003	0.0778	0.2923	0.3701	0.0132	0.2864	0.2997	0.0000	821.4964	821.4964	0.1217	0.0000	824.0527
Total	**0.6087**	**5.3404**	**4.7263**	**9.4900e-003**	**0.0778**	**0.2923**	**0.3701**	**0.0132**	**0.2864**	**0.2997**	**0.0000**	**821.4964**	**821.4964**	**0.1217**	**0.0000**	**824.0527**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	0.6087	5.3404	4.7263	9.4900e-003	0.0778	0.2923	0.3701	0.0132	0.2864	0.2997	0.0000	821.4954	821.4954	0.1217	0.0000	824.0518
Total	**0.6087**	**5.3404**	**4.7263**	**9.4900e-003**	**0.0778**	**0.2923**	**0.3701**	**0.0132**	**0.2864**	**0.2997**	**0.0000**	**821.4954**	**821.4954**	**0.1217**	**0.0000**	**824.0518**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	11/12/2019	5	180	

Acres of Grading (Site Preparation Phase): 90

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Cranes	1	6.00	226	0.29
Site Preparation	Excavators	1	6.00	162	0.38
Site Preparation	Generator Sets	1	6.00	84	0.74
Site Preparation	Off-Highway Trucks	1	6.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Pumps	3	24.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	12	30.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0477	0.0000	0.0477	5.1500e-003	0.0000	5.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5989	5.3016	4.5893	9.0500e-003		0.2917	0.2917		0.2859	0.2859	0.0000	789.5640	789.5640	0.1206	0.0000	792.0964
Total	**0.5989**	**5.3016**	**4.5893**	**9.0500e-003**	**0.0477**	**0.2917**	**0.3394**	**5.1500e-003**	**0.2859**	**0.2910**	**0.0000**	**789.5640**	**789.5640**	**0.1206**	**0.0000**	**792.0964**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7400e-003	0.0388	0.1370	4.4000e-004	0.0301	6.0000e-004	0.0307	8.0600e-003	5.5000e-004	8.6200e-003	0.0000	31.9324	31.9324	1.1400e-003	0.0000	31.9563
Total	**9.7400e-003**	**0.0388**	**0.1370**	**4.4000e-004**	**0.0301**	**6.0000e-004**	**0.0307**	**8.0600e-003**	**5.5000e-004**	**8.6200e-003**	**0.0000**	**31.9324**	**31.9324**	**1.1400e-003**	**0.0000**	**31.9563**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					0.0477	0.0000	0.0477	5.1500e-003	0.0000	5.1500e-003	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	0.5989	5.3016	4.5893	9.0500e-003		0.2917	0.2917		0.2859	0.2859	0.0000	789.5630	789.5630	0.1206	0.0000	792.0954
Total	**0.5989**	**5.3016**	**4.5893**	**9.0500e-003**	**0.0477**	**0.2917**	**0.3394**	**5.1500e-003**	**0.2859**	**0.2910**	**0.0000**	**789.5630**	**789.5630**	**0.1206**	**0.0000**	**792.0954**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	9.7400e-003	0.0388	0.1370	4.4000e-004	0.0301	6.0000e-004	0.0307	8.0600e-003	5.5000e-004	8.6200e-003	0.0000	31.9324	31.9324	1.1400e-003	0.0000	31.9563
Total	**9.7400e-003**	**0.0388**	**0.1370**	**4.4000e-004**	**0.0301**	**6.0000e-004**	**0.0307**	**8.0600e-003**	**5.5000e-004**	**8.6200e-003**	**0.0000**	**31.9324**	**31.9324**	**1.1400e-003**	**0.0000**	**31.9563**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

APPENDIX B-2

BUILD ALTERNATIVES 1 & 2
LOCAL SIGNIFICANCE THRESHOLD ANALYSIS

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LOCAL SIGNIFICANCE THRESHOLDS:
ALTERNATIVES 1 & 2 CURED-IN-PLACE PIPE
FOR ALL PROJECT SEGMENTS
(EXCEPT WESTSIDE PUMP STATION)

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OCSD CIPP LST Alternatives 1 and 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT - revised to include vehicles

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00

tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	3.16	3.29
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	53.80	52.76
tblVehicleEF	HHD	528.22	527.95
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.93	3.62
tblVehicleEF	HHD	4.30	3.74
tblVehicleEF	HHD	3.53	3.46
tblVehicleEF	HHD	9.7330e-003	9.4770e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	8.9550e-003	8.7190e-003
tblVehicleEF	HHD	0.03	0.03

tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.56	0.58
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.42	1.31
tblVehicleEF	HHD	5.5990e-003	5.5970e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4410e-003	1.4160e-003
tblVehicleEF	HHD	1.4370e-003	1.3920e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.64	0.67
tblVehicleEF	HHD	1.0510e-003	1.0270e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.27
tblVehicleEF	HHD	1.52	1.40
tblVehicleEF	HHD	0.02	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	2.30	2.39
tblVehicleEF	HHD	1.70	1.71
tblVehicleEF	HHD	43.34	42.41
tblVehicleEF	HHD	559.60	559.32
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32

tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	4.06	3.74
tblVehicleEF	HHD	4.07	3.53
tblVehicleEF	HHD	3.38	3.32
tblVehicleEF	HHD	8.2050e-003	7.9890e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	7.5490e-003	7.3500e-003
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.53	0.55
tblVehicleEF	HHD	1.6920e-003	1.6360e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.24	1.14
tblVehicleEF	HHD	5.9320e-003	5.9290e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.2710e-003	1.2490e-003
tblVehicleEF	HHD	2.3200e-003	2.2410e-003
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.60	0.63
tblVehicleEF	HHD	1.6920e-003	1.6360e-003

tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.28	0.26
tblVehicleEF	HHD	1.32	1.22
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	4.35	4.54
tblVehicleEF	HHD	1.69	1.70
tblVehicleEF	HHD	54.58	53.53
tblVehicleEF	HHD	484.88	484.63
tblVehicleEF	HHD	1,526.33	1,525.81
tblVehicleEF	HHD	49.77	49.32
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	3.76	3.46
tblVehicleEF	HHD	4.23	3.68
tblVehicleEF	HHD	3.54	3.47
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.06	0.06
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	0.09	0.09
tblVehicleEF	HHD	9.6100e-004	7.5600e-004
tblVehicleEF	HHD	0.01	0.01
tblVehicleEF	HHD	0.03	0.03
tblVehicleEF	HHD	8.7070e-003	8.7110e-003
tblVehicleEF	HHD	0.08	0.08
tblVehicleEF	HHD	8.6600e-004	7.0100e-004
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.61	0.63

tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.24	0.24
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.44	1.33
tblVehicleEF	HHD	5.1400e-003	5.1370e-003
tblVehicleEF	HHD	0.02	0.02
tblVehicleEF	HHD	1.4540e-003	1.4290e-003
tblVehicleEF	HHD	1.4620e-003	1.4010e-003
tblVehicleEF	HHD	0.07	0.06
tblVehicleEF	HHD	0.69	0.72
tblVehicleEF	HHD	1.0540e-003	1.0250e-003
tblVehicleEF	HHD	0.27	0.28
tblVehicleEF	HHD	0.30	0.29
tblVehicleEF	HHD	1.54	1.42
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.77	0.74
tblVehicleEF	LDA	1.39	1.29
tblVehicleEF	LDA	248.70	244.10
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04

tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5970e-003	3.6040e-003
tblVehicleEF	LDA	7.6100e-004	7.6000e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.22	0.21
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.86	0.82
tblVehicleEF	LDA	1.09	1.01
tblVehicleEF	LDA	261.62	256.81
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.06	0.06
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09

tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.02	0.02
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.08	0.07
tblVehicleEF	LDA	3.7860e-003	3.7940e-003
tblVehicleEF	LDA	7.5600e-004	7.5500e-004
tblVehicleEF	LDA	0.07	0.06
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	0.06	0.05
tblVehicleEF	LDA	0.03	0.03
tblVehicleEF	LDA	0.21	0.20
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	9.9890e-003	9.7120e-003
tblVehicleEF	LDA	5.4230e-003	4.9730e-003
tblVehicleEF	LDA	0.74	0.71
tblVehicleEF	LDA	1.44	1.34
tblVehicleEF	LDA	244.71	240.18
tblVehicleEF	LDA	52.85	51.70
tblVehicleEF	LDA	0.51	0.51
tblVehicleEF	LDA	0.07	0.07
tblVehicleEF	LDA	0.09	0.08
tblVehicleEF	LDA	1.9290e-003	1.9720e-003
tblVehicleEF	LDA	3.3710e-003	3.5640e-003
tblVehicleEF	LDA	1.7890e-003	1.8280e-003
tblVehicleEF	LDA	3.1270e-003	3.3060e-003
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03

tblVehicleEF	LDA	0.02	0.01
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.09
tblVehicleEF	LDA	3.5380e-003	3.5460e-003
tblVehicleEF	LDA	7.6200e-004	7.6100e-004
tblVehicleEF	LDA	0.04	0.04
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDA	0.04	0.03
tblVehicleEF	LDA	0.03	0.02
tblVehicleEF	LDA	0.25	0.24
tblVehicleEF	LDA	0.10	0.10
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.04	1.90
tblVehicleEF	LDT1	3.76	3.46
tblVehicleEF	LDT1	303.54	299.16
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.05	0.04

tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.28	0.26
tblVehicleEF	LDT1	4.1550e-003	4.1650e-003
tblVehicleEF	LDT1	9.1300e-004	9.0900e-004
tblVehicleEF	LDT1	0.15	0.15
tblVehicleEF	LDT1	0.28	0.27
tblVehicleEF	LDT1	0.12	0.12
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	0.93	0.89
tblVehicleEF	LDT1	0.30	0.27
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	2.24	2.09
tblVehicleEF	LDT1	2.96	2.73
tblVehicleEF	LDT1	318.77	314.25
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.18	0.17
tblVehicleEF	LDT1	0.20	0.19
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.05	0.05
tblVehicleEF	LDT1	0.87	0.83

tblVehicleEF	LDT1	0.24	0.22
tblVehicleEF	LDT1	4.3690e-003	4.3800e-003
tblVehicleEF	LDT1	8.9900e-004	8.9600e-004
tblVehicleEF	LDT1	0.25	0.24
tblVehicleEF	LDT1	0.30	0.29
tblVehicleEF	LDT1	0.18	0.18
tblVehicleEF	LDT1	0.07	0.07
tblVehicleEF	LDT1	0.87	0.83
tblVehicleEF	LDT1	0.25	0.23
tblVehicleEF	LDT1	0.02	0.02
tblVehicleEF	LDT1	0.02	0.01
tblVehicleEF	LDT1	1.98	1.84
tblVehicleEF	LDT1	3.88	3.57
tblVehicleEF	LDT1	299.01	294.68
tblVehicleEF	LDT1	63.81	62.79
tblVehicleEF	LDT1	0.06	0.06
tblVehicleEF	LDT1	0.20	0.18
tblVehicleEF	LDT1	0.22	0.20
tblVehicleEF	LDT1	3.6910e-003	3.5520e-003
tblVehicleEF	LDT1	4.7310e-003	4.7030e-003
tblVehicleEF	LDT1	3.4220e-003	3.2940e-003
tblVehicleEF	LDT1	4.3880e-003	4.3620e-003
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.05	0.04
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.28	0.26

tblVehicleEF	LDT1	4.0920e-003	4.1010e-003
tblVehicleEF	LDT1	9.1500e-004	9.1100e-004
tblVehicleEF	LDT1	0.16	0.15
tblVehicleEF	LDT1	0.31	0.30
tblVehicleEF	LDT1	0.12	0.11
tblVehicleEF	LDT1	0.07	0.06
tblVehicleEF	LDT1	1.10	1.05
tblVehicleEF	LDT1	0.30	0.28
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.07	1.01
tblVehicleEF	LDT2	2.03	1.86
tblVehicleEF	LDT2	369.06	364.55
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8850e-003	4.8940e-003

tblVehicleEF	LDT2	1.0390e-003	1.0370e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.13	0.13
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.04	0.03
tblVehicleEF	LDT2	0.41	0.40
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.19	1.12
tblVehicleEF	LDT2	1.59	1.46
tblVehicleEF	LDT2	387.88	383.18
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.10	0.10
tblVehicleEF	LDT2	0.16	0.15
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.12	0.11
tblVehicleEF	LDT2	5.1360e-003	5.1460e-003
tblVehicleEF	LDT2	1.0320e-003	1.0300e-003

tblVehicleEF	LDT2	0.10	0.09
tblVehicleEF	LDT2	0.14	0.14
tblVehicleEF	LDT2	0.09	0.09
tblVehicleEF	LDT2	0.04	0.04
tblVehicleEF	LDT2	0.39	0.38
tblVehicleEF	LDT2	0.13	0.12
tblVehicleEF	LDT2	0.01	0.01
tblVehicleEF	LDT2	7.9630e-003	7.2310e-003
tblVehicleEF	LDT2	1.03	0.97
tblVehicleEF	LDT2	2.10	1.92
tblVehicleEF	LDT2	363.32	358.87
tblVehicleEF	LDT2	77.44	76.32
tblVehicleEF	LDT2	0.18	0.18
tblVehicleEF	LDT2	0.11	0.11
tblVehicleEF	LDT2	0.18	0.16
tblVehicleEF	LDT2	1.9220e-003	1.9550e-003
tblVehicleEF	LDT2	3.3600e-003	3.5400e-003
tblVehicleEF	LDT2	1.7830e-003	1.8130e-003
tblVehicleEF	LDT2	3.1160e-003	3.2840e-003
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.02	0.02
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.14	0.13
tblVehicleEF	LDT2	4.8080e-003	4.8170e-003
tblVehicleEF	LDT2	1.0410e-003	1.0380e-003
tblVehicleEF	LDT2	0.06	0.06

tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LDT2	0.06	0.06
tblVehicleEF	LDT2	0.03	0.03
tblVehicleEF	LDT2	0.48	0.46
tblVehicleEF	LDT2	0.15	0.14
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.99	0.89
tblVehicleEF	LHD1	4.05	3.86
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.97	0.90
tblVehicleEF	LHD1	1.31	1.27
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07

tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.37	0.34
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3700e-004	5.3400e-004
tblVehicleEF	LHD1	2.6010e-003	2.5280e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6220e-003	1.6030e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.41	0.41
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	1.00	0.91
tblVehicleEF	LHD1	3.28	3.12
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
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tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.90	0.83
tblVehicleEF	LHD1	1.26	1.22
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004

tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.32	0.30
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
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tblVehicleEF	LHD1	4.0630e-003	3.9450e-003
tblVehicleEF	LHD1	0.08	0.07
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	2.5050e-003	2.4640e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.40	0.40
tblVehicleEF	LHD1	0.35	0.32
tblVehicleEF	LHD1	1.2790e-003	1.2660e-003
tblVehicleEF	LHD1	0.01	0.01
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	0.19	0.18
tblVehicleEF	LHD1	0.98	0.89

tblVehicleEF	LHD1	4.09	3.89
tblVehicleEF	LHD1	7.69	7.69
tblVehicleEF	LHD1	527.90	529.19
tblVehicleEF	LHD1	41.65	41.72
tblVehicleEF	LHD1	0.04	0.04
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	0.95	0.88
tblVehicleEF	LHD1	1.31	1.28
tblVehicleEF	LHD1	4.7400e-004	4.7300e-004
tblVehicleEF	LHD1	0.05	0.05
tblVehicleEF	LHD1	6.6120e-003	6.3310e-003
tblVehicleEF	LHD1	9.0900e-004	8.2800e-004
tblVehicleEF	LHD1	4.3600e-004	4.3500e-004
tblVehicleEF	LHD1	0.02	0.02
tblVehicleEF	LHD1	6.0870e-003	5.8290e-003
tblVehicleEF	LHD1	8.4100e-004	7.6800e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03
tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.07	0.07
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.37	0.35
tblVehicleEF	LHD1	5.8160e-003	5.8290e-003
tblVehicleEF	LHD1	5.3800e-004	5.3500e-004
tblVehicleEF	LHD1	2.7470e-003	2.6470e-003
tblVehicleEF	LHD1	0.08	0.08
tblVehicleEF	LHD1	0.03	0.03

tblVehicleEF	LHD1	1.6340e-003	1.6100e-003
tblVehicleEF	LHD1	0.09	0.08
tblVehicleEF	LHD1	0.45	0.44
tblVehicleEF	LHD1	0.39	0.37
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.35	2.23
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.53	1.41
tblVehicleEF	LHD2	0.86	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04

tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.22	0.20
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tblVehicleEF	LHD2	3.6000e-004	3.5800e-004
tblVehicleEF	LHD2	1.4640e-003	1.3940e-003
tblVehicleEF	LHD2	0.04	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.5400e-004	9.3200e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.24	0.23
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15
tblVehicleEF	LHD2	0.66	0.60
tblVehicleEF	LHD2	1.91	1.81
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.44	1.33
tblVehicleEF	LHD2	0.83	0.80
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003

tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
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tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.19	0.18
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.5300e-004	3.5100e-004
tblVehicleEF	LHD2	2.2620e-003	2.1540e-003
tblVehicleEF	LHD2	0.05	0.04
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	1.4470e-003	1.4050e-003
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.23	0.22
tblVehicleEF	LHD2	0.21	0.19
tblVehicleEF	LHD2	1.0040e-003	9.9500e-004
tblVehicleEF	LHD2	7.6960e-003	7.1450e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	0.15	0.15

tblVehicleEF	LHD2	0.65	0.60
tblVehicleEF	LHD2	2.38	2.25
tblVehicleEF	LHD2	8.47	8.47
tblVehicleEF	LHD2	509.73	510.43
tblVehicleEF	LHD2	28.53	28.59
tblVehicleEF	LHD2	6.6920e-003	6.7490e-003
tblVehicleEF	LHD2	0.10	0.10
tblVehicleEF	LHD2	1.51	1.39
tblVehicleEF	LHD2	0.87	0.84
tblVehicleEF	LHD2	1.0380e-003	1.0340e-003
tblVehicleEF	LHD2	0.06	0.06
tblVehicleEF	LHD2	9.9660e-003	9.9650e-003
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.7500e-004	4.2300e-004
tblVehicleEF	LHD2	9.5500e-004	9.5100e-004
tblVehicleEF	LHD2	0.03	0.03
tblVehicleEF	LHD2	0.01	0.01
tblVehicleEF	LHD2	4.4000e-004	3.9300e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003
tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.07	0.06
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.22	0.20
tblVehicleEF	LHD2	5.5480e-003	5.5550e-003
tblVehicleEF	LHD2	3.6100e-004	3.5900e-004
tblVehicleEF	LHD2	1.5100e-003	1.4220e-003

tblVehicleEF	LHD2	0.05	0.05
tblVehicleEF	LHD2	0.02	0.02
tblVehicleEF	LHD2	9.4600e-004	9.2100e-004
tblVehicleEF	LHD2	0.08	0.08
tblVehicleEF	LHD2	0.26	0.25
tblVehicleEF	LHD2	0.24	0.22
tblVehicleEF	MCY	20.47	20.19
tblVehicleEF	MCY	10.01	10.04
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.16	1.16
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.06	2.05
tblVehicleEF	MCY	1.9650e-003	1.9680e-003
tblVehicleEF	MCY	6.5000e-004	6.4600e-004
tblVehicleEF	MCY	0.97	0.97
tblVehicleEF	MCY	0.41	0.41
tblVehicleEF	MCY	0.55	0.55

tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.24	1.21
tblVehicleEF	MCY	2.21	2.20
tblVehicleEF	MCY	19.82	19.56
tblVehicleEF	MCY	8.80	8.81
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.01	1.01
tblVehicleEF	MCY	0.29	0.29
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.32	2.31
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.81	1.81
tblVehicleEF	MCY	1.9530e-003	1.9570e-003
tblVehicleEF	MCY	6.2300e-004	6.1900e-004
tblVehicleEF	MCY	1.65	1.66
tblVehicleEF	MCY	0.51	0.50
tblVehicleEF	MCY	1.05	1.04
tblVehicleEF	MCY	2.55	2.55
tblVehicleEF	MCY	1.16	1.13
tblVehicleEF	MCY	1.95	1.94

tblVehicleEF	MCY	20.37	20.09
tblVehicleEF	MCY	10.06	10.09
tblVehicleEF	MCY	141.21	141.94
tblVehicleEF	MCY	38.50	38.14
tblVehicleEF	MCY	4.3920e-003	4.3450e-003
tblVehicleEF	MCY	1.13	1.12
tblVehicleEF	MCY	0.31	0.31
tblVehicleEF	MCY	3.1300e-004	2.9300e-004
tblVehicleEF	MCY	9.6300e-004	8.9000e-004
tblVehicleEF	MCY	2.6300e-004	2.4700e-004
tblVehicleEF	MCY	8.0000e-004	7.4600e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.38	2.37
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.08	2.07
tblVehicleEF	MCY	1.9640e-003	1.9670e-003
tblVehicleEF	MCY	6.5100e-004	6.4700e-004
tblVehicleEF	MCY	1.09	1.09
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	0.54	0.54
tblVehicleEF	MCY	2.61	2.60
tblVehicleEF	MCY	1.48	1.45
tblVehicleEF	MCY	2.23	2.22
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.77	1.65

tblVehicleEF	MDV	3.76	3.50
tblVehicleEF	MDV	488.74	483.58
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.22	0.20
tblVehicleEF	MDV	0.35	0.32
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.32	0.29
tblVehicleEF	MDV	6.2060e-003	6.2210e-003
tblVehicleEF	MDV	1.3410e-003	1.3380e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.20	0.20
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.60	0.59
tblVehicleEF	MDV	0.34	0.31
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.96	1.82
tblVehicleEF	MDV	2.96	2.75

tblVehicleEF	MDV	514.22	508.88
tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.19	0.18
tblVehicleEF	MDV	0.33	0.30
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.05	0.04
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.27	0.25
tblVehicleEF	MDV	6.5340e-003	6.5510e-003
tblVehicleEF	MDV	1.3270e-003	1.3250e-003
tblVehicleEF	MDV	0.15	0.14
tblVehicleEF	MDV	0.21	0.21
tblVehicleEF	MDV	0.13	0.13
tblVehicleEF	MDV	0.07	0.07
tblVehicleEF	MDV	0.57	0.56
tblVehicleEF	MDV	0.29	0.26
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	0.02	0.02
tblVehicleEF	MDV	1.72	1.59
tblVehicleEF	MDV	3.88	3.61
tblVehicleEF	MDV	481.25	476.17

tblVehicleEF	MDV	102.89	101.68
tblVehicleEF	MDV	0.14	0.14
tblVehicleEF	MDV	0.21	0.19
tblVehicleEF	MDV	0.35	0.33
tblVehicleEF	MDV	2.1710e-003	2.1650e-003
tblVehicleEF	MDV	3.5260e-003	3.6150e-003
tblVehicleEF	MDV	2.0090e-003	2.0050e-003
tblVehicleEF	MDV	3.2650e-003	3.3500e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.04	0.04
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.32	0.30
tblVehicleEF	MDV	6.1100e-003	6.1250e-003
tblVehicleEF	MDV	1.3430e-003	1.3400e-003
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.22	0.22
tblVehicleEF	MDV	0.09	0.09
tblVehicleEF	MDV	0.07	0.06
tblVehicleEF	MDV	0.70	0.69
tblVehicleEF	MDV	0.34	0.32
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.03	5.60
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.24	1.15

tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1500e-004	4.0600e-004
tblVehicleEF	MH	0.93	0.85
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.39	0.36
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.58	1.44
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MH	1.62	1.28
tblVehicleEF	MH	4.80	4.47
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
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tblVehicleEF	MH	0.65	0.62

tblVehicleEF	MH	0.05	0.05
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.29	0.27
tblVehicleEF	MH	6.6210e-003	6.6360e-003
tblVehicleEF	MH	3.9500e-004	3.8700e-004
tblVehicleEF	MH	1.43	1.31
tblVehicleEF	MH	0.06	0.06
tblVehicleEF	MH	0.61	0.56
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.55	1.42
tblVehicleEF	MH	0.31	0.29
tblVehicleEF	MH	1.58	1.24
tblVehicleEF	MH	6.06	5.63
tblVehicleEF	MH	601.02	602.86
tblVehicleEF	MH	27.96	27.85
tblVehicleEF	MH	2.1400e-003	2.2060e-003
tblVehicleEF	MH	1.21	1.13
tblVehicleEF	MH	0.68	0.65
tblVehicleEF	MH	0.05	0.05

tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	6.4800e-004	5.3500e-004
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	0.02	0.02
tblVehicleEF	MH	5.9500e-004	4.9600e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.06	0.05
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.34	0.31
tblVehicleEF	MH	6.6210e-003	6.6350e-003
tblVehicleEF	MH	4.1600e-004	4.0700e-004
tblVehicleEF	MH	1.06	0.95
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	0.40	0.37
tblVehicleEF	MH	0.08	0.07
tblVehicleEF	MH	1.67	1.53
tblVehicleEF	MH	0.36	0.33
tblVehicleEF	MHD	7.4570e-003	7.8620e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.89	1.99
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.46	13.47
tblVehicleEF	MHD	572.02	572.41
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02

tblVehicleEF	MHD	4.69	3.80
tblVehicleEF	MHD	1.64	1.20
tblVehicleEF	MHD	1.63	1.53
tblVehicleEF	MHD	0.01	8.1320e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	7.4820e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.16	0.17
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.86	0.79
tblVehicleEF	MHD	6.0640e-003	6.0680e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.0400e-004	7.8400e-004
tblVehicleEF	MHD	2.3710e-003	2.2490e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.18	0.19
tblVehicleEF	MHD	1.5040e-003	1.4540e-003
tblVehicleEF	MHD	0.11	0.10

tblVehicleEF	MHD	0.42	0.41
tblVehicleEF	MHD	0.92	0.85
tblVehicleEF	MHD	7.0270e-003	7.4100e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	1.37	1.45
tblVehicleEF	MHD	0.69	0.61
tblVehicleEF	MHD	11.66	10.85
tblVehicleEF	MHD	606.00	606.42
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.84	3.92
tblVehicleEF	MHD	1.54	1.12
tblVehicleEF	MHD	1.56	1.47
tblVehicleEF	MHD	9.3480e-003	6.8560e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	8.6000e-003	6.3070e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.15	0.16
tblVehicleEF	MHD	2.2930e-003	2.1990e-003

tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.76	0.70
tblVehicleEF	MHD	6.4240e-003	6.4280e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	7.5700e-004	7.3900e-004
tblVehicleEF	MHD	3.6620e-003	3.4650e-003
tblVehicleEF	MHD	0.09	0.08
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	2.2930e-003	2.1990e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.41	0.40
tblVehicleEF	MHD	0.81	0.75
tblVehicleEF	MHD	8.0500e-003	8.4880e-003
tblVehicleEF	MHD	3.5470e-003	3.3100e-003
tblVehicleEF	MHD	2.60	2.75
tblVehicleEF	MHD	0.68	0.60
tblVehicleEF	MHD	14.80	13.79
tblVehicleEF	MHD	525.09	525.45
tblVehicleEF	MHD	914.66	914.16
tblVehicleEF	MHD	49.61	49.32
tblVehicleEF	MHD	0.02	0.02
tblVehicleEF	MHD	4.48	3.63
tblVehicleEF	MHD	1.61	1.17
tblVehicleEF	MHD	1.64	1.54
tblVehicleEF	MHD	0.01	9.8950e-003
tblVehicleEF	MHD	0.11	0.11
tblVehicleEF	MHD	0.01	0.01

tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.4000e-003	1.2020e-003
tblVehicleEF	MHD	0.01	9.1040e-003
tblVehicleEF	MHD	0.05	0.05
tblVehicleEF	MHD	2.8150e-003	2.8140e-003
tblVehicleEF	MHD	0.04	0.03
tblVehicleEF	MHD	1.2830e-003	1.1150e-003
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.17	0.18
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.09	0.09
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.88	0.81
tblVehicleEF	MHD	5.5660e-003	5.5700e-003
tblVehicleEF	MHD	9.7510e-003	9.7450e-003
tblVehicleEF	MHD	8.1000e-004	7.8900e-004
tblVehicleEF	MHD	2.5280e-003	2.3740e-003
tblVehicleEF	MHD	0.10	0.09
tblVehicleEF	MHD	0.20	0.21
tblVehicleEF	MHD	1.5250e-003	1.4670e-003
tblVehicleEF	MHD	0.11	0.10
tblVehicleEF	MHD	0.46	0.45
tblVehicleEF	MHD	0.94	0.86
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	2.74	3.04
tblVehicleEF	OBUS	0.97	0.91

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tblVehicleEF	OBUS	534.88	534.43
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.65	3.88
tblVehicleEF	OBUS	2.29	1.64
tblVehicleEF	OBUS	1.25	1.19
tblVehicleEF	OBUS	9.5470e-003	9.0830e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	8.7830e-003	8.3560e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.47	0.52
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.54	0.51
tblVehicleEF	OBUS	5.6700e-003	5.6650e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.1900e-004	5.1100e-004

tblVehicleEF	OBUS	9.6800e-004	9.6000e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.53	0.59
tblVehicleEF	OBUS	5.3200e-004	5.3400e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.33	0.33
tblVehicleEF	OBUS	0.58	0.54
tblVehicleEF	OBUS	0.02	0.02
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
tblVehicleEF	OBUS	1.99	2.21
tblVehicleEF	OBUS	0.98	0.92
tblVehicleEF	OBUS	7.13	6.78
tblVehicleEF	OBUS	566.66	566.19
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
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tblVehicleEF	OBUS	2.15	1.54
tblVehicleEF	OBUS	1.20	1.14
tblVehicleEF	OBUS	8.0480e-003	7.6570e-003
tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	7.4040e-003	7.0440e-003
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
tblVehicleEF	OBUS	0.04	0.04

tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
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tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	4.9100e-004	4.8400e-004
tblVehicleEF	OBUS	1.4480e-003	1.4350e-003
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tblVehicleEF	OBUS	0.50	0.55
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tblVehicleEF	OBUS	0.02	0.03
tblVehicleEF	OBUS	2.8030e-003	2.8850e-003
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tblVehicleEF	OBUS	491.00	490.59
tblVehicleEF	OBUS	1,017.85	1,019.05
tblVehicleEF	OBUS	32.78	32.73
tblVehicleEF	OBUS	1.9430e-003	1.9550e-003
tblVehicleEF	OBUS	4.44	3.71

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tblVehicleEF	OBUS	0.10	0.10
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	5.8000e-004	5.3200e-004
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	0.04	0.04
tblVehicleEF	OBUS	2.6470e-003	2.6500e-003
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tblVehicleEF	OBUS	5.3500e-004	4.9400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
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tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.12	0.12
tblVehicleEF	OBUS	0.35	0.35
tblVehicleEF	OBUS	0.55	0.52
tblVehicleEF	OBUS	5.2050e-003	5.2000e-003
tblVehicleEF	OBUS	0.01	0.01
tblVehicleEF	OBUS	5.2200e-004	5.1400e-004
tblVehicleEF	OBUS	9.8800e-004	9.7200e-004
tblVehicleEF	OBUS	0.03	0.03
tblVehicleEF	OBUS	0.57	0.63
tblVehicleEF	OBUS	5.2500e-004	5.2600e-004
tblVehicleEF	OBUS	0.14	0.14
tblVehicleEF	OBUS	0.35	0.35

tblVehicleEF	OBUS	0.59	0.55
tblVehicleEF	SBUS	4.4530e-003	4.5470e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.05	1.09
tblVehicleEF	SBUS	2.96	2.81
tblVehicleEF	SBUS	27.16	26.08
tblVehicleEF	SBUS	547.00	550.57
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.58	7.45
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tblVehicleEF	SBUS	0.57	0.56
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tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
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tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.10	0.10
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.30	0.29

tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.66	1.58
tblVehicleEF	SBUS	5.7980e-003	5.8360e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7600e-003	1.7380e-003
tblVehicleEF	SBUS	0.03	0.03
tblVehicleEF	SBUS	0.21	0.20
tblVehicleEF	SBUS	0.11	0.11
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	1.95	1.94
tblVehicleEF	SBUS	1.77	1.68
tblVehicleEF	SBUS	4.1970e-003	4.2850e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	0.76	0.79
tblVehicleEF	SBUS	3.03	2.88
tblVehicleEF	SBUS	23.01	22.08
tblVehicleEF	SBUS	579.49	583.28
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.82	7.69
tblVehicleEF	SBUS	6.62	6.40
tblVehicleEF	SBUS	1.91	1.85
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04

tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.01	9.7360e-003
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.09	0.09
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.30	0.29
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.49	1.41
tblVehicleEF	SBUS	6.1430e-003	6.1830e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.6900e-003	1.6700e-003
tblVehicleEF	SBUS	0.05	0.05
tblVehicleEF	SBUS	0.21	0.21
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.34	0.33
tblVehicleEF	SBUS	1.79	1.79
tblVehicleEF	SBUS	1.59	1.51
tblVehicleEF	SBUS	4.8080e-003	4.9080e-003
tblVehicleEF	SBUS	5.5860e-003	5.6630e-003
tblVehicleEF	SBUS	1.45	1.50
tblVehicleEF	SBUS	2.94	2.79
tblVehicleEF	SBUS	27.94	26.83

tblVehicleEF	SBUS	502.12	505.40
tblVehicleEF	SBUS	1,037.25	1,034.50
tblVehicleEF	SBUS	115.53	115.30
tblVehicleEF	SBUS	5.7600e-004	5.7300e-004
tblVehicleEF	SBUS	7.24	7.12
tblVehicleEF	SBUS	6.92	6.69
tblVehicleEF	SBUS	2.04	1.98
tblVehicleEF	SBUS	0.02	0.02
tblVehicleEF	SBUS	0.57	0.56
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	0.05	0.04
tblVehicleEF	SBUS	3.6960e-003	3.4290e-003
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.24	0.24
tblVehicleEF	SBUS	2.7470e-003	2.7440e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	3.4060e-003	3.1810e-003
tblVehicleEF	SBUS	0.04	0.04
tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.10	0.11
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.29	0.29
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.69	1.61
tblVehicleEF	SBUS	5.3230e-003	5.3580e-003
tblVehicleEF	SBUS	0.01	0.01
tblVehicleEF	SBUS	1.7730e-003	1.7510e-003
tblVehicleEF	SBUS	0.04	0.04

tblVehicleEF	SBUS	0.25	0.24
tblVehicleEF	SBUS	0.12	0.12
tblVehicleEF	SBUS	0.02	0.01
tblVehicleEF	SBUS	0.33	0.32
tblVehicleEF	SBUS	2.30	2.29
tblVehicleEF	SBUS	1.81	1.72
tblVehicleEF	UBUS	4.38	4.28
tblVehicleEF	UBUS	9.86	9.69
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.91	10.64
tblVehicleEF	UBUS	1.17	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003
tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.72	0.71
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8100e-004	4.7800e-004
tblVehicleEF	UBUS	5.4570e-003	5.4090e-003

tblVehicleEF	UBUS	0.09	0.09
tblVehicleEF	UBUS	3.0100e-003	2.9830e-003
tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.78	0.80
tblVehicleEF	UBUS	0.78	0.77
tblVehicleEF	UBUS	4.44	4.34
tblVehicleEF	UBUS	8.28	8.13
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.28	10.02
tblVehicleEF	UBUS	1.12	1.11
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10
tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.65	0.64
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.5400e-004	4.5100e-004
tblVehicleEF	UBUS	8.0610e-003	7.9820e-003
tblVehicleEF	UBUS	0.10	0.10

tblVehicleEF	UBUS	4.5490e-003	4.4940e-003
tblVehicleEF	UBUS	0.81	0.80
tblVehicleEF	UBUS	0.73	0.75
tblVehicleEF	UBUS	0.70	0.69
tblVehicleEF	UBUS	4.37	4.27
tblVehicleEF	UBUS	9.99	9.82
tblVehicleEF	UBUS	1,917.54	1,910.91
tblVehicleEF	UBUS	27.32	27.35
tblVehicleEF	UBUS	2.4910e-003	2.5020e-003
tblVehicleEF	UBUS	10.70	10.43
tblVehicleEF	UBUS	1.18	1.16
tblVehicleEF	UBUS	0.68	0.68
tblVehicleEF	UBUS	0.18	0.17
tblVehicleEF	UBUS	6.0900e-004	5.9600e-004
tblVehicleEF	UBUS	0.29	0.29
tblVehicleEF	UBUS	0.16	0.16
tblVehicleEF	UBUS	5.6400e-004	5.5300e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003
tblVehicleEF	UBUS	0.72	0.70
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.73	0.72
tblVehicleEF	UBUS	0.02	0.02
tblVehicleEF	UBUS	4.8300e-004	4.8000e-004
tblVehicleEF	UBUS	6.2690e-003	6.2090e-003
tblVehicleEF	UBUS	0.12	0.11
tblVehicleEF	UBUS	3.2440e-003	3.2130e-003

tblVehicleEF	UBUS	0.80	0.78
tblVehicleEF	UBUS	0.92	0.94
tblVehicleEF	UBUS	0.78	0.77

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.8900e-003	0.0158	0.0145	3.0000e-005	4.0000e-004	8.8000e-004	1.2900e-003	7.0000e-005	8.7000e-004	9.4000e-004	0.0000	2.4979	2.4979	3.1000e-004	0.0000	2.5045
Total	**1.8900e-003**	**0.0158**	**0.0145**	**3.0000e-005**	**4.0000e-004**	**8.8000e-004**	**1.2900e-003**	**7.0000e-005**	**8.7000e-004**	**9.4000e-004**	**0.0000**	**2.4979**	**2.4979**	**3.1000e-004**	**0.0000**	**2.5045**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.8900e-003	0.0158	0.0145	3.0000e-005	4.0000e-004	8.8000e-004	1.2900e-003	7.0000e-005	8.7000e-004	9.4000e-004	0.0000	2.4979	2.4979	3.1000e-004	0.0000	2.5045
Total	**1.8900e-003**	**0.0158**	**0.0145**	**3.0000e-005**	**4.0000e-004**	**8.8000e-004**	**1.2900e-003**	**7.0000e-005**	**8.7000e-004**	**9.4000e-004**	**0.0000**	**2.4979**	**2.4979**	**3.1000e-004**	**0.0000**	**2.5045**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	3/6/2019	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	8.00	78	0.48
Site Preparation	Generator Sets	1	5.00	84	0.74
Site Preparation	Off-Highway Trucks	1	3.00	400	0.38
Site Preparation	Off-Highway Trucks	1	5.00	400	0.38
Site Preparation	Pumps	4	10.00	84	0.74

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	10	25.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8500e-003	0.0156	0.0138	3.0000e-005		8.8000e-004	8.8000e-004		8.7000e-004	8.7000e-004	0.0000	2.3501	2.3501	3.1000e-004	0.0000	2.3565
Total	**1.8500e-003**	**0.0156**	**0.0138**	**3.0000e-005**	**2.7000e-004**	**8.8000e-004**	**1.1500e-003**	**3.0000e-005**	**8.7000e-004**	**9.0000e-004**	**0.0000**	**2.3501**	**2.3501**	**3.1000e-004**	**0.0000**	**2.3565**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	1.8000e-004	6.3000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1478	0.1478	1.0000e-005	0.0000	0.1480
Total	**5.0000e-005**	**1.8000e-004**	**6.3000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1478**	**0.1478**	**1.0000e-005**	**0.0000**	**0.1480**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	1.8500e-003	0.0156	0.0138	3.0000e-005		8.8000e-004	8.8000e-004		8.7000e-004	8.7000e-004	0.0000	2.3501	2.3501	3.1000e-004	0.0000	2.3565
Total	**1.8500e-003**	**0.0156**	**0.0138**	**3.0000e-005**	**2.7000e-004**	**8.8000e-004**	**1.1500e-003**	**3.0000e-005**	**8.7000e-004**	**9.0000e-004**	**0.0000**	**2.3501**	**2.3501**	**3.1000e-004**	**0.0000**	**2.3565**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	1.8000e-004	6.3000e-004	0.0000	1.4000e-004	0.0000	1.4000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1478	0.1478	1.0000e-005	0.0000	0.1480
Total	**5.0000e-005**	**1.8000e-004**	**6.3000e-004**	**0.0000**	**1.4000e-004**	**0.0000**	**1.4000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1478**	**0.1478**	**1.0000e-005**	**0.0000**	**0.1480**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.507717	0.059700	0.181648	0.140055	0.042936	0.006749	0.016265	0.033349	0.001955	0.002502	0.004345	0.000573	0.002206

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LOCAL SIGNIFICANCE THRESHOLDS:
MANHOLE REHABILITATION/REPLACEMENT
FOR ALL PROJECT SEGMENTS
(EXCEPT WESTSIDE PUMP STATION)

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OCSD Manholes LST Alternatives 1 and 2

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	7.5000e-004	7.7000e-003	5.7500e-003	1.0000e-005	3.5000e-004	3.4000e-004	6.9000e-004	5.0000e-005	3.1000e-004	3.6000e-004	0.0000	1.1829	1.1829	3.5000e-004	0.0000	1.1902
Total	**7.5000e-004**	**7.7000e-003**	**5.7500e-003**	**1.0000e-005**	**3.5000e-004**	**3.4000e-004**	**6.9000e-004**	**5.0000e-005**	**3.1000e-004**	**3.6000e-004**	**0.0000**	**1.1829**	**1.1829**	**3.5000e-004**	**0.0000**	**1.1902**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	7.5000e-004	7.7000e-003	5.7500e-003	1.0000e-005	3.5000e-004	3.4000e-004	6.9000e-004	5.0000e-005	3.1000e-004	3.6000e-004	0.0000	1.1829	1.1829	3.5000e-004	0.0000	1.1902
Total	**7.5000e-004**	**7.7000e-003**	**5.7500e-003**	**1.0000e-005**	**3.5000e-004**	**3.4000e-004**	**6.9000e-004**	**5.0000e-005**	**3.1000e-004**	**3.6000e-004**	**0.0000**	**1.1829**	**1.1829**	**3.5000e-004**	**0.0000**	**1.1902**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	3/6/2019	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Cranes	1	4.00	226	0.29
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	6	15.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3000e-004	7.5900e-003	5.3700e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.1000e-004	3.1000e-004	0.0000	1.0942	1.0942	3.5000e-004	0.0000	1.1015
Total	**7.3000e-004**	**7.5900e-003**	**5.3700e-003**	**1.0000e-005**	**2.7000e-004**	**3.4000e-004**	**6.1000e-004**	**3.0000e-005**	**3.1000e-004**	**3.4000e-004**	**0.0000**	**1.0942**	**1.0942**	**3.5000e-004**	**0.0000**	**1.1015**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.1000e-004	3.8000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0887	0.0887	0.0000	0.0000	0.0888
Total	**3.0000e-005**	**1.1000e-004**	**3.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0887**	**0.0887**	**0.0000**	**0.0000**	**0.0888**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	7.3000e-004	7.5900e-003	5.3700e-003	1.0000e-005		3.4000e-004	3.4000e-004		3.1000e-004	3.1000e-004	0.0000	1.0942	1.0942	3.5000e-004	0.0000	1.1015
Total	**7.3000e-004**	**7.5900e-003**	**5.3700e-003**	**1.0000e-005**	**2.7000e-004**	**3.4000e-004**	**6.1000e-004**	**3.0000e-005**	**3.1000e-004**	**3.4000e-004**	**0.0000**	**1.0942**	**1.0942**	**3.5000e-004**	**0.0000**	**1.1015**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	1.1000e-004	3.8000e-004	0.0000	8.0000e-005	0.0000	9.0000e-005	2.0000e-005	0.0000	2.0000e-005	0.0000	0.0887	0.0887	0.0000	0.0000	0.0888
Total	**3.0000e-005**	**1.1000e-004**	**3.8000e-004**	**0.0000**	**8.0000e-005**	**0.0000**	**9.0000e-005**	**2.0000e-005**	**0.0000**	**2.0000e-005**	**0.0000**	**0.0887**	**0.0887**	**0.0000**	**0.0000**	**0.0888**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LOCAL SIGNIFICANCE THRESHOLDS:
ALTERNATIVES 1 & 2 FOR
ALL WESTSIDE PUMP STATION
CONSTRUCTION ACTIVITIES

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OCSD Westside Pump Station Alternatives 1 and 2 LST

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised to include actual working days

Off-road Equipment - revised to include actual equipment and operations

Trips and VMT -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	2.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	3.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	UsageHours	8.00	6.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.4900e-003	0.0307	0.0276	5.0000e-005	4.5000e-004	1.6700e-003	2.1200e-003	8.0000e-005	1.6400e-003	1.7200e-003	0.0000	4.7599	4.7599	7.3000e-004	0.0000	4.7753
Total	**3.4900e-003**	**0.0307**	**0.0276**	**5.0000e-005**	**4.5000e-004**	**1.6700e-003**	**2.1200e-003**	**8.0000e-005**	**1.6400e-003**	**1.7200e-003**	**0.0000**	**4.7599**	**4.7599**	**7.3000e-004**	**0.0000**	**4.7753**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.4900e-003	0.0307	0.0276	5.0000e-005	4.5000e-004	1.6700e-003	2.1200e-003	8.0000e-005	1.6400e-003	1.7200e-003	0.0000	4.7599	4.7599	7.3000e-004	0.0000	4.7753
Total	**3.4900e-003**	**0.0307**	**0.0276**	**5.0000e-005**	**4.5000e-004**	**1.6700e-003**	**2.1200e-003**	**8.0000e-005**	**1.6400e-003**	**1.7200e-003**	**0.0000**	**4.7599**	**4.7599**	**7.3000e-004**	**0.0000**	**4.7753**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	3/6/2019	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Bore/Drill Rigs	1	6.00	205	0.50
Site Preparation	Cranes	1	6.00	226	0.29
Site Preparation	Excavators	2	6.00	162	0.38
Site Preparation	Generator Sets	1	6.00	84	0.74
Site Preparation	Off-Highway Trucks	1	6.00	400	0.38
Site Preparation	Off-Highway Trucks	1	4.00	400	0.38
Site Preparation	Pumps	3	24.00	84	0.74
Site Preparation	Tractors/Loaders/Backhoes	1	6.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	13	33.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4300e-003	0.0305	0.0268	5.0000e-005		1.6700e-003	1.6700e-003		1.6300e-003	1.6300e-003	0.0000	4.5648	4.5648	7.3000e-004	0.0000	4.5800
Total	**3.4300e-003**	**0.0305**	**0.0268**	**5.0000e-005**	**2.7000e-004**	**1.6700e-003**	**1.9400e-003**	**3.0000e-005**	**1.6300e-003**	**1.6600e-003**	**0.0000**	**4.5648**	**4.5648**	**7.3000e-004**	**0.0000**	**4.5800**

3.2 Site Preparation - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.4000e-004	8.4000e-004	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1951	0.1951	1.0000e-005	0.0000	0.1953
Total	**6.0000e-005**	**2.4000e-004**	**8.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1951**	**0.1951**	**1.0000e-005**	**0.0000**	**0.1953**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.7000e-004	0.0000	2.7000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	3.4300e-003	0.0305	0.0268	5.0000e-005		1.6700e-003	1.6700e-003		1.6300e-003	1.6300e-003	0.0000	4.5648	4.5648	7.3000e-004	0.0000	4.5800
Total	**3.4300e-003**	**0.0305**	**0.0268**	**5.0000e-005**	**2.7000e-004**	**1.6700e-003**	**1.9400e-003**	**3.0000e-005**	**1.6300e-003**	**1.6600e-003**	**0.0000**	**4.5648**	**4.5648**	**7.3000e-004**	**0.0000**	**4.5800**

3.2 Site Preparation - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	6.0000e-005	2.4000e-004	8.4000e-004	0.0000	1.8000e-004	0.0000	1.9000e-004	5.0000e-005	0.0000	5.0000e-005	0.0000	0.1951	0.1951	1.0000e-005	0.0000	0.1953
Total	**6.0000e-005**	**2.4000e-004**	**8.4000e-004**	**0.0000**	**1.8000e-004**	**0.0000**	**1.9000e-004**	**5.0000e-005**	**0.0000**	**5.0000e-005**	**0.0000**	**0.1951**	**0.1951**	**1.0000e-005**	**0.0000**	**0.1953**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LOCAL SIGNIFICANCE THRESHOLDS:
ALTERNATIVE 1 GRADING, PAVING AND SITE PREPARATION FOR PIPE EXCAVATION FOR ALL PROJECT SEGMENTS (EXCEPT WESTSIDE PUMP STATION)

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OCSD Grading Paving LST Alternative 1

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised for actual phasing and working days

Off-road Equipment - revised for actual equipment and operations

Off-road Equipment - revised for actual equipment and operations

Trips and VMT - revised to include vehicles

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00
tblGrading	MaterialExported	0.00	210.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00

tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.4100e-003	0.0137	0.0117	2.0000e-005	6.4000e-004	6.8000e-004	1.3200e-003	2.8000e-004	6.3000e-004	9.1000e-004	0.0000	2.1007	2.1007	5.4000e-004	0.0000	2.1119
Total	**1.4100e-003**	**0.0137**	**0.0117**	**2.0000e-005**	**6.4000e-004**	**6.8000e-004**	**1.3200e-003**	**2.8000e-004**	**6.3000e-004**	**9.1000e-004**	**0.0000**	**2.1007**	**2.1007**	**5.4000e-004**	**0.0000**	**2.1119**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	1.4100e-003	0.0137	0.0117	2.0000e-005	6.4000e-004	6.8000e-004	1.3200e-003	2.8000e-004	6.3000e-004	9.1000e-004	0.0000	2.1007	2.1007	5.4000e-004	0.0000	2.1119
Total	**1.4100e-003**	**0.0137**	**0.0117**	**2.0000e-005**	**6.4000e-004**	**6.8000e-004**	**1.3200e-003**	**2.8000e-004**	**6.3000e-004**	**9.1000e-004**	**0.0000**	**2.1007**	**2.1007**	**5.4000e-004**	**0.0000**	**2.1119**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Grading	Grading	3/6/2019	3/6/2019	5	1	
2	Paving	Paving	3/7/2019	3/7/2019	5	1	

Acres of Grading (Site Preparation Phase): 0

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Grading	Cranes	1	6.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	4.00	400	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Off-Highway Trucks	1	5.00	400	0.38
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Grading	9	23.00		26.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix
Paving	9	23.00		0.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	9.3600e-003	7.4400e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	1.2575	1.2575	3.2000e-004	0.0000	1.2643
Total	**9.3000e-004**	**9.3600e-003**	**7.4400e-003**	**1.0000e-005**	**3.9000e-004**	**4.8000e-004**	**8.7000e-004**	**2.1000e-004**	**4.5000e-004**	**6.6000e-004**	**0.0000**	**1.2575**	**1.2575**	**3.2000e-004**	**0.0000**	**1.2643**

3.2 Grading - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1053	0.1053	1.0000e-005	0.0000	0.1054
Total	**3.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1053**	**0.1053**	**1.0000e-005**	**0.0000**	**0.1054**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	9.3600e-003	7.4400e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	1.2575	1.2575	3.2000e-004	0.0000	1.2643
Total	**9.3000e-004**	**9.3600e-003**	**7.4400e-003**	**1.0000e-005**	**3.9000e-004**	**4.8000e-004**	**8.7000e-004**	**2.1000e-004**	**4.5000e-004**	**6.6000e-004**	**0.0000**	**1.2575**	**1.2575**	**3.2000e-004**	**0.0000**	**1.2643**

3.2 Grading - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1053	0.1053	1.0000e-005	0.0000	0.1054
Total	**3.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1053**	**0.1053**	**1.0000e-005**	**0.0000**	**0.1054**

3.3 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	4.2100e-003	3.2300e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.8000e-004	1.8000e-004	0.0000	0.6327	0.6327	2.0000e-004	0.0000	0.6369
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**4.2100e-003**	**3.2300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6327**	**0.6327**	**2.0000e-004**	**0.0000**	**0.6369**

3.3 Paving - 2019

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1053	0.1053	1.0000e-005	0.0000	0.1054
Total	**3.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1053**	**0.1053**	**1.0000e-005**	**0.0000**	**0.1054**

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	4.2100e-003	3.2300e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.8000e-004	1.8000e-004	0.0000	0.6327	0.6327	2.0000e-004	0.0000	0.6369
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**4.2100e-003**	**3.2300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6327**	**0.6327**	**2.0000e-004**	**0.0000**	**0.6369**

3.3 Paving - 2019

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	3.0000e-005	5.0000e-005	5.3000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.1053	0.1053	1.0000e-005	0.0000	0.1054
Total	**3.0000e-005**	**5.0000e-005**	**5.3000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**3.0000e-005**	**0.0000**	**0.1053**	**0.1053**	**1.0000e-005**	**0.0000**	**0.1054**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

OCSD Site Prep LST Alternative 1

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised for actual phasing and working days

Off-road Equipment - revised for actual equipment and operations

Trips and VMT -

Grading -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblGrading	MaterialExported	0.00	210.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		HDT_Mix
tblTripsAndVMT	VendorVehicleClass		HDT_Mix
tblTripsAndVMT	WorkerVehicleClass		LD_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	2.4100e-003	0.0227	0.0172	4.0000e-005	4.3000e-004	1.0400e-003	1.4700e-003	7.0000e-005	9.8000e-004	1.0500e-003	0.0000	3.6849	3.6849	9.6000e-004	0.0000	3.7051
Total	**2.4100e-003**	**0.0227**	**0.0172**	**4.0000e-005**	**4.3000e-004**	**1.0400e-003**	**1.4700e-003**	**7.0000e-005**	**9.8000e-004**	**1.0500e-003**	**0.0000**	**3.6849**	**3.6849**	**9.6000e-004**	**0.0000**	**3.7051**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	2.4100e-003	0.0227	0.0172	4.0000e-005	4.3000e-004	1.0400e-003	1.4700e-003	7.0000e-005	9.8000e-004	1.0500e-003	0.0000	3.6849	3.6849	9.6000e-004	0.0000	3.7051
Total	**2.4100e-003**	**0.0227**	**0.0172**	**4.0000e-005**	**4.3000e-004**	**1.0400e-003**	**1.4700e-003**	**7.0000e-005**	**9.8000e-004**	**1.0500e-003**	**0.0000**	**3.6849**	**3.6849**	**9.6000e-004**	**0.0000**	**3.7051**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	3/6/2019	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Off-Highway Trucks	4	8.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	11	28.00		26.00	14.70	6.90		LD_Mix	HDT_Mix	HDT_Mix

3.1 Mitigation Measures Construction

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0226	0.0166	4.0000e-005		1.0300e-003	1.0300e-003		9.8000e-004	9.8000e-004	0.0000	3.5567	3.5567	9.6000e-004	0.0000	3.5768
Total	**2.3700e-003**	**0.0226**	**0.0166**	**4.0000e-005**	**2.8000e-004**	**1.0300e-003**	**1.3100e-003**	**3.0000e-005**	**9.8000e-004**	**1.0100e-003**	**0.0000**	**3.5567**	**3.5567**	**9.6000e-004**	**0.0000**	**3.5768**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1282	0.1282	1.0000e-005	0.0000	0.1283
Total	**4.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1282**	**0.1282**	**1.0000e-005**	**0.0000**	**0.1283**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0226	0.0166	4.0000e-005		1.0300e-003	1.0300e-003		9.8000e-004	9.8000e-004	0.0000	3.5567	3.5567	9.6000e-004	0.0000	3.5768
Total	**2.3700e-003**	**0.0226**	**0.0166**	**4.0000e-005**	**2.8000e-004**	**1.0300e-003**	**1.3100e-003**	**3.0000e-005**	**9.8000e-004**	**1.0100e-003**	**0.0000**	**3.5567**	**3.5567**	**9.6000e-004**	**0.0000**	**3.5768**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	6.0000e-005	6.4000e-004	0.0000	1.5000e-004	0.0000	1.5000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1282	0.1282	1.0000e-005	0.0000	0.1283
Total	**4.0000e-005**	**6.0000e-005**	**6.4000e-004**	**0.0000**	**1.5000e-004**	**0.0000**	**1.5000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1282**	**0.1282**	**1.0000e-005**	**0.0000**	**0.1283**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

LOCAL SIGNIFICANCE THRESHOLDS:
ALTERNATIVE 2 GRADING, PAVING AND SITE PREPARATION FOR PIPE EXCAVATION FOR ALL PROJECT SEGMENTS (EXCEPT WESTSIDE PUMP STATION)

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OCSD Los Alamitos Replacement Alternative 2 LST

South Coast Air Basin, Annual

1.0 Project Characteristics

1.1 Land Usage

1.2 Other Project Characteristics

Urbanization	Urban	**Wind Speed (m/s)**	2.2	**Precipitation Freq (Days)**	31
Climate Zone	8			**Operational Year**	2020
Utility Company					
CO2 Intensity (lb/MWhr)	0	**CH4 Intensity (lb/MWhr)**	0	**N2O Intensity (lb/MWhr)**	0

1.3 User Entered Comments & Non-Default Data

Project Characteristics -

Land Use -

Construction Phase - revised phasing

Off-road Equipment - revised to include equipment and operations

Off-road Equipment - revised to include equipment and operations

Off-road Equipment - revised to include equipment and operations

Trips and VMT - revised to include trips

Grading -

Construction Off-road Equipment Mitigation -

Table Name	Column Name	Default Value	New Value
tblConstructionPhase	NumDays	0.00	1.00
tblConstructionPhase	NumDays	0.00	1.00

tblConstructionPhase	NumDays	0.00	1.00
tblGrading	MaterialExported	0.00	210.00
tblGrading	MaterialExported	0.00	210.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	2.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	4.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	OffRoadEquipmentUnitAmount	0.00	1.00
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Site Preparation
tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	PhaseName		Paving
tblOffRoadEquipment	PhaseName		Paving

tblOffRoadEquipment	PhaseName		Grading
tblOffRoadEquipment	UsageHours	7.00	4.00
tblOffRoadEquipment	UsageHours	6.00	8.00
tblOffRoadEquipment	UsageHours	7.00	4.00
tblProjectCharacteristics	OperationalYear	2014	2020
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	HaulingVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	VendorVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix
tblTripsAndVMT	WorkerVehicleClass		EMFAC_Mix

2.0 Emissions Summary

2.1 Overall Construction

Unmitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.8400e-003	0.0367	0.0291	7.0000e-005	1.0800e-003	1.7200e-003	2.8000e-003	3.5000e-004	1.6100e-003	1.9600e-003	0.0000	5.8845	5.8845	1.5000e-003	0.0000	5.9159
Total	**3.8400e-003**	**0.0367**	**0.0291**	**7.0000e-005**	**1.0800e-003**	**1.7200e-003**	**2.8000e-003**	**3.5000e-004**	**1.6100e-003**	**1.9600e-003**	**0.0000**	**5.8845**	**5.8845**	**1.5000e-003**	**0.0000**	**5.9159**

Mitigated Construction

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Year	tons/yr										MT/yr					
2019	3.8400e-003	0.0367	0.0291	7.0000e-005	1.0800e-003	1.7200e-003	2.8000e-003	3.5000e-004	1.6100e-003	1.9600e-003	0.0000	5.8845	5.8845	1.5000e-003	0.0000	5.9159
Total	**3.8400e-003**	**0.0367**	**0.0291**	**7.0000e-005**	**1.0800e-003**	**1.7200e-003**	**2.8000e-003**	**3.5000e-004**	**1.6100e-003**	**1.9600e-003**	**0.0000**	**5.8845**	**5.8845**	**1.5000e-003**	**0.0000**	**5.9159**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.03**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

2.2 Overall Operational

Unmitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Mitigated Operational

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Area	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**0.0000**					**0.0000**	**0.0000**		**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio-CO2	Total CO2	CH4	N20	CO2e
Percent Reduction	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

3.0 Construction Detail

Construction Phase

Phase Number	Phase Name	Phase Type	Start Date	End Date	Num Days Week	Num Days	Phase Description
1	Site Preparation	Site Preparation	3/6/2019	3/6/2019	5	1	
2	Grading	Grading	3/7/2019	3/7/2019	5	1	
3	Paving	Paving	3/8/2019	3/8/2019	5	1	

Acres of Grading (Site Preparation Phase): 0.5

Acres of Grading (Grading Phase): 0

Acres of Paving: 0

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

OffRoad Equipment

Phase Name	Offroad Equipment Type	Amount	Usage Hours	Horse Power	Load Factor
Site Preparation	Air Compressors	1	6.00	78	0.48
Site Preparation	Concrete/Industrial Saws	1	8.00	81	0.73
Site Preparation	Excavators	1	8.00	162	0.38
Site Preparation	Generator Sets	1	8.00	84	0.74
Site Preparation	Off-Highway Trucks	4	8.00	400	0.38
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Site Preparation	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Grading	Cranes	1	6.00	226	0.29
Grading	Excavators	1	8.00	162	0.38
Grading	Generator Sets	1	8.00	84	0.74
Grading	Off-Highway Trucks	1	4.00	400	0.38
Grading	Plate Compactors	1	4.00	8	0.43
Grading	Tractors/Loaders/Backhoes	1	6.00	97	0.37
Grading	Tractors/Loaders/Backhoes	1	8.00	97	0.37
Paving	Off-Highway Trucks	1	5.00	400	0.38
Paving	Paving Equipment	1	6.00	130	0.36
Paving	Rollers	1	4.00	80	0.38
Paving	Tractors/Loaders/Backhoes	1	4.00	97	0.37

Trips and VMT

Phase Name	Offroad Equipment Count	Worker Trip Number	Vendor Trip Number	Hauling Trip Number	Worker Trip Length	Vendor Trip Length	Hauling Trip Length	Worker Vehicle Class	Vendor Vehicle Class	Hauling Vehicle Class
Site Preparation	11	28.00		26.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix
Grading	9	23.00		26.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix
Paving	9	23.00		0.00	14.70	6.90		EMFAC_Mix	EMFAC_Mix	EMFAC_Mix

3.1 Mitigation Measures Construction

Clean Paved Roads

3.2 Site Preparation - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0226	0.0166	4.0000e-005		1.0300e-003	1.0300e-003		9.8000e-004	9.8000e-004	0.0000	3.5567	3.5567	9.6000e-004	0.0000	3.5768
Total	**2.3700e-003**	**0.0226**	**0.0166**	**4.0000e-005**	**2.8000e-004**	**1.0300e-003**	**1.3100e-003**	**3.0000e-005**	**9.8000e-004**	**1.0100e-003**	**0.0000**	**3.5567**	**3.5567**	**9.6000e-004**	**0.0000**	**3.5768**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-004	7.1000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1656	0.1656	1.0000e-005	0.0000	0.1657
Total	**5.0000e-005**	**2.0000e-004**	**7.1000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1656**	**0.1656**	**1.0000e-005**	**0.0000**	**0.1657**

3.2 Site Preparation - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					2.8000e-004	0.0000	2.8000e-004	3.0000e-005	0.0000	3.0000e-005	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	2.3700e-003	0.0226	0.0166	4.0000e-005		1.0300e-003	1.0300e-003		9.8000e-004	9.8000e-004	0.0000	3.5567	3.5567	9.6000e-004	0.0000	3.5768
Total	**2.3700e-003**	**0.0226**	**0.0166**	**4.0000e-005**	**2.8000e-004**	**1.0300e-003**	**1.3100e-003**	**3.0000e-005**	**9.8000e-004**	**1.0100e-003**	**0.0000**	**3.5567**	**3.5567**	**9.6000e-004**	**0.0000**	**3.5768**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	5.0000e-005	2.0000e-004	7.1000e-004	0.0000	1.6000e-004	0.0000	1.6000e-004	4.0000e-005	0.0000	4.0000e-005	0.0000	0.1656	0.1656	1.0000e-005	0.0000	0.1657
Total	**5.0000e-005**	**2.0000e-004**	**7.1000e-004**	**0.0000**	**1.6000e-004**	**0.0000**	**1.6000e-004**	**4.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1656**	**0.1656**	**1.0000e-005**	**0.0000**	**0.1657**

3.3 Grading - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	9.3600e-003	7.4400e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	1.2575	1.2575	3.2000e-004	0.0000	1.2643
Total	**9.3000e-004**	**9.3600e-003**	**7.4400e-003**	**1.0000e-005**	**3.9000e-004**	**4.8000e-004**	**8.7000e-004**	**2.1000e-004**	**4.5000e-004**	**6.6000e-004**	**0.0000**	**1.2575**	**1.2575**	**3.2000e-004**	**0.0000**	**1.2643**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.7000e-004	5.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**4.0000e-005**	**1.7000e-004**	**5.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1360**	**0.1360**	**0.0000**	**0.0000**	**0.1361**

3.3 Grading - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Fugitive Dust					3.9000e-004	0.0000	3.9000e-004	2.1000e-004	0.0000	2.1000e-004	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Off-Road	9.3000e-004	9.3600e-003	7.4400e-003	1.0000e-005		4.8000e-004	4.8000e-004		4.5000e-004	4.5000e-004	0.0000	1.2575	1.2575	3.2000e-004	0.0000	1.2643
Total	**9.3000e-004**	**9.3600e-003**	**7.4400e-003**	**1.0000e-005**	**3.9000e-004**	**4.8000e-004**	**8.7000e-004**	**2.1000e-004**	**4.5000e-004**	**6.6000e-004**	**0.0000**	**1.2575**	**1.2575**	**3.2000e-004**	**0.0000**	**1.2643**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.7000e-004	5.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**4.0000e-005**	**1.7000e-004**	**5.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1360**	**0.1360**	**0.0000**	**0.0000**	**0.1361**

3.4 Paving - 2019

Unmitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	4.2100e-003	3.2300e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.8000e-004	1.8000e-004	0.0000	0.6327	0.6327	2.0000e-004	0.0000	0.6369
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**4.2100e-003**	**3.2300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6327**	**0.6327**	**2.0000e-004**	**0.0000**	**0.6369**

Unmitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.7000e-004	5.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**4.0000e-005**	**1.7000e-004**	**5.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1360**	**0.1360**	**0.0000**	**0.0000**	**0.1361**

3.4 Paving - 2019

Mitigated Construction On-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Off-Road	4.1000e-004	4.2100e-003	3.2300e-003	1.0000e-005		2.0000e-004	2.0000e-004		1.8000e-004	1.8000e-004	0.0000	0.6327	0.6327	2.0000e-004	0.0000	0.6369
Paving	0.0000					0.0000	0.0000		0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Total	**4.1000e-004**	**4.2100e-003**	**3.2300e-003**	**1.0000e-005**		**2.0000e-004**	**2.0000e-004**		**1.8000e-004**	**1.8000e-004**	**0.0000**	**0.6327**	**0.6327**	**2.0000e-004**	**0.0000**	**0.6369**

Mitigated Construction Off-Site

	ROG	NOx	CO	SO2	Fugitive PM10	Exhaust PM10	PM10 Total	Fugitive PM2.5	Exhaust PM2.5	PM2.5 Total	Bio- CO2	NBio- CO2	Total CO2	CH4	N2O	CO2e
Category	tons/yr										MT/yr					
Hauling					0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vendor	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Worker	4.0000e-005	1.7000e-004	5.8000e-004	0.0000	1.3000e-004	0.0000	1.3000e-004	3.0000e-005	0.0000	4.0000e-005	0.0000	0.1360	0.1360	0.0000	0.0000	0.1361
Total	**4.0000e-005**	**1.7000e-004**	**5.8000e-004**	**0.0000**	**1.3000e-004**	**0.0000**	**1.3000e-004**	**3.0000e-005**	**0.0000**	**4.0000e-005**	**0.0000**	**0.1360**	**0.1360**	**0.0000**	**0.0000**	**0.1361**

4.0 Operational Detail - Mobile

4.1 Mitigation Measures Mobile

4.2 Trip Summary Information

	Average Daily Trip Rate			Unmitigated	Mitigated
Land Use	Weekday	Saturday	Sunday	Annual VMT	Annual VMT
Total					

4.3 Trip Type Information

	Miles			Trip %			Trip Purpose %		
Land Use	H-W or C-W	H-S or C-C	H-O or C-NW	H-W or C-W	H-S or C-C	H-O or C-NW	Primary	Diverted	Pass-by

LDA	LDT1	LDT2	MDV	LHD1	LHD2	MHD	HHD	OBUS	UBUS	MCY	SBUS	MH
0.510092	0.059583	0.181091	0.139410	0.042694	0.006692	0.016202	0.032692	0.001943	0.002491	0.004392	0.000576	0.002140

4.4 Fleet Mix

5.0 Energy Detail

Historical Energy Use: N

5.1 Mitigation Measures Energy

6.0 Area Detail

6.1 Mitigation Measures Area

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

6.2 Area by SubCategory

Unmitigated

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

6.2 Area by SubCategory

Mitigated

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

7.0 Water Detail

7.1 Mitigation Measures Water

8.0 Waste Detail

8.1 Mitigation Measures Waste

9.0 Operational Offroad

Equipment Type	Number	Hours/Day	Days/Year	Horse Power	Load Factor	Fuel Type

10.0 Vegetation

DRAFT

ENVIRONMENTAL IMPACT REPORT FOR

ORANGE COUNTY SANITATION DISTRICT

REHABILITATION OF WESTERN REGIONAL SEWERS

PROJECT NO. 3-64

APPENDIX C

CULTURAL RESOURCES CONSTRAINTS

C-1: PALEONTOLOGICAL RESOURCES CONSTRAINTS ADDENDUM

C-2: CULTURAL RESOURCES CONSTRAINTS ADDENDUM AND REPORT

OCTOBER 2016

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APPENDIX C-1

PALEONTOLOGICAL RESOURCES CONSTRAINTS ADDENDUM

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PALEONTOLOGICAL RESOURCES CONSTRAINTS REPORT: ADDENDUM TO THE ORANGE COUNTY SANITATION DISTRICT – REHABILITATION OF WESTERN REGIONAL SEWERS, PROJECT NO. 3-64

ORANGE COUNTY, CALIFORNIA

Prepared for:

JACOBS ENGINEERING GROUP

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PSI Report #: CA16OrangeJAC02

Principal Investigator and Report Author:

Geraldine L. Aron, M.S.

Report Author:

Courtney D. Richards, M.S.

May 2016

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FIGURES

INTRODUCTION

This report serves as addendum to the Draft Environmental Impact Report For Cultural Resource Section 4.4, and with respect to paleontological resources for the Orange County Sanitation District's (OCSD) Rehabilitation of Western Regional Sewers, Project No. 3-64 (Project). The adoption of a build alternative to the proposed Project's construction plans requires a reassessment of potential impact to paleontological resources within or near the Project alignment. The OCSD has adopted Build Alternative 2 as a reasonable and feasible approach to the proposed Project to satisfy the capacity requirements currently projected for the Westside Relief Interceptor. Build Alternative 2 would construct a second diversion structure at the intersection of Denni St and Orange Avenue, and would divert all flow from the Westside Relief Interceptor north of Orange Avenue to an enlarged Los Alamitos Sub-trunk (see Figure 1).

DESCRIPTION OF BUILD ALTERNATIVE 2

The design specifications of Build Alternative 2 are different from those of the originally adopted Project design, and therefore require a reassessment of potential impacts to paleontological resources as a result of these design changes. Build Alternative 2 requires the Western Relief Interceptor to be rehabilitated in place along its alignment by adopting cured-in-place pipe (CIPP) methods using concrete slurry. The Orange-Western Sub-trunk and Seal Beach boulevard Interceptor pipelines would also be abandoned in place using CIPP methods. Along with abandoning the existing alignment, Build Alternative 2 would also require manholes be rehabilitated or replaced, contingent upon conditions and access point sizes. The alignment of the Los Alamitos Sub-trunk pipeline, currently 34,620 ft long, would be increased to accommodate flows from the Westside Relief Interceptor through a new diversion structure at Denni Street and Orange Avenue. In addition, pipe diameters of the alignment, currently 18 in. to 30 in., would be increased to diameters of 21 in. to 33 in. The new pipeline would require trenching and open-cut construction to a depth of approximately 14 ft below ground surface along the entire Los Alamitos Sub-trunk street alignment. This would require an additional 3,100 linear ft extension of the alignment compared to Build Alternative 1.

Figure 1. Project overview map.

ANALYSIS OF IMPACTS TO PALEONTOLOGICAL RESOURCES

Under Build Alternative 2, the general alignment of the Proposed project would remain unchanged, and the results of the analysis for paleontological resources would not be considerably affected. The results provided in the Draft Environmental Impact Report (DEIR) for paleontology accounted for in previous investigations within the Project alignment. Because the horizontal extent of the Project is anticipated to be the same as that of the original Project design, the results remain applicable to the proposed specifications of Build Alternative 2.

Construction impacts to paleontological resources will be less than significant with mitigation (MM-2 and MM-8). The Project is located primarily within paved public rights-of-way within city streets or OCSD easements, and adjacent to existing pipelines. As such, the proposed improvements would primarily impact areas that have already been disturbed. Additionally, the young alluvial fan deposits and artificial fill that are mapped at the surface of the project area have low paleontological potential. However, the discovery of paleontological resources during ground-disturbing activities cannot be entirely discounted, particularly during cut and cover trenching. In the unlikely event that paleontological materials are unearthed, implementation of mitigation measures would reduce construction impacts to paleontological resources to less than significant

The Project would not result in operational impacts to paleontological resources.

RECOMMENDATIONS AND CONCLUSIONS

The proposed Project, as a consequence of adopting Build Alternative 2, is anticipated to have a less than significant potential impact to paleontological resources. However, as the Project calls for open-cut trenching down to depths of 14 ft along portions of the Project alignment, the discovery of paleontological resources during ground-disturbing activities cannot be entirely discounted. In the unlikely event that paleontological materials are unearthed, implementation of mitigation measures would reduce construction impacts to paleontological resources to less than significant. The Project activities should continue to adopt the mitigation measures outlined in the DEIR.

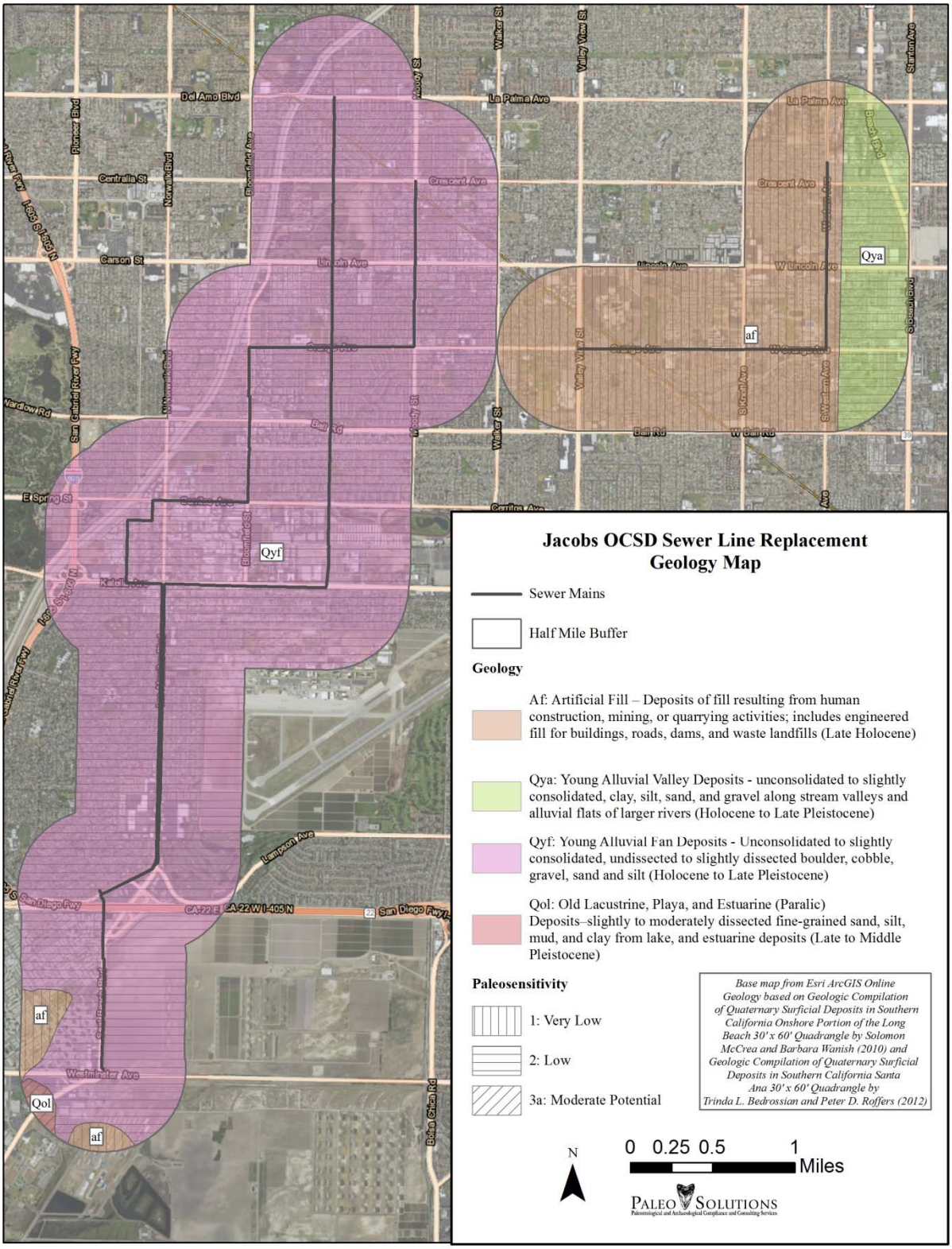
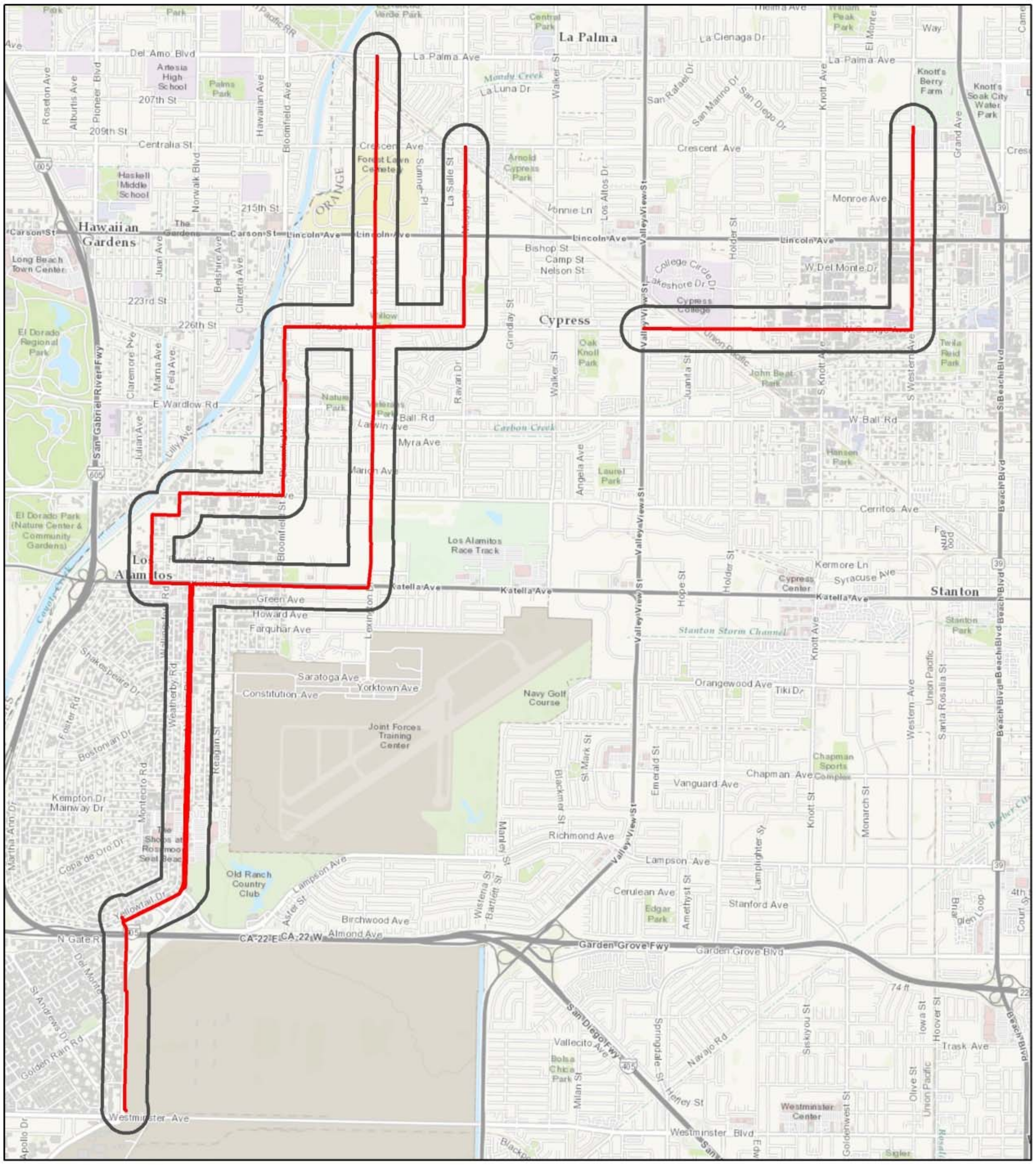


Figure 2. Project alignment with geology and paleontological sensitivity overlayed.



Jacobs OCSD Sewer Line Replacement Location Map

N

0 0.5 1 2 Miles

OCSD Sewer Line

1/8 Mile Buffer

PALEO SOLUTIONS
Paleontological and Archaeological Compliance and Consulting Services

Base map from Esri ArcGIS Online USA Topos

APPENDIX C-2

CULTURAL RESOURCES CONSTRAINTS ADDENDUM AND REPORT

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CULTURAL RESOURCES CONSTRAINTS REPORT: ADDENDUM TO THE ORANGE COUNTY SANITATION DISTRICT – REHABILITATION OF WESTERN REGIONAL SEWERS, PROJECT NO. 3-64 ORANGE COUNTY, CALIFORNIA

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Principal Investigator:

Geraldine L. Aron, M.S.

Report Author:

Michael Kay, M.A., RPA

With contributions by

Ronald Johnson, B.A.

May 2016

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FIGURES

INTRODUCTION

This report serves as addendum to the Cultural Resources Constraints Report (Kay 2015[1]) for the Orange County Sanitation District's (OCSD) Rehabilitation of Western Regional Sewers, Project No. 3-64 (Project). The adoption of a build alternative to the proposed Project's construction plans requires a reassessment of potential impact to cultural resources within or near the Project alignment. The OCSD has adopted Build Alternative 2 as a reasonable and feasible approach to the proposed Project to satisfy the capacity requirements currently projected for the Westside Relief Interceptor. Build Alternative 2 would construct a second diversion structure at the intersection of Denni St and Orange Avenue, and would divert all flow from the Westside Relief Interceptor north of Orange Avenue to an enlarged Los Alamitos Sub-trunk (see Figure 1).

DESCRIPTION OF BUILD ALTERNATIVE 2

The design specifications of Build Alternative 2 are different from those of the originally adopted Project design, and therefore require a reassessment of potential impacts to cultural resources as a result of these design changes. Build Alternative 2 requires the Western Relief Interceptor to be rehabilitated in place along its alignment by adopting cured-in-place pipe (CIPP) methods using concrete slurry. The Orange-Western Sub-trunk and Seal Beach boulevard Interceptor pipelines would also be abandoned in place using CIPP methods. Along with abandoning the existing alignment, Build Alternative 2 would also require manholes be rehabilitated or replaced, contingent upon conditions and access point sizes. The alignment of the Los Alamitos Sub-trunk pipeline, currently 34,620 ft long, would be increased to accommodate flows from the Westside Relief Interceptor through a new diversion structure at Denni Street and Orange Avenue. In addition, pipe diameters of the alignment, currently 18 in. to 30 in., would be increased to diameters of 21 in. to 33 in. The new pipeline would require trenching and open-cut construction to a depth of approximately 14 ft below ground surface along the entire Los Alamitos Sub-trunk street alignment. This would require an additional 3,100 linear ft extension of the alignment compared to Build Alternative 1.

[1] Kay, Michael. 2015. *Cultural Resources Constraints Report: Orange County Sanitation District – Rehabilitation of Western Regional Sewers, Project No. 3-64, Orange County, California*. Paleo Solutions, Inc. Submitted to Jacobs Engineering, Ontario, California.

Figure 1. Project overview map.

ANALYSIS OF IMPACTS TO CULTURAL RESOURCES

Under Build Alternative 2, the general alignment of the Proposed project would remain unchanged, and the results of the analysis in the Cultural Constraints Report would not be considerably affected. The records searches, conducted at the South Central Coastal Information Center on June 9, 2015 and October 7, 2015, accounted for previous investigations and previously-documented cultural resources within the Project alignment and a 1/8-mile buffer (Figure 2). The results of the records search are presented in the Cultural Constraints Report. In addition, the field surveys of the Project area, conducted on July 25, 2015 and October 5, 2015, resulted in the discovery of the Forest Lawn Memorial Park in Cypress as a historical resource eligible for listing on the National Register of Historic Places and the California Register of Historical Resources. Because the horizontal extent of the Project is anticipated to be the same as that of the original Project design, the results of the records search and the field survey remain applicable to the proposed specifications of Build Alternative 2.

Anticipated potential impacts to cultural resources as a result of the adoption of Build Alternative 2 are less than significant in those areas where cultural resources have been identified. While the proposed Project will be undertaken within the boundaries of Forest Lawn Memorial Park, replacement of the Los Alamitos Sub-trunk within OCSD easement and Guardian Drive, would not affect any of the individual elements that contribute to Forest Lawn's historical significance and eligibility. These elements include the Ascension Mausoleum, Church of Our Fathers, mortuary building, and its associated facilities maintenance building, all of which comprise the original buildings of the Memorial Park.

In the Cultural Constraints Reports, the prehistoric site of P-30-001502, documented in 1999 as a scatter of prehistoric artifacts, was expected to have less than significant impact with mitigation. However, subsequent investigation in regard to the boundaries of the recorded site revealed that what would have been its westernmost boundary within the proposed Project's ROW had alredy been destroyed by the construction of Seal Beach Boulevard. Therefore, significant portions of this site are outside of the boundaries of the Project alignment, and no impacts are anticipated to this resource.

RECOMMENDATIONS AND CONCLUSIONS

The proposed Project, as a consequence of adopting Build Alternative 2, is anticipated to have a less than significant potential impact to no impact on historical or archaeological resources as defined in Section 15064.5 of the California Code of Regulations (CCR). The Project would intersect Forest Lawn Memorial Park in Cypress, but would have a less than potential significant impact on the resource with mitigation, as outlined in the Cultural Constraints Report. However, as the Project calls for open-cut trenching down to depths of 14 ft along portions of the Project alignment, there remains the possibility of encountering cultural resources that have yet to be identified or documented. The results of the records searches and surveys are based on resources that were exposed on or near the surface, but this does not exclude the possibility of subsurface deposits at lower depths, particularly in areas comprising native or undisturbed soils. Therefore, Project activities should continue to adopt the mitigation measures outlined in the Cultural Constraints Report and exercise care where cultural resources are known to exist. No other recommendations aside from those originally outlined in the Cultural Constraints Report are presented at this time.

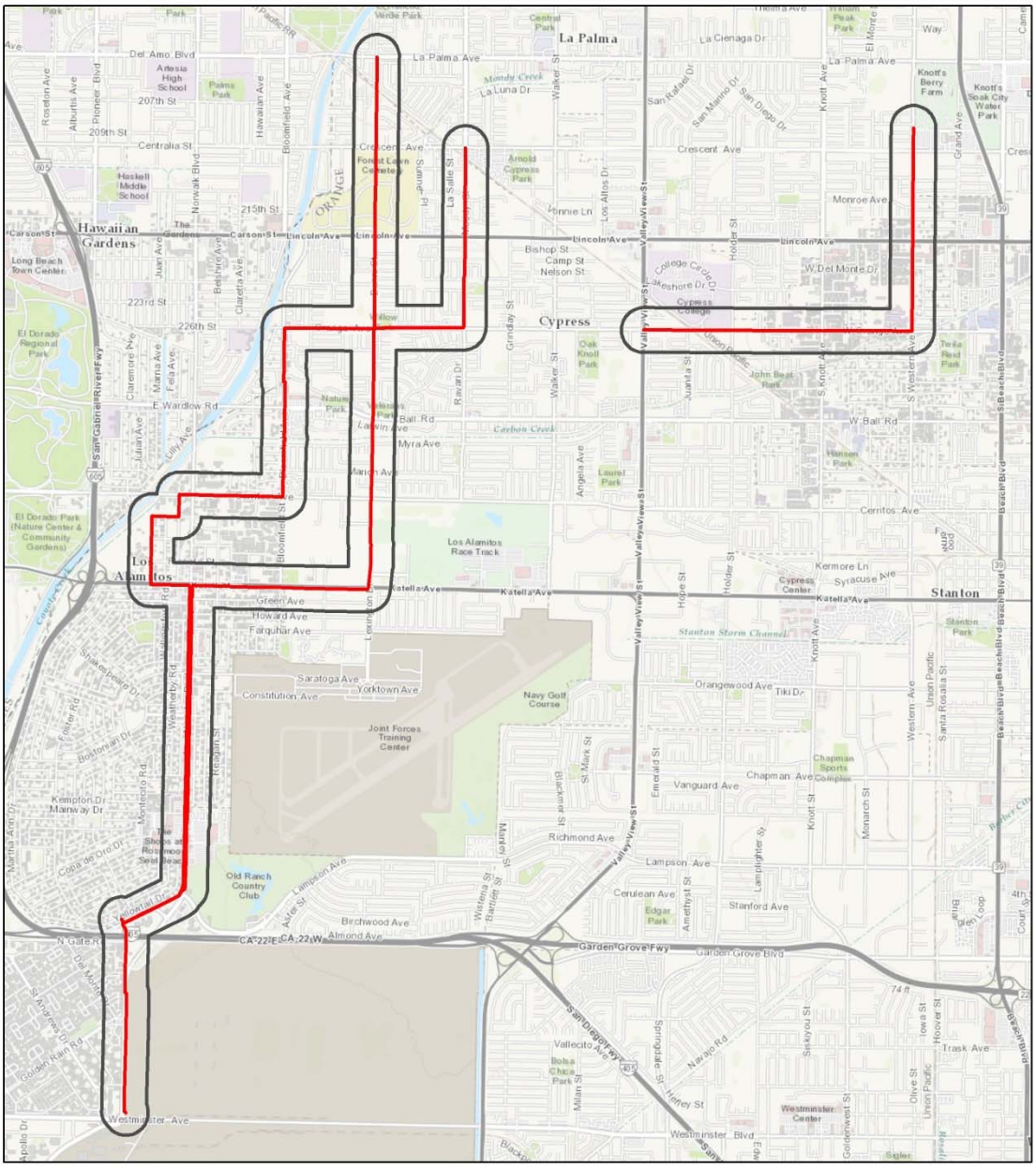

Figure 2. Project alignment with a 1/8-mile buffer.

CULTURAL RESOURCES CONSTRAINTS REPORT:

ORANGE COUNTY SANITATION DISTRICT – REHABILITATION OF WESTERN REGIONAL SEWERS, PROJECT NO. 3-64

ORANGE COUNTY, CALIFORNIA

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With contributions by

Ronald Johnson, B.A.

OCTOBER 2015

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1.0 EXECUTIVE SUMMARY

At the request of Jacobs Engineering Group (Jacobs), Paleo Solutions, Inc. (PSI) has prepared a Cultural Resources Constraints Report in support of the Initial Study for the Orange County Sanitation District's (OCSD) Rehabilitation of Western Regional Sewers, Project No. 3-64 (Project). The OCSD proposes the rehabilitation and/or reconstruction of 16 miles of existing pipelines in multiple municipalities and communities throughout Orange County. PSI was tasked with conducting a records search along with a field survey in order to assess the extent of Project impact to cultural resources. The study was conducted in compliance with national, state, and local laws pertaining to cultural resources. The results are summarized in Table 1.

The records search indicated that ten previously-recorded resources were identified within 1/8-mile of the Project area. Two previously-documented resources are located within the Project area, one of which was found to be a secondary deposit of archaeological materials brought in as fill for development in the area. The other is a prehistoric site along the Orange County Flood Control Channel, comprising a scatter of artifacts, the west boundary of which intersects a portion of the Project rights-of-way (ROW). The site is believed to have been disturbed by the development of the Orange County Flood Control Channel. In addition, the Project alignment was found to intersect one previously undocumented historical resource, the Forest Lawn Memorial Park (Forest Lawn) cemetery in Cypress. Based on a formal evaluation, Forest Lawn is eligible for listing on the National Register of Historic Places (NRHP) and the California Register of Historical Resources (CRHR). The Project is not anticipated to impact any significant contributing historical elements of the cemetery.

However, the survey also resulted in the discovery of hundreds of interments immediately adjacent to a 0.5-mile segment of the Project alignment within the cemetery. Proposed Project plans may impact these interments due to the immediate proximity to the Project's rights-of-way. Mitigation measures have been recommended to prevent disturbance to these interments. These measures include physical barriers, visual aids, and defined spatial buffers, as well as full-time cultural resources monitoring for Project activities along this segment. Impact will be reduced to less than significant with mitigation.

Monitoring is not necessary for those segments of the Project alignment that will not disturb previously unexcavated soil. However, cultural resources monitoring is recommended for those segments within the proposed Project alignment that require excavation into undisturbed soil or within close proximity to the interments of Forest Lawn.

Table 1. OCSD – WESTERN REGIONAL SEWERS PROJECT SUMMARY.

Project Name	Orange County Sanitation District – Rehabilitation of Western Regional Sewers				
Project Description	The OCSD proposes the rehabilitation and/or reconstruction of the alignments of the Orange Los Alamitos Sub-Trunk, Western Sub-Trunk, Westside Relief Interceptor, and Seal Beach Interceptor regional pipelines underneath existing public rights-of-ways (ROWs).				
Project Area	The Project alignments are located in Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Seal Beach, and the unincorporated area of Rossmoor; the Westside Pump Station is located in Rossmoor. The Seal Beach Pump House at the southernmost end of the Project alignment is in the city of Seal Beach.				
Total Acreage	Approximately 16 linear miles				
Location (PLSS) and Land Owner	**Quarter-Quarter**	**Section**	**Township**	**Range**	**Land Ownership**
	Multiple – See Project Area	1, 6, 8, 11, 14, 15, 17, 18, 19, 30, 31	4 S	11 W	Public/Private
Topographic Map(s)	USGS Los Alamitos 7.5’				
Surveyor(s)	Michael Kay, M.A, RPA; Katie DeBiase, M.H.P.; Barbara Webster, M.S.				
Dates Surveyed	June 25, 2015; October 5, 2015				
Previously Documented Cultural Resources within 1/8-mile radius of the Project area	Ten previously-recorded resources were identified within 1/8 mile of the Project area. One (P-30-001352) was initially identified as a potential prehistoric shell midden, but was subsequently identified as an introduced deposit in association with development projects. The site has since been destroyed by development in the area, including the I-405 highway. Another site containing a prehistoric scatter of shell, bone, and human remains (site P-30-001502) was found adjacent to the east of the Seal Beach Interceptor alignment, and on the current property of the U.S. Naval Weapons Support Facilities. The western edge of the site is within the proposed Project alignment. The other eight resources are six historic period buildings, a segment of railroad tracks associated with the Southern Pacific and Union Railroads, and one historic district outside the Project rights-of-way.				
Method of survey	Survey involved vehicular and pedestrian surveys along the alignment of the proposed Project area. Pedestrian surveys were conducted in potentially sensitive areas, particularly those adjacent to sites, historical buildings, structures, or features. Transects for pedestrian surveys were 10 meters.				
Archaeological Survey Results	The Project alignment was found to intersect one previously undocumented historical resource, the Forest Lawn Memorial Park cemetery in Cypress. The Forest Lawn cemetery is eligible for listing on the NRHP and CRHR based on a formal evaluation process. The survey also resulted in the discovery of hundreds of interments immediately adjacent to a 0.5-mile segment of the Project area within the cemetery.				

Archaeological Sensitivity	The segment of the Project ROW intersecting site P-30-001352 is anticipated to have low to moderate archaeological sensitivity due to the resource's mode of deposition and the extent of disturbance. The segment of the Seal Beach Interceptor alignment exhibits moderate to high archaeological sensitivity due to the proximity to the site of P-30-001502, which was reported to contain stone tools, shell, bones, and human remains that were discovered and collected in 1999 by Mooney and Associates (Case and Carrico, 1999). Because the artifacts were found along the banks of the Flood Control Channel, the site is believed to have been subject to disturbance caused by the development of the Orange County Flood Control Channel. The proposed Project is expected to have less than significant impact with mitigation on the two previously documented prehistoric sites. The Forest Lawn cemetery is historically significant and eligible for listing in the NRHP and the CRHR. Given the close proximity between the Project's rights-of-way and the existing interments within Forest Lawn, disturbance to nearby interments is possible; therefore, mitigation measures have been recommended.
Recommendation(s)	The Forest Lawn Memorial Park is eligible for listing as a district on the NRHP and CRHR through a formal evaluation prepared for this Project. Impacts to contributing historical elements of the district are less than significant with mitigation measures in place to avoid these elements. However, impacts to known burials in Forest Lawn, which are potentially significant without mitigation measures in place, can be reduced to less than significant if mitigation measures are implemented and strictly monitored. Specifically, Project activities should be limited to the ROW to avoid disturbance of the interments. In addition, protective measures should be put in place to prevent any Project activities from disturbing adjacent interments and markers. These measures may include physical barriers, visual aids, and defined spatial buffers to provide appropriate distances between specific areas where Project activities are being conducted and the interments themselves. Cultural resources monitoring is recommended for the 0.5-mile segment of the Project ROW along Guardian Drive within the Forest Lawn Memorial Park. Archaeological monitoring is recommended along the Seal Beach Interceptor alignment for the segment intersecting the previously documented prehistoric site, P-30-001502), as the western boundary of the site is reported to intersect the Project ROW. The area is sensitive for prehistoric cultural materials, so mitigation measures should include the treatment of such materials should they be discovered during the Project. Given the loss of contextual integrity of introduced materials comprising the site, P-30-001352, which appears to have been fully compromised by the modern development, archaeological monitoring is currently not recommended for the area at the north end of the Seal Beach Interceptor alignment, south of the Westside Pump Station. However, mitigation measures should include a protocol to contact a professional archaeologist should cultural resources be encountered during Project activities in this area. Monitoring is not necessary for those segments of the Project alignment that will not disturb native soil. Cultural resources monitoring is recommended for those segments within the proposed Project alignment that require excavation into undisturbed, native soil. In addition, mitigation measures should include a protocol should discoveries occur in association with Project activities, such as avoidance of the resource and the area of discovery until a professional archaeologist has had the opportunity to identify and evaluate the resource, as well as a program specifying the treatment, curation, or transfer of archaeological materials.

2.0 INTRODUCTION

At the request of Jacobs Engineering Group (Jacobs), Paleo Solutions, Inc. (PSI) has prepared a Cultural Resources Constraints Report in support of the Initial Study for the Orange County Sanitation District's (OCSD) Rehabilitation of Western Regional Sewers, Project No. 3-64 (Project). PSI was tasked with conducting a records search along with a field survey in order to assess the extent of Project impact to cultural resources. The study was conducted in compliance with national, state, and local laws pertaining to cultural resources.

The OCSD proposes the rehabilitation and/or reconstruction of the alignments of the Orange Los Alamitos Sub-Trunk, Western Sub-Trunk, and Westside Relief Interceptor regional pipelines. The pipeline alignments are located in the cities of Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Seal Beach, and the unincorporated area of Rossmoor; the Westside Pump Station is located in Rossmoor, and the Seal Beach Pump House is located in Seal Beach. The length of the Project alignment is approximately 16 miles in its entirety.

This report presents the Project background, environmental and cultural context, methods of background research and survey, the results of the records search and survey, and recommendations for potential impact to cultural resources during construction activities related to the Project. Geraldine Aron, M.S., serves as the Principal Investigator for the Project. Archaeologist Michael Kay, M.A., RPA, who is on the list of Orange County registered archaeologists, has authored the report. Archaeologist Ronald Johnson, B.A., contributed historical backgrounds of the local cities and communities within the Project area. Archaeologist and GIS Analyst Barbara Webster, M.S., provided maps for the report. Michael Kay, Barbara Webster, and architectural historian Katie DeBiase, M.H.P., conducted the surveys.

3.0 PROJECT DESCRIPTION

The pipelines subject to rehabilitation or reconstruction for the proposed Project have reached or exceeded functional capacity and life, resulting in intrusion of groundwater, impediment of flow due to hard calcium buildup, and incapacity to handle projected 2030 wet-weather sewer flows. The purpose of the Project is to address these issues through the rehabilitation of the existing lines or the reconstruction of new alignments parallel to those that can not be rehabilitated.

The Project will involve the rehabilitation and/or reconstruction of pipeline alignments underneath existing rights-of-way (ROWs) throughout seven municipalities and communities in Orange County (Figures 1, 2, 3, and 4). The pipelines to be replaced are those within the current alignments of the Orange Los Alamitos Sub-Trunk, Western Sub-Trunk, Westside Relief Interceptor, and the Seal Beach Interceptor. Project activities will be limited to those pipes underneath the existing road pavements and are not expected to extend beyond the ROWs.

The pipeline alignment of the Western Sub-trunk is 13,940 feet long and 21 inches in diameter. The alignment begins just north of the intersection of Crescent Avenue and Western Avenue in Buena Park, and extends southward on Western Avenue. The alignment turns west on West Orange Avenue to connect to the Knott Interceptor.

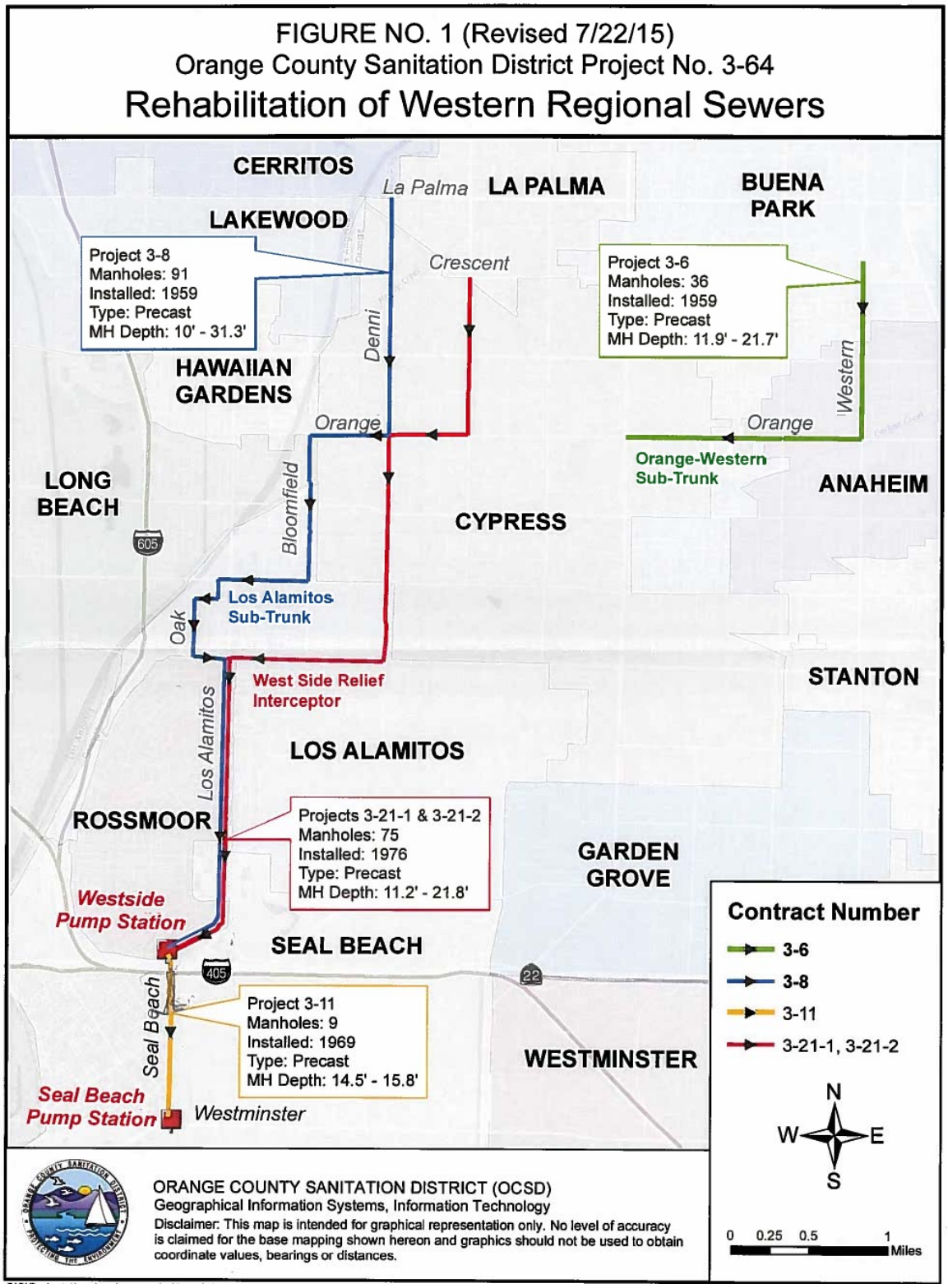

Figure 1. Overview of the Project ROW. Image courtesy of the OCSD.

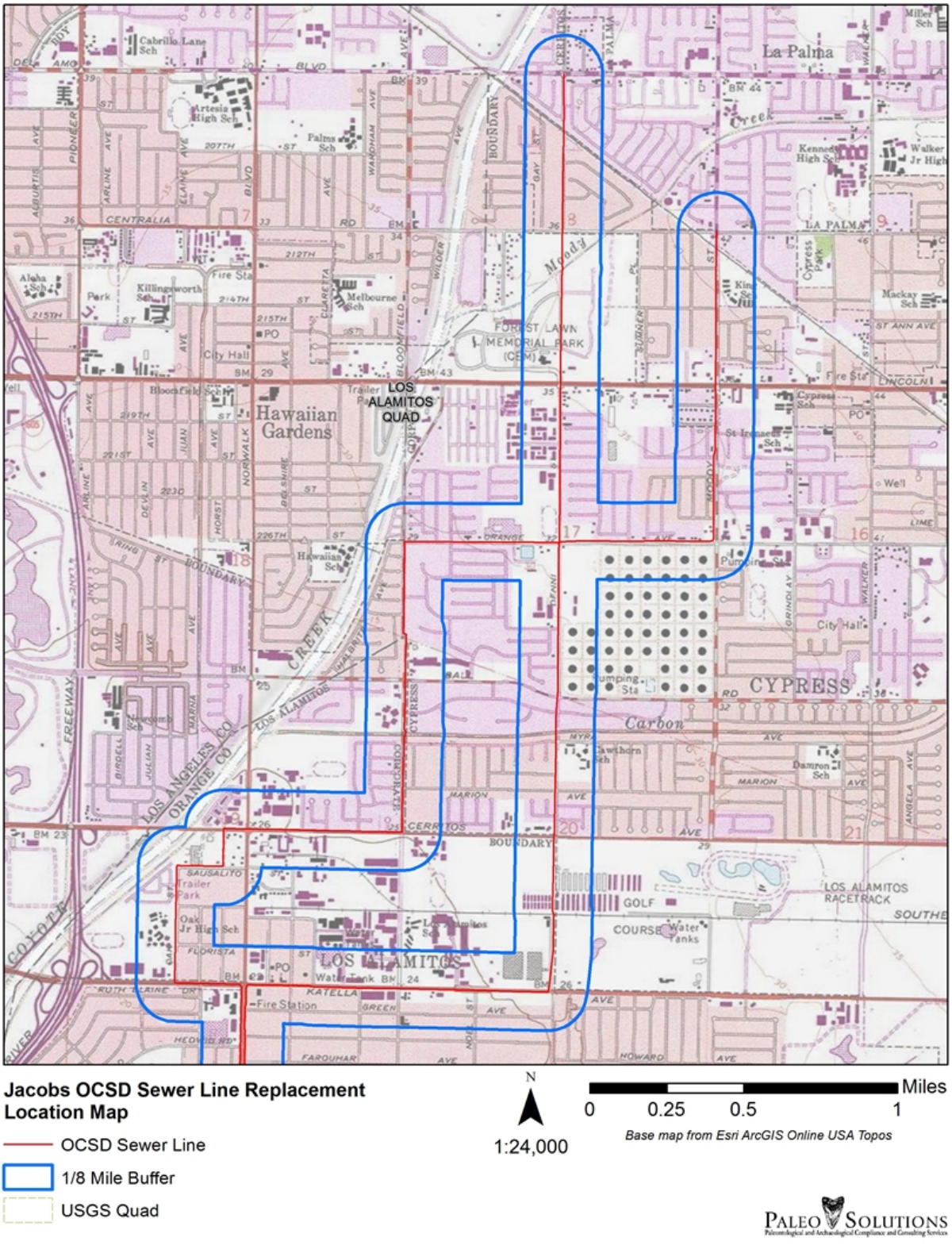

Figure 2. Project ROW for the Los Alamitos Sub-Trunk and Westside Relief Interceptor, with 1/8-mile records search buffer.

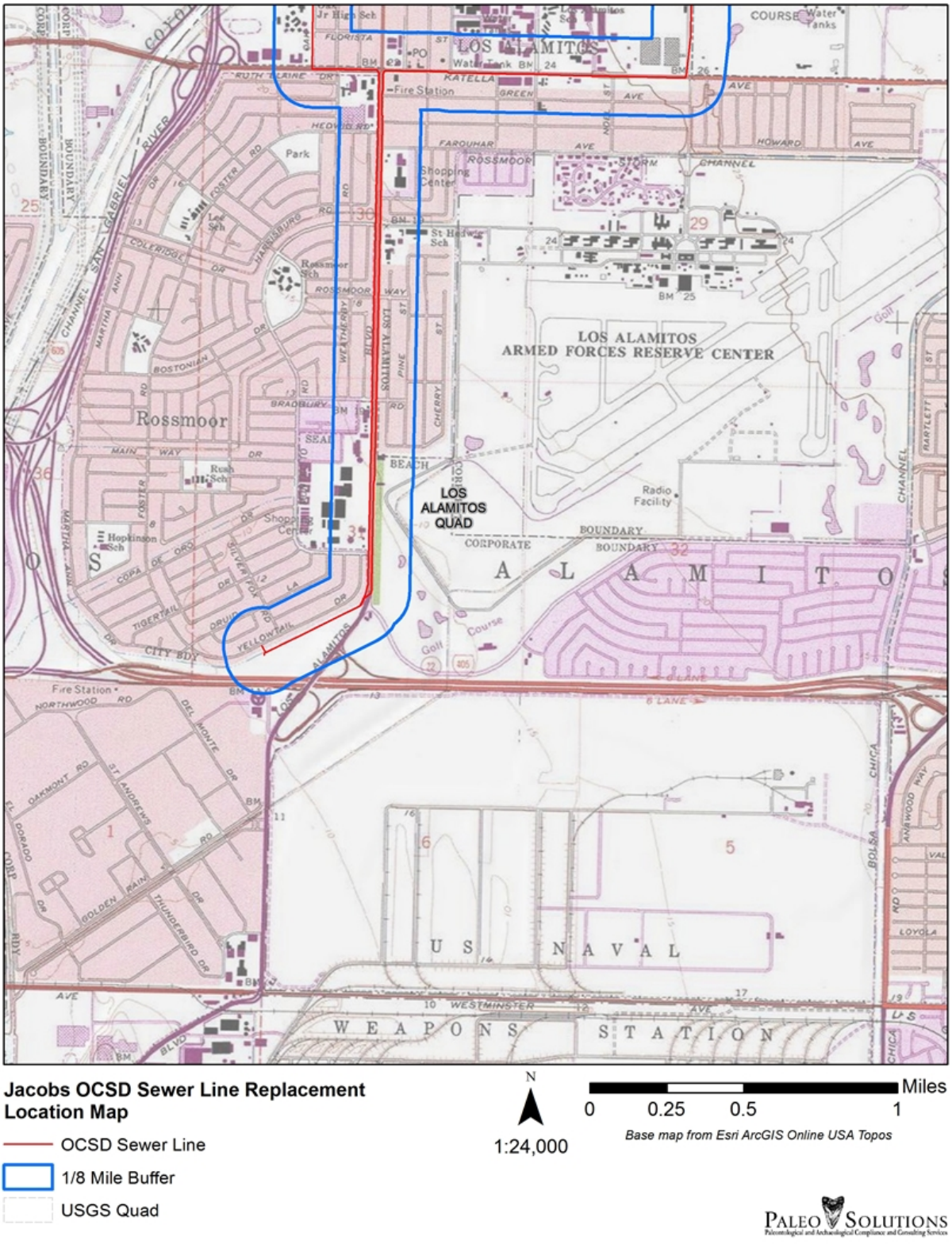

Figure 3. Project ROW for the southern alignment of the Westside Relief Interceptor, with 1/8-mile records search buffer.

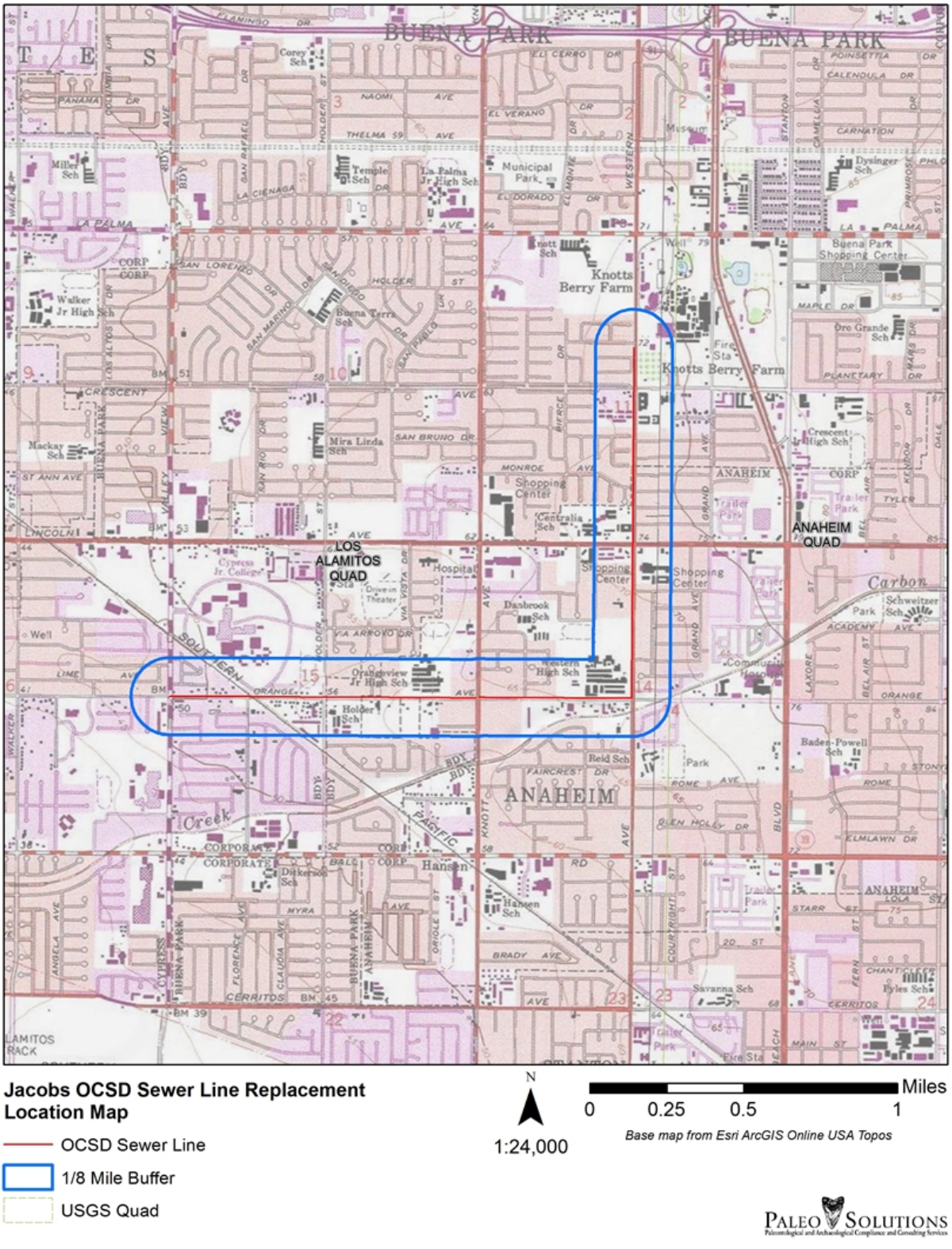

Figure 4. Project ROW for the Western Sub-Trunk, with 1/8-mile records search buffer.

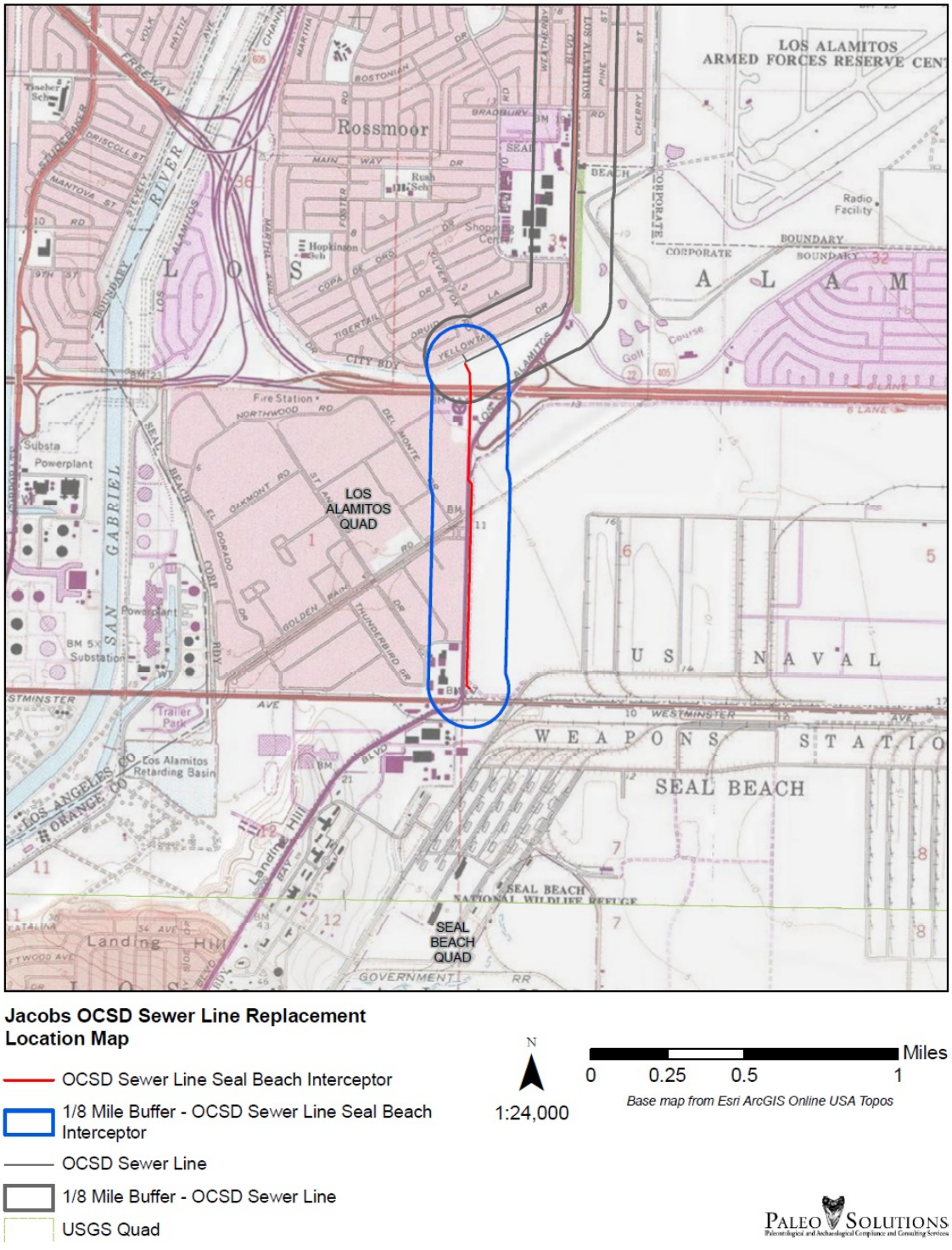

Figure 5. Project ROW for the Seal Beach Interceptor, with 1/8-mile records search buffer.

The Los Alamitos Sub-Trunk is 34,620 feet long and 18 to 30 inches in diameter. The alignment starts at the intersection of La Palma Avenue and Denni Street in La Palma and continues southward on Denni Street and underneath the Forest Lawn Memorial Park cemetery in Cypress. The alignment turns west on Orange Avenue and extends westward until Bloomfield Avenue From there, the alignment continues south, then turns west on Cerritos Avenue. It then turns south on Chestnut Street, west on Sausalito Street, and south on Oak Street. From there, the pipeline turns east on Katella Avenue and then south on Los Alamitos Boulevard. The alignment continues on Los Alamitos Boulevard, which eventually transitions into Seal Beach Boulevard. From there, the alignment heads southwest along Old Ranch Parkway to end at the Westside Pump Station in Rossmoor.

The Westside Relief Interceptor is 32,100 feet long and includes pipes that are 15 to 39 inches wide. The alignment begins in the City of La Palma at the intersection of Crescent Avenue and Moody Street. The alignment runs southward on Moody Street and turns west on Orange Avenue. It extends until Denni Street, where it turns southward toward Katella Avenue to turn west. The alignment then turns south on Los Alamitos Boulevard to connect to the Westside Pump Station.

The Seal Beach Interceptor is constructed of 51-inch diameter pipelines extending for a length of approximately 1.25 miles. The north end of the Seal Beach Interceptor starts at a point just south of the Westside Pump Station and continues south in Beverly Manor Road until it merges with Seal Beach Boulevard. The pipeline continues along Seal Beach Boulevard until it reaches the Seal Beach Pump Station located at the intersection of Seal Beach Boulevard and Westminster Boulevard.

The Project site is located in a warm Mediterranean climate (*Csa*) in the Köppen climate classification, characterized by warm dry summers and cool wet winters. The Project area is located in northern Orange County, immediately south of the LA County borderline. The area encompassing the Project ROW is completely developed and consists primarily of residential and commercial neighborhoods.

Although developed, the landscape still retains some natural botanical and faunal species characteristic of the Walnut Woodland and Coastal Sage Scrub plant communities native to this region of Southern California. Major water tributaries include the San Gabriel River, one mile to the west, and Coyote Creek, 0.1 mile to the northwest of the general Project area. The closest distance from the Westside Pump Station to the Pacific coast to the southwest is three miles. Elevation is 43 feet above sea level at the north end of the Project area and 13 ft above sea level at the south end of the Project area.

4.0 REGULATORY FRAMEWORK

The Project is undertaken in compliance with regulatory standards set forth by the National Historic Preservation Act (NHPA), the California Environmental Quality Act (CEQA), the California Public Resources Code (CPR), the California Health and Safety Code, and the Orange County General Plan.

4.1 NATIONAL HISTORIC PRESERVATION ACT

Section 106 of the National Historic Preservation Act (NHPA) requires that, prior to a project undertaking, a federal agency, or those they fund or permit, must take into account the effects of the undertaking on historic properties within the Project area and afford the Advisory Council on Historic Preservation (ACHP) an opportunity to comment on the potential effects of the undertaking and determine if cultural resources that may be affected are significant.

Cultural resources significance is evaluated in terms of eligibility for listing in the National Register of Historic Places (NRHP). This section addresses the historical significance of affected properties with reference to the NRHP eligibility criteria. National Register criteria for evaluation at 36 CFR §60.4 state that "the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
B) that are associated with the lives of persons significant in our past; or
C) that embody the distinctive characteristics of a type, period, or method of construction,
D) or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or that have yielded, or may be likely to yield, information important in prehistory or history."

4.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT

Proposed Project plans are subject to the California Environmental Quality Act (CEQA) as it pertains to cultural resources, and lead agencies or Project proponents, such as the OCSD, are required to comply with the CEQA Statute and Guidelines (as amended through 2015) by determining if cultural resources impacted by project activities are "historically significant" and whether project activities will have an adverse effect on these resources (CCR, § 15064.5[b]).

A cultural resource is considered "historically significant" if the resource is 50 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets the requirements for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14 CCR, § 15064.5):

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important in our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic value; or,
4) Has yielded, or may be likely to yield, information important in prehistory or history.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the NRHP and those formally Determined Eligible for the NRHP.
- California Registered Historical Landmarks from No. 770 onward.
- Those California Points of Historical Interest that have been evaluated by the Office of Historic Preservation and have been recommended to the State Historical Commission for inclusion on the CRHR.

Other resources that may be nominated to the CRHR include:

- Historical resources with a significance rating of Category 3 through 5 (Those properties identified as eligible for listing in the NRHP, the CRHR, and/or a local jurisdiction register).
- Individual historical resources.
- Historical resources contributing to historic districts.
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

The fact that a resource is not listed in, or determined to be eligible for listing in the CRHR, or is not included in a local register of historical resources, does not preclude a lead agency from determining that the resource may be a historical resource.

According to Appendix G of the CEQA Guidelines, a project would normally have a significant effect on the environment if the project would:

- Cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
- Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5;
- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;
- Disturb any human remains, including those interred outside of formal cemeteries.

In addition, CEQA Guidelines Section 15064.5(e) requires that excavation activities be stopped whenever human remains are uncovered and that the county coroner be called in to assess the remains. If the county coroner determines that the remains are those of Native Americans, the Native American Heritage Commission (NAHC) must be contacted within 24 hours. At that time, the lead agency must consult with the appropriate Native Americans, if any, as identified by the NAHC. Section 15064.5 directs the lead agency (or project proponent), under certain circumstances, to develop an agreement with the Native Americans for the treatment and disposition of the remains. The historical significance of the artifacts discovered during monitoring of Project activities will be determined based on these criteria set by the NHPA and CEQA.

4.3 CALIFORNIA PUBLIC RESOURCES CODE

Archaeological, paleontological, and historical sites are protected pursuant to policies and regulations enumerated under the California Public Resources Code (CPR). The following CPR Sections apply to activities related to this Project:

- California Public Resources Code Sections 5020–5029.5 continue the former Historical Landmarks Advisory Committee as the State Historical Resources Commission. The commission oversees the administration of the California Register of Historical Resources and is responsible for the designation of State Historical Landmarks and Historical Points of Interest.
- California Public Resources Code Sections 5079–5079.65 define the functions and duties of the Office of Historic Preservation (OHP). The OHP is responsible for the administration of federally and state mandated historic preservation programs in California and the California Heritage Fund.
- California Public Resources Code Sections 5097.9–5097.991 provide protection to Native American historical and cultural resources and sacred sites and identify the powers and duties of the Native American Heritage Commission (NAHC). It also requires notification to descendants of discoveries of Native American human remains and provides for treatment and disposition of human remains and associated grave goods.

4.4 CALIFORNIA HEALTH AND SAFETY CODE

The California Health and Safety Code Section 7050.5(b) specifies protocol when human remains are discovered. Specifically, burials or human remains found either inside or outside a known cemetery are not to be disturbed or removed unless by authority of law, and the area of a discovery of human remains should remain undisturbed until a County coroner is notified and has examined the remains prior to determining the appropriate course of action.

4.5 ORANGE COUNTY GUIDELINES

The Orange County General Plan (2014) Resources Element contains explicit guidelines for cultural resources. Additionally, Orange County has a list of registered archaeologists qualified to work within the County. PSI Archaeologist Michael Kay is listed as a qualified archaeologist in Orange County. Two goals and four objectives address cultural resources.

Cultural Resources Goal 1 requires the County to raise the awareness and appreciation of Orange County's cultural and historic heritage. To achieve this, Objective 1.1 requires that the County facilitate and participate in activities that inform people about the social, cultural, economic, and scientific values of Orange County's heritage. Objective 1.2 requires that the County work through the Orange County Historical Commission in the areas of history, paleontology, archaeology, and historical preservation.

Goal 2 states that the County shall encourage, through a resource management effort, the preservation of the county's cultural and historic heritage. Objective 2.1 states that the County shall promote the preservation and use of buildings, sites, structures, objects, and districts of importance in Orange County through the administration of planning, environmental, and resource management programs. Objective 2.2 requires that the County take all reasonable and proper steps

to achieve the preservation of archaeological and paleontological remains, or their recovery and analysis, to preserve cultural, scientific, and educational values. The following policies addressing archaeological, paleontological, and historical resources shall be implemented at appropriate stage(s) of planning, coordinated with the processing of a project application, as follows:

- Identification of resources shall be completed at the earliest stage of project planning and review, such as general plan amendment or zone change.
- Evaluation of resources shall be completed at intermediate stages of project planning and review, such as site plan review, subdivision map approval, or at an earlier stage of project review.
- Final preservation actions shall be completed at the final stages of project planning and review, such as grading, demolition, or at an earlier stage of project review.

5.0 CULTURAL BACKGROUND

The Project site is located in an area with extensive cultural background. A review of the prehistory, history, and ethnography of the area provides the context for historical significance, and highlights the purpose of archaeological investigations and monitoring programs as they relate to the Project.

5.1 PREHISTORIC BACKGROUND

Humans have lived in the region of southern California for at least 10,000 years, and several chronologies have been proposed to divide different periods of habitation and development. The most commonly used chronology (Wallace 1955) divides this time span into the Early Period (10,000 BP to 8000 BP), the Milling Stone Period (8000 BP to 3000 BP), the Intermediate Period (3000 BP to AD 1000), the Late Prehistoric Period (AD 1000 to 1770), and the Historic Period (1770 to present). Different patterns and types of material culture represent each of these periods.

Large projectile points from the Early Period indicate subsistence on large animals. The diet probably also included smaller game and harvested plants. Sites representing this period have been found mostly inland at prehistoric lakebeds (*e.g.* China Lake, Tulare Lake).

The Milling Stone Period, as its name suggests, is characterized by milling stones and manos used in the preparation of plant- and seed-based foods. Subsistence on terrestrial game supplemented the diet of people during this time, but did not include coastal resources (Wallace 1978:28).

During the Intermediate Period, subsistence expanded to marine resources and a greater diversity of plant foods. Tools used during this period included mortars and pestles to process plant-based foods (Wallace 1978:30).

During the Late Prehistoric Period, the Tongva (Gabrieleño), Acjachemen (Juaneño), and Payómkawichum (Luiseño) lived throughout much of the southern California coast extending from present-day southern Los Angeles County to northern San Diego County. Villages among these groups were permanent to semi-permanent, with seasonal camps, and comprised a fairly complex trade network throughout the coast, inland, and the Channel Islands.

The Historic Period began with Spanish exploration and settlement in California, and characterized by changing governments in the following centuries. Warfare over the control of Californian was highlighted by significant events that included Mexican independence and the Mexican-American War, in the latter of which the United States gained control of former Spanish and Mexican territories in the West. These periods witnessed the decimation of native peoples throughout southern California through disease, loss of their territories, incorporation into the mission system, and physical conflict. While some of the native people survived, many experienced great loss of culture and tradition despite efforts to keep them prospering. Many of their cultural traditions are reflected in the artifacts found at archaeological sites to this day, and continue to be passed to subsequent generations.

5.2 HISTORICAL BACKGROUND

Europeans first sailed up the coast of California in 1542 as part of a Spanish exploration expedition led by the Portuguese captain Juan Rodriguez Cabrillo. Spain would not resume in-depth exploration and settlement of the region until much later, when Russian and French encroachment threatened Spain's interests in the territories known as Alta California (Upper California). The return of Spanish presence in California was marked by the 1769 expedition led by Captain Gaspar de Portola (Treutlein 1968:291). Shortly thereafter, Spain began to establish a system of pueblos, presidios, ranchos, and missions along the California coast to bolster Spanish settlement and presence. The Spanish Franciscan missionaries established a system of 21 missions along the California coast and incorporated much of the Native American population during the process, leading to the decline of Native populations and increasingly hostile relationships between the Europeans and the Native Americans.

The ranchos were a Spanish (and later Mexican) concession-granting system that awarded many Spanish military officers large tracts of land for settlement and raising livestock in support of and alongside the pueblos, presidios, and missions. The entire Project area is located in a part of what was once Rancho Los Nietos, which was established in 1784 and given to a retired Spanish army soldier and Portola Expedition member, Manuel Nieto. The Spanish Governor Pedro Fages granted Nieto 158,363 acres (Baker 1914). This area of land given to Manuel Nieto was located where the southern border of Los Angeles County and northern Orange County join today, and includes the cities of Anaheim, Artesia, Buena Park, Cerritos, Cypress, Downey, Fullerton, Garden Grove, Huntington Beach, La Palma, Lakewood, Long Beach, Los Alamitos, Naples, Norwalk, Santa Fe Springs, Seal Beach, Sunset Beach, and Whittier (Greene 2015).

After Nieto's death in 1803, his heirs inherited the land. In 1834, the Mexican Government gained control of the land and agreed to divide up Rancho Los Nietos evenly among Nieto's heirs. Following cession of Mexican-owned territories in California to the United States as a result of the Mexican-American War (1846-1848), the 1848 Treaty of Guadalupe Hidalgo provided land grants under the previous government. Following California statehood in 1850, the Land Act of 1851 required that land claims had to be filed with the Public Land Commission.

Seven patents were issued to the Nieto heirs for portions of the rancho, which was divided up into the smaller ranchos of Los Cerritos, Los Coyotes, Las Bolsas, Los Alamitos, Santa Gertrudes

(Baker 1914), and the still-unlocated Palo Alto. During the 19th century and into the 20th century, the cities and communities within the Project area -- Anaheim, Buena Park, Cypress, La Palma, Los Alamitos, Rossmoor, and Seal Beach -- began to form their identities within the greater southern California area. A brief history of each city and community encompassing the Project area is presented.

5.2.1 Local History: Anaheim

Anaheim was first founded in 1857 by 50 German-Americans from San Francisco who were seeking productive land to cultivate grapes (Dickson 1919). Their background in mechanics and carpentry also helped influence the beginning of the town center, with the first house built in 1857; other buildings, including a school and a hotel, were completed by 1870. Anaheim was the largest wine producer California for 25 years, until an 1884 spread of Pierce's disease halted grape production. Other crops such as walnuts, lemons, and oranges helped continue agricultural production for Anaheim, and led to the Los Angeles-Orange County region connecting to the continental railroad network in 1887.

For much of the first half of the 19th century, Anaheim was a large rural community inhabited by vineyard and orange growers. These landowners banded together to generate new ideas concerning irrigation techniques and business undertakings to help Anaheim thrive. The business of preparing for a concrete location was pushed forward vigorously at a daily expense of $216 for the employed, including 88 men, 10 women, 84 horses, 7 plows and 17 wagons (Grimshaw 1931).

From 1924-1925, the Klu Klux Klan had a strong influence within Anaheim, specifically the Anaheim City Council. On the other side were German Americans who were long-standing businessmen and considered the civic elite. Many individuals of Anaheim joined the Klan due to their political and civic activism. This led to the Klansmen winning the election in April 1924; however, their time in office was short-lived due to bribery allegations. One year later, the Klan's opponents took back control of the local government, leading to the Klan's large departure from Anaheim.

In 1954, Anaheim's rural community disappeared with the construction of Disneyland. The theme park was completed in 1955 and has become one of the world's most visited tourist attractions. Hotels, motels, and residential districts started to quickly spread soon after the park was open to the public, shaping Anaheim into what it is today.

5.2.2 Local History: Buena Park

The area of Buena Park, then located within the properties of Rancho Los Coyotes, came under the control of the United States in 1848 after the Mexican-American War. The connections to the transcontinental railroad in 1869 and Los Angeles in 1875 allowed the area of Buena Park to expand. In 1887, James A. Whitaker, a grocer from Chicago, founded the city of Buena Park after he purchased the land from major landowner Abel Stearns and was convinced by railway officials to use the land for a new town as opposed to his original plan for a cattle ranch. Thereafter, the Lily Creamery started operations in Buena Park in 1889. With the exception of a few wineries, the creamery was the first recognizable industry in the city (City of Buena Park 2015). Buena Park was incorporated in 1953, and is now a residential suburb and commercial hub.

5.2.3 Local History: Cypress

Much like Buena Park, Cypress was originally a part of the neighboring area, known as Ranchos Los Alamitos. Many of the properties of Ranchos Los Alamitos, including the areas of Cypress and Buena Park, were sold as ranch land to Abel Stearns. However, a great flood in 1861 drowned many cattle, and a long subsequent drought killed thousands more livestock and forced ranchers to borrow money at high interest rates. Shortly afterward, a group of investors known as the Robinson Trust acquired the land and ventured their holdings into a vast land speculation business acting as sales agents for subdivisions. This new business strategy helped Abel Stearns liquidate his debts and amass sizable assets before his death in 1871 (City of Cypress 2015).

Cypress's previous names included Dairy City and Waterville, the latter of which was briefly used due to the many artesian wells in the area. The area officially became Dairy City in 1956 after dairy farmers voted to ward off potential developers and preserve their dairies. After 1945, land values in Cypress increased, leading developers to purchase land and gradually retire the dairy farms. In 1957, residents decided to change the name of the city to Cypress. The developments progressively grew in the 1960's, and by the 1970's, no dairy farms remained. In 1958, Hubert Eaton, famous for the Memorial Park Movement in cemetery landscape designs, built the Forest Lawn Memorial Park, located on present-day Lincoln Avenue.

5.2.4 Local History: La Palma

Similar to Cypress, La Palma had its start in the dairy industry and was named Dairyland in 1955 to try to protect the dairy farms from developers. The residents zoned their city to exclude housing developments, and continued to cultivate cows, chickens, and strawberries. There were 18 dairies dotting an area of 1.76 square miles during this time period (City of La Palma 2015). By the mid-1960's, Dairyland farmers decided their land had become too valuable to remain wholly agricultural and changed the city’s name to La Palma in 1964. They drafted a master plan with well-defined residential, commercial, and industrial areas open for development (Orange County 2014).

5.2.5 Local History: Los Alamitos

After the Mexican-American War, John Bixby, his cousins, and banker I.W. Hellman pulled their finances together in order to purchase the lands in present-day Los Alamitos. In 1888, Bixby’s death paved the way for his cousins to create the Bixby Land Company. The land boom during the 1880's and the crash that followed during the 1890's left the area with substantial land, but little money. The company turned to the production of sugar beets, which had been recently practiced in Northern California. They turned to Montana silver baron William A. Clark to supply the funding and E. A. Dyer to provide the experience to build a new sugar beet factory on the newly-acquired land. The area of sugar beet production and the surrounding streets and homes came to be known as Los Alamitos.

By 1921, due to a slowing economy and a massive insect infestation, sugar beet production in Los Alamitos significantly dropped in value, leading to the end of the industry. However, this did not impair the town, and Los Alamitos kept thriving as a whole. Fred Bixby, the son of the original purchaser John Bixby, decided to transform the land into an area to fatten cattle before sending

them to be slaughtered. He also relied on successive waves of workers from the U.S., Europe, China, and Japan to cultivate fields and raise livestock, and in the twentieth century depended on labor from Mexico as well as Belgian tenants and Japanese lease farmers (Ranchos Los Alamitos 2015.)

Before and during WWII, Los Alamitos became a major center for the aircraft industry. The descendants of William A. Clark decided to build an aircraft plant, and the Navy wanted the level ground south of Los Alamitos in order to build a training field. This outpouring in the aircraft industry provided an abundance of jobs and helped the growth of the city. After the war, Los Alamitos became the home of many former military personnel, and remained largely unchanged until 1956, when the neighboring town of Rossmoor was created. Rossmoor, although not officially a part of Los Alamitos, has become affiliated with it.

5.2.6 Local History: Rossmoor

The unincorporated community of Rossmoor was built from 1955 to 1961 by architect Ross W. Cortese, who had designed many essential buildings throughout Los Alamitos, Anaheim, Seal Beach, and Long Beach. Rossmoor is somewhat isolated, due to the massive red brick wall that surrounds the entire community, and consists of 3,430 single-family homes and one condominium complex (Strawther 2015).

5.2.7 Local History: Seal Beach

The area of Seal Beach was known as Anaheim Landing before the 20th century. In 1867, seeking a port to load their goods, the Burghers, one of the German-American families who settled in Anaheim, turned to Anaheim Landing, near the site of the Seal Beach Naval Weapons Station. During that time, the area was a seaside recreation area and dock for the city of Anaheim. It also became an area of thriving business as it became a regular stop for the coastal steamers (the *Senator*, *Commodore*, *Pacific* and *Orizaba*, to name a few) that plied the ports from San Francisco to San Diego. In addition, schooners imported lumber from Eureka and exported local goods, including corn, rye, barley and wool from the San Joaquin and Cerritos Ranchos run by the Bixby families (Strawther 2014). By the 20th century the area was known as Bay City, a contentious name due to the fact that there was already a Bay City located in Northern California. In 1915, the town chose the name Seal Beach and became a prime location for recreation. Shortly afterward, it developed a popular beach-side amusement park, long before the construction of Disneyland.

During WWII, Seal Beach was used for loading, unloading, and storing of ammunition for the Pacific Fleet, under the designation “United States Naval Weapons Station – Seal Beach”, and served as the primary source of munitions for the Pacific Fleet throughout the war.

5.3 ETHNOGRAPHY: TONGVA

The Project area encompasses lands that were once inhabited by the Tongva, also known as the Gabrieleños. Much of the review of the Tongva presented here is based on William McCawley’s book, *The First Angelinos* (1996). The Tongva are an Uto-Aztecan (formerly termed “Shoshonean”) group that likely entered the Los Angeles Basin as recently as 1500 B.P. from the southern Great Basin or interior California deserts. However, it is also possible that they migrated in successive waves over a longer period of time beginning around 4000 B.P. It has been proposed

that the Uto-Aztecan speakers displaced local Hokan occupants of the southern coast (Kroeber 1925:578–580), as Hokan speakers in the area are represented by the Chumash to the north and the Diegueño to the South.

Before the Spanish occupation, the Tongva lived in an area of more than 1,500 square miles that included the watersheds of the Los Angeles River, San Gabriel River, Santa Ana River, and Rio Hondo, as well as the southern Channel Islands. There were at least 50 residential communities, or villages, with 50 to 150 individuals. Each community consisted of one or more lineages associated with a permanent territory. Each territory was represented by a permanent central settlement, with associated hunting, fishing, gathering, and ritual areas. A typical settlement would have had a variety of structures used for daily living, recreation, and rituals. In the larger communities, the layout was characterized by a ritualistic or sacred enclosure that was encircled by the residences of the chief and community leaders, around which were the smaller homes of the rest of the community. Sweathouses, cemeteries, and clearings for dancing and playing were also common at larger settlements (McCawley 1996:32–33).

The Tongva diet made use of many surrounding resources, including forest, water, and mountain animals. These included mule deer, pronghorn, rabbits, small rodents, freshwater and marine fish and shellfish, sea mammals, snakes, lizards, insects, quail and mountain sheep. Botanical resources included native grass seeds, pine nuts, acorns, berries, and fresh greens and shoots. Food reserves were managed by the chief, although families were also known to keep aside rations for when resources were less abundant. A complex trade network among themselves and their neighbors made the Tongva among the most materially wealthy of California's native groups (McCawley 1996:141).

Cultural expressions included beads, baskets, bone and stone tools and weapons, shell ornaments, wooden bowls and paddles, and steatite ornament and cooking vessels (Blackburn 1963). These items were traded frequently, especially with the Chumash, who often exchanged olivella-shell beads as currency for Tongva goods.

As with other Native American groups, the settlement of Europeans in California brought many conflicts and diseases to the Tongva as the Spanish sought to claim the lands as their own, and in the process incorporated Native American groups into the mission system. As a result of this and subsequent historical events, including the takeover of indigenous territories under Mexican and then American rule and the displacement of Native populations, the Tongva people, along with others, saw their populations and cultural traditions drastically decimated. Today, the Tongva continue their traditions in Southern California, with a population of approximately 2,000 individuals.

6.0 NATIVE AMERICAN CONSULTATION

Pursuant to SB 18 and AB 52, PSI has been tasked with consulting the Native American Heritage Commission and appropriate Native American representatives in regard to known sacred sites or features within the Project area. Consultation is currently pending and will be detailed in an addendum once all appropriate responses from recognized tribes have been received.

7.0 RECORDS SEARCH

Barbara Webster, M.S., conducted a records search at the South Central Coastal Information Center (SCCIC) on June 9, 2015 and October 7, 2015. The records search surveyed previous investigations, documented resources, and known historical listings and properties within a 1/8-mile radius of the Project area and within the Project alignment itself. The search indicated that 46 previous studies have been conducted within a 1/8-mile radius of the Project location. These studies resulted in ten previously documented cultural resources within 1/8 mile and two within the Project boundaries. A summary of the findings is detailed in Table 2.

Table 2. PREVIOUSLY DOCUMENTED RESOURCES WITHIN 1/8 MILE OF THE PROJECT AREA.

Resource Number	Description	First Record
P-30-001352	Bixby Ranch Site: First recorded as a disturbed prehistoric shell midden, but later found to be an introduced secondary deposit of shell material for development-associated fill	Van Horn, David M. 1979. *Archaeological Survey Report: A 18-Acre Parcel Located at the Intersection of Seal Beach Blvd. and the San Diego Freeway Near Seal Beach in the County of Orange*. Archaeological Associates, Ltd.
P-30-001502	Prehistoric scatter comprising bone, shell, stone tools, and fragments of human bones, believed to have been disturbed by the construction of the Orange County Flood Control Channel	Case, Robert P., and Richard L. Carrico. *Cultural Resources Inventory and Survey Report for the Weapons Support Facility (WPNSUPPFAC), Seal Beach, California*. Mooney and Associates, San Diego. Prepared for Southwest Division, Naval Facilities Engineering Command, San Diego.
P-30-176630	Railroad track alignment of the Southern Pacific and Union Railroads	Ashkar, Shahira. 1999. *Cultural Resources Inventory Report for Williams Communications, Inc. Proposed Optic Cable System Installation Project, Los Angeles to Anaheim, Los Angeles and Orange Counties*. Jones and Stokes Associates, Inc. Submitted to Williams Communications, Inc.
P-30-176752	Parasol Restaurant – 1967 Googie style restaurant in the shape of a parasol, now housing a Panera Bread	Dolan, C. and J. Hirsch 2004. *Historical Evaluation and Technical Report Parasol Restaurant*. Prepared by EDAW, Inc. Submitted to the City of Seal Beach.

Resource Number	Description	First Record
P-30-176803	NASA Saturn S-II Historic District, comprising 21 buildings associated with NASA's Apollo/Saturn program that launched Apollo 11's moon landing	Bunse, Meta, and Theresa Rogers. 1999. NRHP Evaluations of Cold War Era Buildings and Structures, WPNSTA, Seal Beach. JRP Historical Consulting Services. Submitted to Southwest Division, Naval Facilities Engineering Command, San Diego.
P-30-177289	Two-story rectangular residential building, constructed in 1964, a contributor to the Leisure World historic district	Chasteen, Carrie. 2011. *Historic Property Survey Report San Diego Freeway (I-405) Improvement Project, SR-73 to I-605, Orange and Los Angeles Counties*. Parsons. Submitted to Caltrans.
P-30-177335	One-story Ranch residential building, built in 1960	Chasteen, Carrie. 2011. *Historic Property Survey Report San Diego Freeway (I-405) Improvement Project, SR-73 to I-605, Orange and Los Angeles Counties*. Parsons. Submitted to Caltrans.
P-30-177336	One-story Ranch residential building, built in 1960	Chasteen, Carrie. 2011. *Historic Property Survey Report San Diego Freeway (I-405) Improvement Project, SR-73 to I-605, Orange and Los Angeles Counties*. Parsons. Submitted to Caltrans.
P-30-177337	One-story Storybook Ranch residential building, built in 1960	Chasteen, Carrie. 2011. *Historic Property Survey Report San Diego Freeway (I-405) Improvement Project, SR-73 to I-605, Orange and Los Angeles Counties*. Parsons. Submitted to Caltrans.
P-30-177412	Oak Middle School, part of the Los Alamitos Unified School District, still in operation	Chasteen, Carrie. 2011. *Historic Property Survey Report San Diego Freeway (I-405) Improvement Project, SR-73 to I-605, Orange and Los Angeles Counties*. Parsons. Submitted to Caltrans.

There are two previously documented sites that intersect the Project ROW: P-30-001352 and P-30-001502. These sites still maintain potential for archaeological resources. One of these sites, P-30-001352, was described as a secondary marine shell deposit encompassing 10,000 square meters. The southern half of the site was destroyed by the construction of the I-405 highway, and the northern half has since been built over with a parking lot and corporate buildings. As the site's materials were reported to be introduced and have been disturbed since, the site has lost integrity and historical context, and is not eligible for any registers. The second site, P-30-001502, was first documented in 1999 as a scatter of artifacts, including shell, faunal bone, and stone tools, along with human bones. The site is reported to be adjacent to and east of the Seal Beach Interceptor alignment along Seal Beach Blvd, within the U.S. Naval Weapons Support Facilities, and was reported to have been disturbed by the development of the Orange County Flood Control Channel.

The westernmost boundary of the site is within the Project's rights-of-way, and the last investigation of this site in 2010 by URS archaeologists reported the presence of prehistoric archaeological materials.

8.0 FIELD SURVEY

8.1 METHODS

PSI Archaeologist Michael Kay, M.A., RPA, and PSI Architectural Historian Katie DeBiase, M.P.H., conducted a field survey of the Project area north of the Seal Beach Interceptor on July 25, 2015; a survey along the Seal Beach Interceptor was conducted by Michael Kay and Barbara Webster, M.S, on October 5, 2015. The surveys involved driving and walking along the entire Project alignment and conducting pedestrian surveys adjacent to historic-period buildings or known historic landmarks to assess the extent of impact by Project activities along the ROW. On July 25, 2015, the survey began with the Western Sub-Trunk alignment, from north to south, followed by a north-to-south survey of the Westside Relief Interceptor alignment. After reaching the south alignment on Old Ranch Parkway in Rossmoor, the survey followed the alignment of the Los Alamitos Sub-Trunk from its south end to its north end at La Palma Boulevard and Denni Street. On October 5, 2015, the survey covered the Seal Beach Interceptor and Pump House, from just south of the I-405 highway, along Seal Beach Boulevard, to end at the Pump House just northeast of the intersection of Seal Beach Boulevard and Westminster Boulevard. The surveys assessed ground surfaces, either exposed or developed, to determine the potential presence of cultural resources. Appropriate photographs and documentation were taken during the survey and are on file at the PSI office in Monrovia, California.

8.2 RESULTS

The field survey resulted in no discovery of prehistoric resources along or immediately adjacent to the Project ROW. However, the survey resulted in the discovery of one historical resource within the proposed Project area. The resource is the nearly 150-acre Forest Lawn Memorial Park (Forest Lawn) cemetery located at 4471 Lincoln Avenue in Cypress. Historical research indicates that the cemetery appears to have been built as early as 1958, with key buildings completed by 1961. Forest Lawn was open to the public in 1964. The on-site historical buildings contributing to the historical significance of Forest Lawn, such as the Church of Our Fathers, dedicated in 1961, appear to be well out of the vicinity of the Project alignment (Figure 5).

Although it appears that there will be no impact to the buildings or structures of Forest Lawn, the proposed Project alignment for the Los Alamitos Sub-Trunk along Guardian Drive is immediately adjacent to several hundred interment markers or memorial tablets (Figure 6). The memorial tablets on the east side of Guardian Drive, located in an area called "The Sheltering Trees", are less than two feet from the ROW, and their orientation indicates that the interments are parallel to the ROW (Figure 7). The tablets on the west side, located in the "Garden of Protection", are less than seven feet away from the ROW and appear to be perpendicular to the ROW (Figure 11). However, as the Project ROW appears to be within the eastern half of Guardian Drive, the tablets to the west of the ROW will not be impacted.

Aside from the interments adjacent to and east of the ROW of Guardian Drive, no other observed cultural resources appear to be within the Project alignment.

Figure 6. The Project ROW (in red) along Guardian Drive in Forest Lawn Memorial Park, Cypress.

Figure 7. Contributing historical elements within the Forest Lawn Memorial Park.

Figure 8. The Church of Our Fathers at Forest Lawn, Cypress. View to northwest. June 25, 2015.

Figure 9. View along the Project ROW on Guardian Drive at Forest Lawn. View toward north. June 25, 2015.

Figure 10. Memorial tablets and interments adjacent to the Project ROW on Guardian Drive, Forest Lawn. View to northeast. June 25, 2015.

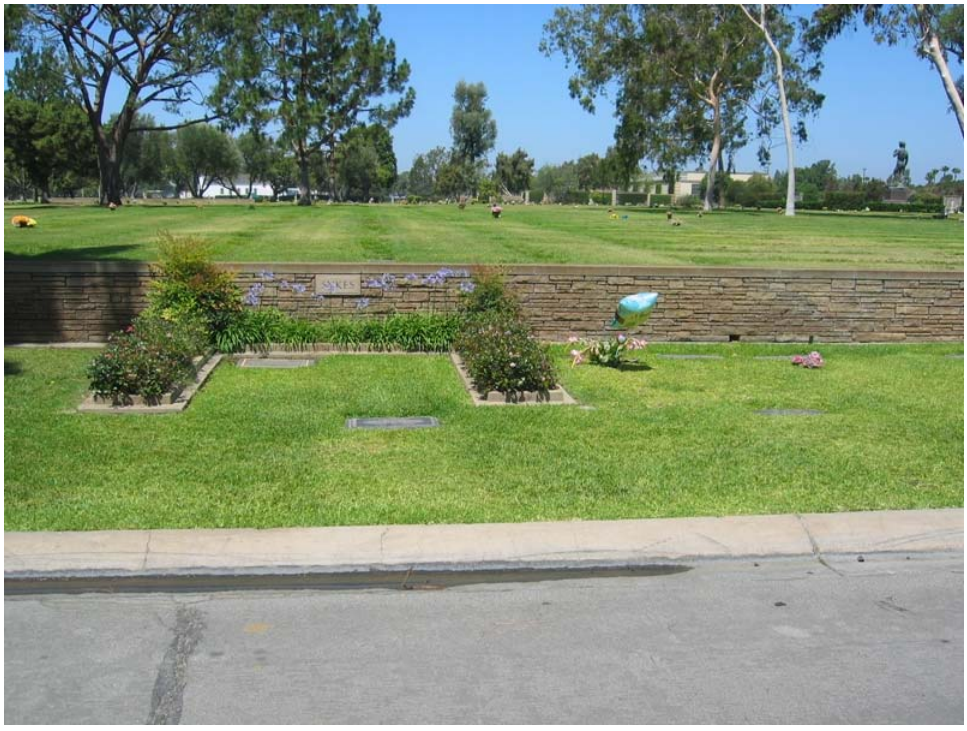

Figure 11. Memorial tablets and interments adjacent to the Project ROW on Guardian Drive, Forest Lawn. View to west. June 25, 2015.

Figure 12. Main mortuary building, view to north. June 25, 2015.

Figure 13. Ascension Mausoleum, with replica of John La Farge's "Ascension of Our Lord" mural in center, view to north. October 5, 2015.

9.0 DISCUSSION

9.1 SIGNIFICANCE EVALUATION

Approximately one half mile of the Los Alamitos Sub-Trunk alignment is located within a historical resource, the Forest Lawn Memorial Park in Cypress. Forest Lawn is a historic-period cemetery, and is eligible for the NRHP and CRHR as a historic district including the historical buildings of the Church of Our Fathers, the Ascension Mausoleum, the main mortuary building, and an associated maintenance building just east of the mortuary building.

As presented in Chapter 4 of this report, resources are eligible for listing on the NRHP if they meet the appropriate criteria. 36 CFR §60.4, states that "the quality of significance in American history, architecture, archeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association and

A) that are associated with events that have made a significant contribution to the broad patterns of our history; or
B) that are associated with the lives of persons significant in our past; or
C) that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction;
D) or that have yielded, or may be likely to yield, information important in prehistory or history."

In addition, a cultural resource is considered "historically significant" if the resource is 50 years old or older, possesses integrity of location, design, setting, materials, workmanship, feeling, and association, and meets the requirements for listing on the California Register of Historical Resources (CRHR) under any one of the following criteria (Title 14 CCR, § 15064.5):

1) Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2) Is associated with the lives of persons important in our past;
3) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or,
4) Has yielded, or may be likely to yield, information important in prehistory or history.

Forest Lawn Memorial Park is eligible for listing in the NRHP and CRHR under criterion C/3. The cemetery represents the work of master designer, Hubert Eaton, who transformed cemetery landscape design into the memorial park movement. The designed landscape of this memorial park, based on Eaton's "Builder's Creed" and within the context of memorial park innovation and evolution, contains the park-like landscaping of rolling hills, mature, manicured shade trees and shrubs, expansive green lawns, a quiet setting, and the creative use of sculptures, mosaics, stained glass, and paintings. Winding, loop roads meander through the memorial park allowing access to all areas, a feature that is drawn from post-WWII residential layouts that allowed for a slower pace of traffic, creating a bucolic feel. Based on the results of the survey, Forest Lawn at Cypress reflects those themes, particularly with the chapel known as the Church of Our Fathers, which is a replica

of the 1741 St. John's Church in Richmond, Virginia (also known as the "Patrick Henry" church), and the gigantic replica of John La Farge's "The Ascension of Our Lord". The mural comprises the center of the south façade of the Ascension Mausoleum, which is also one of the four original buildings of the cemetery. The main mortuary building and a facilities maintenance building, the latter of which houses equipment, vehicles, and other materials necessary for the upkeep of the park, complete the set of four original buildings that were on the premises when the cemetery first opened in 1964.

9.2 SIGNIFICANCE OF IMPACT TO CULTURAL RESOURCES

Based on the records search and the field survey conducted for the Project, activities associated with the Project may impact two previously documented cultural resources and one resource that was discovered during the field survey. The Project will have no impact on previously documented buildings or structures adjacent to the ROW, nor will it have an impact on any buildings that contribute to Forest Lawn's eligibility as a historic district.

The segment of the Project ROW-intersecting site P-30-001352 is anticipated to have low to moderate archaeological sensitivity, due to the nature of the resource's deposition and the extent of disturbance. The segment along the Seal Beach Interceptor alignment exhibits moderate to high archaeological sensitivity due to the proximity to site P-30-001502, which was reported to contain stone tools, shell, bones, and human remains that were discovered and collected in 1999 by Mooney and Associates (Case and Carrico 1999). Because the artifacts were found along the banks of the Flood Control Channel, site P-30-001502 is believed to have been subject to disturbance caused by the development of the Orange County Flood Control Channel. The proposed Project is expected to have less than significant impact with mitigation at site P-30-001502.

The Forest Lawn Memorial Park is eligible for listing as a historic district on the NRHP and CRHR through a formal evaluation conducted during this investigation. Impacts to contributing historical elements to the historic district are less than significant with mitigation measures to avoid these elements in place. The proposed Project activities within the ROW of Guardian Drive may significantly impact individual existing interments at Forest Lawn. Most of the interments along the east side of Guardian Drive are less than two feet from the ROW. The curbs on either side of the ROW define the edges of the open interment areas; these are known as the Garden of Protection to the west and the Sheltering Trees to the east. Impacts to interments in can be prevented, and therefore be reduced to less than significant, if mitigation measures are implemented and monitored.

10.0 CONCLUSIONS AND RECOMMENDATIONS

The records search and field survey for the Project have determined that Project activities will have less than significant potential impact to site P-30-001352, and less than significant impact with mitigation to P-30-001502. The Project has the potential to impact interments within the newly-identified Forest Lawn Memorial Park historic district; however, those impacts can be reduced to less than significant levels through adherence to the mitigation measures described below and outlined in Table 1 of the Executive Summary.

The field survey resulted in the discovery of one previously undocumented historical resource, the Forest Lawn Memorial Park in Cypress, which was determined to be within the Project area. After a preliminary review of its history, PSI has determined that Forest Lawn Cypress is eligible for listing on the NRHP and the CRHR as the work of a master builder that is important in National or State history. Based on this determination, PSI has determined that the proposed Project will have less than significant impact with mitigation to interments within the Forest Lawn Memorial Park historic district, and no significant impacts would occur to contributing elements (see Figure 7).

However, the Project may have potentially significant impact to known burials adjacent to a segment of the Project ROW. Hundreds of existing interments along a half-mile long segment of Guardian Drive in Forest Lawn are immediately adjacent to a segment of the Los Alamitos Sub-Trunk alignment. The proximity of dozens of the memorial tablets, which designate the locations of existing interments, to the east edge of the ROW along Guardian Drive is less than two feet. Impacts to known burials along this segment of the Project can be reduced to less than significant if mitigation measures are implemented. Specifically, Project activities should be limited to the ROW and should not cross the curbs, either at or below the surface, that divide the interment areas and the ROW. Mitigation measures may also include physical barriers, visual aids, and defined spatial buffers to provide appropriate distances between specific areas where Project activities are taking place and the interments in Forest Lawn. In addition, given the close proximity to known burials and interments in this area, cultural resources monitoring is strongly recommended for Project activities along the 0.5-mile segment of the Project ROW within the Forest Lawn Memorial Park to ensure that mitigation measures are followed.

Archaeological monitoring is recommended along the Seal Beach Interceptor alignment for the segment intersecting the previously documented prehistoric site, P-30-001502, as the western boundary of the site is reported to intersect the Project ROW. The area is sensitive for prehistoric cultural materials, so mitigation measures should include the treatment of such materials should they be discovered during the Project.

Given the loss of contextual integrity of introduced materials comprising the site, P-30-001352, which appears to have been fully compromised by the modern development, archaeological monitoring is currently not recommended for the area at the north end of the Seal Beach Interceptor alignment, south of the Westside Pump Station. However, mitigation measures should include a protocol to contact a professional archaeologist should cultural resources be encountered during Project activities in this area.

The absence of identified cultural resources in other areas of the Project alignment during the field survey does not preclude the possibility of unanticipated archaeological discoveries. Prior to the start of construction, a cultural resources monitoring plan should be prepared and implemented. The plan should include specific locations and Project activities requiring monitoring, duration of monitoring, and procedures to follow in the event of artifact discovery, as well as the collection and processing of materials recovered from discovery. Should any earthmoving activities uncover archaeological objects, features, or structures, the discovery shall remain in place and further earthmoving activities in the area should be diverted or halted until the Project archaeologist has had the opportunity to identify and evaluate the discovery, and to discuss the next course of action with the Principal Investigator and associated Project managers. If the discoveries involve human

remains, the County Coroner shall be contacted within 24 hours of discovery in compliance with California Health and Safety Code Section 7050.5(b). If the remains are found to be Native American, then the Most Likely Descendant(s) will be contacted. Once the recommended mitigation measures are implemented, activities associated with the Project are expected to have less than significant impacts.

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DRAFT

ENVIRONMENTAL IMPACT REPORT FOR

ORANGE COUNTY SANITATION DISTRICT

REHABILITATION OF WESTERN REGIONAL SEWERS

PROJECT NO. 3-64

APPENDIX D

HAZARDOUS MATERIALS TECHNICAL MEMO

OCTOBER 2016

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JACOBS

MEMO

TO:	Daisy Covarrubias, Sr. Staff Analyst Orange County Sanitation District	**DATE:**	5/16/2016
FROM:	Dana Ragusa		
SUBJECT:	Hazards Assessment for Rehabilitation of Western Regional Sewers Project (subject property)		
COPIES:			
ATTACHMENTS:	Figures 1 - 9; A – Envirosite Government Records Report		

Introduction

The subject property consists of the rehabilitation of Western Regional Pipelines, rehabilitates or reconstructs the entire length of the Orange Western Sub-trunk, Los Alamitos Sub-trunk, Westside Relief Interceptor, and Seal Beach Interceptor which are located in the western most portion of the Orange County Sanitation District (OCSD) service area (Figure 1).

Due to the size of the project, a site visit was not conducted at this time. Potential listed sites were identified through review of the Envirosite reports and records review as discussed below. In addition, since property acquisitions are not proposed at this time, interviews with adjacent property owners were not conducted.

Regulatory Records Review

Jacobs Engineering Group, Inc. (Jacobs) reviewed government records reports and historic aerials and topographic maps obtained from Envirosite Corporation in October 2015 (Envirosite 2015). Information contained in the reports and maps was used to identify potential hazardous material impacts to the subject property. Appendix A contains the summary of listed sites and the overview maps in the Envirosite government records report.

Due to the size of the subject property, a total of three government records reports were obtained from Envirosite Corporation for the Westside Relief Interceptor, Los Alamitos Sub-Trunk, the Seal Beach Interceptor, and the Orange Western Sub-Trunk (see Appendix A). Two reports were obtained for the Westside Relief Interceptor, Los Alamitos Sub-Trunk, and Seal Beach Interceptor that listed 330 and 445 sites, respectively, within the American Society for Testing and Materials (ASTM) 1527-13 standard search radius of up to one mile. Due to the property searches with these two reports, some sites overlap and are listed in both reports. One

report was obtained for the Orange Western Sub-Trunk that listed 200 sites within the ASTM 1527-13 standard search radius of up to one mile. Although numerous sites are listed within each report, the number of actual listed sites is lower since the same site could be listed in several different databases.

For this project, only property easements are proposed at this time, no property acquisitions are anticipated. In addition, the depth of construction for open-trench activities is anticipated to range from approximately 14 feet to 24 feet. Therefore, only sites within ¼ mile of the proposed project were evaluated further and discussed below. Figure 2 depicts all listed sites within ¼ mile of the proposed project. Sites listed in databases associated with permitting, no further action required, no release reported, etc. are not anticipated to impact the proposed project and are not discussed further. All listed sites within one mile of the proposed project are detailed in the government records reports in Appendix A.

Orange Western Sub-Trunk
Listed Sites
The following summarizes the status of the listed sites in the government records report for the Orange Western Sub-Trunk that could potentially impact the proposed project.

Leaking Underground Storage Tank Database
Of the 31 sites listed in the leaking underground storage tank (LUST) databases, three are open with active remedial activities. However, these sites are located over ¼ mile away from the proposed improvements and are not likely to impact the project. The other 28 sites have been closed with no further action (NFA) granted by the lead agency.

Industrial Cleanup Database
There is one site listed in the Industrial Cleanup database:

Anaheim West Plaza – This facility is located at 3150 W Lincoln Avenue. The proposed improvements near this site would only involve rehabilitation of the Orange Western Sub-Trunk. According to the Envirosite report, there have been no reported releases. Therefore, it's unlikely this site would impact the project. Additional information can be reviewed from Orange County.

Solid Waste Facility/Landfill Database
There is one site listed in the Solid Waste Facility/Landfill database:

Western Street Sweeper Transfer Station – This facility is located at 600 South Western Avenue as a permitted facility. According to Cal-Recycle, an inspection was conducted in September 2015 with no reported areas of concerns/violations.

Haznet and Hazwaste Databases
There are approximately 55 sites listed in the haznet and hazwaste databases that are located within ¼ mile of the proposed improvements. The haznet database includes hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters. The hazwaste database includes hazardous waste facilities. These databases identify transporters and/or generators of hazardous waste and not releases to the environment. Any spills that occur during transportation or releases found on site would be reported and discussed under separate databases. Therefore, these sites are not anticipated to impact the project. However, construction personnel should be trained to recognize signs of contamination where construction activities would take place adjacent to these sites.

Aboveground Storage Tanks and Underground Storage Tanks Databases

There are 28 listed sites in the state and county aboveground storage tanks (ASTs) and underground storage tanks (USTs) databases. There have been no reported violations or active violations for these sites. In addition, acquisition of these sites is not anticipated that would require removal of storage tanks. However, there are nine listed sites adjacent to the proposed improvements which are listed below. Precautions should be taken in these areas to avoid activities near storage tanks. In addition, construction personnel need to be trained to recognize signs of contamination such as odors, stained soils, etc.

- Meineke/Econo Lube – This facility is located at 3201 W Lincoln Avenue and also listed in the leaking underground storage tank (LUST) database as having a closed release event in 2013.
- HR Pro Auto Service Center (listed as Tyre Shack Service Center) – This facility is located at 3180 W Lincoln Avenue with no reported violations.
- Richard Hehr/D&E Properties (listed as vacant/Eric T Ericson) – This facility is located at 601 S Western Avenue and also listed in the LUST database as having a closed release event in 1995.
- AT&T (listed as Pacific Bell Communications) – This facility is located at 3502 W Orange Avenue with no reported violations.
- Under construction (listed as Cypress College Shell and Abed S Abdel Shehid) – This facility is located at 6001 Orange Avenue and also listed in the LUST database as having closed release events in 2004 and 2012.
- C MERV Smiths Exxon – This facility is located at 8495 Western Avenue with no reported violations.
- Resident (listed as Harry Takahama) – This facility is located at 3840 W Orange Avenue with no reported violations.
- Arco #5881 (listed as Thrifty Oil) – This facility is located at 9511 Valley View and also listed in the LUST database as having a closed release event in 2011 and 2013.
- Chevron (listed as Union Oil) – This facility is located at 9500 Valley View and also listed in the LUST database as having closed release events in 1985 and 2006.

Unmappable Sites

The Envirosite government records report identified 30 sites within the Orange Western Sub-Trunk as unmappable due to limited address information. Majority of these sites were unmappable due to the owner address searched instead of the physical address. Of the 30 sites reviewed, 21 sites were identified over one mile away and would not impact the proposed project. Six sites could not be located that are listed in the California Hazardous Material Incident Reporting System (CHMIRS) database for accidental hazardous material incidents releases or spills. These sites are listed by milepost and are assumed to have completed cleanup on site. Therefore, these sites are not anticipated to impact the proposed project. In addition, another site could not be located that is listed in the State Water Resources Control Board Regulated Facility Report (RFR) database which includes program type and permit status. This site would not impact the proposed project. Two sites were identified within one mile of the proposed project and listed in the Haznet database. This database includes hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters. Due to the distance these sites are located from the proposed project they are not anticipated to impact the proposed project.

Western Relief Interceptor, Los Alamitos Sub-Trunk, and Seal Beach Interceptor Listed Sites

The following summarizes the status of the listed sites in the government records report for the Western Relief Interceptor, Los Alamitos Sub-Trunk, and Seal Beach Interceptor that could impact the proposed project.

Corracts Database
There are three sites (Safety Kleen is listed twice) listed in the CORRACTS database:

Safety Kleen Corporation – This facility is located at 3876 Florista Street, approximately 500 feet north from the Westside Relief Interceptor. The Los Alamitos Medical Center currently owns the site and is located in the northwest corner of the intersection of Katella Avenue and Bloomfield Street. The facility consists of a hospital, various medical arts buildings, a physical plant, and several asphalt parking lots.

Although no documented spills have been reported for this site, previous investigations indicate soil and groundwater has been impacted by releases from historic operations on site. The former service center was located in a multi-unit building on the south side of Florista Street between Kyle and Bloomfield Streets. Safety Kleen formerly occupied the eastern portion of the building. Other businesses formerly occupied other portions of the site in the middle and western units.

From 1977 to 1991, Safety Kleen operated as a service center for distribution of mineral spirits, and storage of spent mineral spirits, other spent part-cleaning solvents, spent dry cleaning waste, and automobile paint waste. Prior to shipping the solvents to recycling centers for reclamation, used solvents were stored in an underground storage tank. In 1991, Safety Kleen ceased operations and submitted a Closure Plan. In 1992, DTSC conducted a Resource Conservation and Recovery Act (RCRA) Facility Assessment (RFA) which concluded that further investigation was needed to determine the nature and extent of contamination in three solid waste management units (SWMUs) and two areas of concern (AOCs). In 1994, closure and assessment activities (including removal of the UST) were completed and in 1996 Safety Kleen entered into a Corrective Action Consent Agreement (CACA). Per the RFA, groundwater samples were collected quarterly at the site and were found to have elevated concentrations of vinyl chloride in groundwater. DTSC requested additional sampling to characterize the nature and extent of soil gas contamination. Samples were collected in March 2003 and DTSC concluded that vinyl chloride concentrations in soil gas were at levels that required additional investigation of indoor air concentrations to determine whether indoor air concentrations of volatile organic compounds (VOCs) were above health-based levels. Results from additional investigations indicated that vinyl chloride was not detected in any sample and VOC concentrations did not exceed health based standards. However, based on the 2004 quarterly progress reports, DTSC requested that Safety Kleen further evaluate the extent of groundwater contamination. In 2006, Tenet Healthcare Corporation, demolished the former Safety Kleen Service Center structure. However, prior to demolition activities, Tenet Healthcare had to submit a Work Plan to describe the environmental monitoring program and the contingent sampling plan for the proposed building demolition since the site was subject to corrective action at the time. The sampling results indicated that concentrations were generally decreasing or remaining stable. In 2012, a reimbursement agreement was signed between DTSC and Tenet Health Systems Hospital (Tenet). In 2013, a soil vapor mitigation workplan was submitted and approved by DTSC. A quarterly monitoring report and human health risk assessment were conducted in 2014. Shallow groundwater was observed on site approximately 10 feet below

ground surface and flows in a southwesterly direction. Results from the assessments indicated that risks and hazards for onsite commercial worker and gardener receptors do not exceed levels of concern. Therefore, no further active remediation was recommended. However, DTSC has not officially closed the active cases.

Naval Weapons Station Seal Beach –This facility is located southeast of Seal Beach Boulevard and Westminster Avenue and includes approximately 5,000 acres of land. A portion of the site is located adjacent to the Seal Beach Interceptor. The Seal Beach Naval Weapons Station is a weapons and ammunition storage, disbursing, and reconditioning base for the United States Navy. Past operations at the station have included aerospace manufacturing/maintenance, fire training areas, firing range, landfill for construction, oil/water separators, open burn/open detonation, weapons research, and industrial treatment facility that have contributed to contamination on site. Numerous investigations have been conducted on the site which has identified the following contaminants, acids, alkalines, explosives, waste oils, polychlorinated biphenyls (PCBs), fuels, solvents, paint thinners, asbestos, mercury, VOCs, heavy metals, oil drilling fluids, and paint wastes. In 1985, the Navy conducted an Initial Assessment Study. In 1987, a Work Plan was prepared to collect samples on site which was later revised in December 1990. From the sampling results, the following suspected areas of contamination include: waste water settling and evaporation ponds, explosives burning areas, station land-fills, sandblast grit disposal area, pesticide storage trailer, NASA Island, diesel fuel spill area, primer salvage yard areas, mercury spill areas, disposal pit, oil island, foam testing fire training area, solvent disposal areas, and former waste fuel storage area.

Due to the size of the site and the numerous areas that contain contamination, the site was divided into separate operating units (OUs). IR Site 70 is located within OU8 and is approximately 40 acres. However, the contamination plume extends beyond the site boundaries. The site is known as the Research, Testing, and Evaluation area, consisting of multistory office and production buildings, asphalt-paved parking area, an assortment of aboveground tanks and attendant above- and below-ground piping distribution systems, and several concrete-lined sumps. From 1962 to 1973, NASA utilized the area for the design and manufacture of the Saturn II launch vehicle. Groundwater is impacted due to past activities. In 1993, a preliminary assessment was conducted and since 2008, the extent of contamination was defined through groundwater monitoring and sampling. According to the 2014 annual monitoring report, the groundwater flow was generally to the southeast with relatively low gradients, consistent with historical data and away from the proposed project. According to both the 2014 annual monitoring report and the 2015 semiannual monitoring report, concentrations on site are relatively stable, with some samples decreasing and others increasing. Additional monitoring and remediation was recommended for this area.

Cortese Database

There is one site listed in the Cortese database, Naval Weapons Station Seal Beach, which is discussed above.

Leaking Underground Storage Tank Database

Of the 80 sites listed in the LUST databases, eleven are open with active remedial activities and are discussed below. The other 68 sites have been closed with NFA granted by the lead agency.

Safety Kleen Corporation – This facility is located at 3876 Florista Street and discussed above under CORRACTS.

John Phu & Vivian Lam – This facility is located at 22429 S Bloomfield Avenue. This site is currently occupied by a liquor store. According to the 2003 tank closure report, a hole was observed in the bottoms of the tanks during tank removal. Based on field observations at that time, it is likely an unauthorized release of petroleum occurred on site. Discoloration of soil was noted in the western portion of the site where the former USTs were located. Soil samples indicated a high concentration of benzene. Groundwater contamination was not confirmed. Additional subsurface investigation was recommended including possible groundwater sampling.

Former Mercury Rentals Inc. – This facility is located at 4664 Lincoln Avenue (south of Lincoln Avenue) less than ¼ mile east from the Los Alamitos Sub-Trunk off Denni Street and approximately ¼ mile west from the West Side Relief Interceptor off Moody Street. This site is listed in the LUST database. Prior to the 1960s, the site was undeveloped. During the early 1960s, Top Oil Station occupied this site and was closed in 1964. The site was then occupied by Mercury Rentals facility in the mid-1960s. According to the 2015 groundwater report, six USTs were historically present on site and used to store diesel fuel, gasoline, and possibly motor oil. Motor oil may also have been stored in ASTs on site. In 1985, the rental facility was demolished. The site was occupied by Hansen's from 1996 through 2004 with two USTs on site. The site was closed in 2004. Monitoring and remedial activities were conducted on site. In 2014, the State Water Resources Control Board (SWRCB) evaluated the site for closure under the Low Threat Closure Policy (LTCP). However, closure was denied due to presence of free product and product plume that exceeds 100 feet in length. On site, the depth to groundwater ranges from 7 feet to 10 feet with a shallow historic groundwater flow direction to the north to northeast, towards the proposed project. Remediation is on-going including a Phase II of the revised vapor intrusion Work Plan and to remove residual contaminants on site.

Hyatt Die Cast and Engineering – This facility is located at 4656 Lincoln Avenue (south of Lincoln Avenue) less than ¼ mile east from the Los Alamitos Sub-Trunk off Denni Street and approximately ¼ mile west from the West Side Relief Interceptor off Moody Street. This site is approximately 12 acres. In 1966, Hyatt Die Cast and Engineering operated on site to provide die castings for aerospace, electronics, and commercial applications. The site is listed in the LUST database as having two USTs that were used to store diesel and gasoline for delivery trucks. In 1992, the USTs were removed and samples were collected which identified contamination around the tanks. In 1993, monitoring of the site was initiated to determine the extent of contamination on site. According to the 2012 site investigation report, depth to groundwater on site ranges from approximately 4.5 feet to 7 feet with the groundwater flow direction primarily to the southwest, towards the proposed project. The 2015 quarterly report indicated elevated concentrations in the groundwater samples and continued monitoring of the site is on-going.

Parking lot (Former Shell Service Station/Shell Oil) – This facility is located at 4001 Ball Road, east of Bloomfield Street and the Los Alamitos Sub-Trunk and is listed in the LUST database. In 1986, an unauthorized release was reported following removal of four USTs. Remedial activities and monitoring of the site began shortly after the release was identified. The petroleum release affected the soil and shallow groundwater. In 1999, the existing service station, including the USTs, dispenser islands, and product piping were removed from the site. The site has been redeveloped and is currently a parking lot for a local grocery store. According to the 2015 groundwater monitoring report, hydrocarbons were detected in the soil and groundwater at the Goodyear Tire Center east of this site. In addition, the property to the west was a historic service station and the property to the south is an existing service station. Concentrations of benzene were detected in groundwater samples on the west side of the site. Landfill debris was also found in the subsurface along the western half of the site. The debris was observed during

monitoring well installation, but not during UST removal. The debris was found at depths ranging from 2 feet to 12 feet and was approximately 4 feet thick. The extent of the debris is unknown. Landfill debris was also found on the Goodyear Tire site during removal of a tank. Groundwater flow direction is primarily to the west, towards the proposed project, with an average groundwater elevation of approximately 19 feet. Historic monitoring data indicates concentrations in the samples are generally stable or decreasing over time.
76 #5792 (Former Tosco)— This facility is located at 4002 Ball Road, east of Bloomfield Street and the Los Alamitos Sub-Trunk. This site is listed in the LUST database as having two in-service USTs used to store gasoline, one in-service AST of propane, and one in-service AST of waste oil. Petroleum constituents were discovered during removal and replacement of USTs in 1997. Remedial activities have been conducted on site. The average depth to groundwater is approximately 9 feet with a groundwater flow direction towards the southwest, towards the proposed project. In January 2015, the owner requested closure per the low-threat underground storage tank case closure policy. In June 2015, the SWRCB recommended case closure and that the monitoring wells be destroyed and any waste piles, drums, debris, etc. be properly managed and removed from the site. In September 2015, a well destruction report was prepared documenting that the remaining 23 monitoring and remediation wells have been destroyed.

Circle K Store #2211205 (Former Mobil #18-GOT/Seal Beach Mobil Mart)– This facility is located at 12240 Seal Beach, east of Seal Beach Boulevard and the West Side Relief Interceptor and Los Alamitos Sub-Trunk. This site is listed in the LUST database as having three in-service USTs used to store gasoline, one in-service UST used to store diesel, and one in-service AST of propane. In 1989, three USTs were removed and relocated during site redesign of the service station. In 1993, case closure was granted by Orange County Health Care Agency (OCHCA). In 2001, facility upgrade activities were performed and another unauthorized release was reported. Groundwater monitoring wells were installed and monitored. Depth to groundwater ranges from approximately 13 feet to 14.5 feet with a groundwater flow direction towards the southwest, towards the proposed project. In 2015, case closure was denied due to concentrations above Low Threat Closure Policy criteria in groundwater west of the site. A remedial action plan was prepared to address the offsite contamination. Monitoring is on-going at this site.

Rossmoor Car Wash – This facility is located at 11031 Los Alamitos in the southwest corner of Katella Avenue and Los Alamitos Boulevard and adjacent to the Los Alamitos Sub-Trunk and West Side Relief Interceptor. This site is listed in the LUST database as having an unauthorized release reported in 1991. However, three USTs were not removed until 2003. Site assessments and preliminary remedial activities have been conducted on site. According to the 2015 groundwater monitoring report, the depth to groundwater ranges from approximately 10.5 feet to 13.5 feet and the groundwater flow is towards the southeast, towards the Los Alamitos Sub-Trunk and Westside Relief Interceptor. The northeastern portion of the property has been identified as the area of hydrocarbon impacted groundwater. Drinking water well located within 2,000 feet of site near Cherry Street and Catalina Street. Monitoring of the site is on-going.

Shell Oil – This facility is located at 10961 Los Alamitos Boulevard in the northwest corner of Katella Avenue and Los Alamitos Boulevard and adjacent to the Los Alamitos Sub-Trunk and West Side Relief Interceptor. This facility is listed in the LUST database as having three in-service USTs. A release was reported in 1988 and the case was closed in 1998. Another release was reported in 2001 when collection of groundwater and soil samples detected petroleum constituents 21 feet below ground surface. Monitoring and remedial activities have been conducted on site. According to the 2014 groundwater report, groundwater flow direction

is generally to the southeast, towards the proposed project. In 2015, the monitoring wells were destroyed. According to the 2015 well destruction report, groundwater beneath the site was encountered at an average depth of 14 feet. Since 2011, the groundwater plume has been stable or decreasing. There are no public supply wells or surface water bodies within 1,000 feet of the site. Any residual petroleum constituents would pose a low risk to human health, safety, and the environment. The SWRCB granted case closure in September 2015.

Circle K Store #2211150 (Former Mobil #18-GQ0) – This facility is located at 3971 Cerritos Avenue in the northwest quadrant of Cerritos Avenue and Bloomfield Street and adjacent to the Los Alamitos Sub-Trunk. This facility is listed in the LUST database as having two in-service USTs used to store gasoline and one in-service UST used to store waste oil. According to the UST case closure form dated 2015, three USTs used to store gasoline were removed in 2000. Site assessments have been conducted since 2000 and have identified the primary source area of contamination near the former USTs in the southern portion of the site. According to the 2015 status report, depth to groundwater on site ranges from approximately 8.5 feet to 10.5 feet with a groundwater flow direction generally to the southwest, towards the proposed project. Per the low-threat closure review by Orange County Local Oversight Program (OCLOP), groundwater sampling is on-going on site.

Unocal #4686 (aka Tosco/76)/Russell Conkle Unocal #4686 – This facility is located at 12071 Seal Beach Boulevard in the southwest quadrant of Bradbury Road and Seal Beach Boulevard and adjacent to the Los Alamitos Sub-Trunk and West Side Relief Interceptor. This facility is listed in the LUST database as having two in-service USTs used to store gasoline, one in-service UST used to store diesel, and one in-service UST used to store waste oil. Prior to Tosco acquiring the property in 1997, a soil gas survey was conducted on site which identified the presence of fuel hydrocarbons in the soil. In 1998, remedial activities and monitoring began on site. Site closure was requested in 2014. According to the closure report, the source areas of concern are located near the current USTs and the dispenser islands. There are no sensitive receptors within ¼ mile of the site. In addition, surface bodies of water and water production wells are located over 2,000 feet away from the site. Per the Santa Ana Regional Water Quality Control Board (SARWQCB), well abandonment and remediation system decommissioning activities were authorized on site in June 2014. According to the September 2015 site status report, the average groundwater elevation beneath the site was approximately 4.5 feet and the estimated groundwater flow direction is to the east, towards the proposed project. Monitoring of the site is on-going to confirm residual contamination is stable and/or decreasing overtime.

Solid Waste Facility/Landfill Database

Three sites are listed in the Solid Waste Facility/Landfill (SWF/LF) database. However, only one is located within ¼ mile of the proposed project and listed as active:

City of La Palma Corp – This facility is located at 8415 Meadowlark lane as a permitted facility. According to Cal-Recycle, an inspection was conducted in August 2015 with no reported areas of concerns/violations.

Response California Database

There are three sites listed in the Response – CA database. Joint Forces Training Base is listed twice and discussed below and the Naval Weapons Station Seal Beach is discussed above.

Joint Forces Training Base – This facility is located near Lexington and Farquhar, approximately ¼ mile east from the West Side Relief Interceptor and Los Alamitos Sub-Trunk off Los Alamitos Boulevard and approximately ¼ mile south from the West Side Relief Interceptor off Katella

Avenue. This site includes approximately 1,300 acres of relatively flat terrain. The facility is operated by California Army National Guard (CA ARNG) and is the coordinating center for the Governor's Office of Emergency Services and is a disaster support site. The site includes administrative and engineering offices, security, classrooms, training buildings, a chapel, an airfield, helicopter maintenance hangars, a fire station, a Jet Propulsion (JP)-4 Tank Farm, a landfill, a golf course, and agricultural fields. Site occupants include the Navy, Marine Corps, U.S. Department of Agriculture Medley Project, Civil Air Patrol, Army/Air Force Exchange Services, and the Sea/Air Credit Union. A preliminary assessment was conducted in 1993 which lead to monitoring and remediation on site. A remedial investigation/feasibility study (RI/FS) was completed in 2006. Based on these studies, groundwater contamination was identified in several areas of the site including the JP-4 Tank Farm, Fuel Farm Office (FFO), New Crash Fire Rescue (CFR) Training Area, Seabee Compound, Hangar 1, Hangar 2/Building 9, and Buildings 34, 35, 158, and 159. In addition, between the mid-1950s through 1988 the site accumulated landfill waste and in 2008 was transferred to a waste consolidation cell (WCC). The Four Seasons Gas Station in the northern portion of the site was in operation since the early 1950s. Three USTs were removed in 1996 and two additional tanks were removed in 2009. Several site investigations of this area had identified elevated levels of total petroleum hydrocarbons as gasoline (TPH-g), benzene, and methyl tert butyl ether (MTBE) in the soil and groundwater samples. According to the 2015 groundwater monitoring report, groundwater monitoring on site has identified groundwater elevations ranging from 6 feet to 17 feet and the groundwater flow direction toward the southwest, towards the proposed project. Monitoring and remedial activities are being conducted on site in several areas due to past activities. Although contaminant levels in most areas continue to decrease, no further action has only been granted for the Fuel Farm Office, Building 35 Wells, Buildings 158 and 159, and Hangar 1.

Envirostor Database

There are ten sites listed in the Envirostor database as having certified cleanup, no further action, or listed in permitting databases. Therefore, these sites would not impact the proposed project. Seventeen of these sites are listed in other databases and discussed in other sections. One site was listed four times in this database as inactive with action required as follows:

Los Alamitos Elementary School – This facility is located at 10862 Bloomfield Street, approximately 400 feet north from the Westside Relief Interceptor. From at least 1930 to 1950, the site was used for agricultural purposes with potential use of pesticides. From 1950 to 1980 the site operated as a railroad line with potential use of arsenic to treat railroad ties. The site has operated as a school since 1980. McAuliffe Intermediate School was constructed to the north and Los Alamitos Elementary School was constructed to the south. There is a historic railroad easement approximately 100 feet by 800 feet in between the two schools. According to the site screening in 2009, a preliminary environmental assessment conducted on site revealed the presence of elevated levels of arsenic in the shallow soils in the vicinity of the historic railroad line. Pesticides were also detected. The depth to groundwater on site ranges from 8 feet to 12 feet below ground surface and the groundwater flows in a southwesterly direction. Further investigation was conducted to delineate the extent of arsenic contamination on site. The impacted soil has not been removed from the site.

SLIC Reg 8 Database

There are six sites listed in the SLIC Reg 8 database. Two are listed as active open sites:

Rossmoor Center (Former Goodyear Waste Dumpster Area) – This facility is located at 12239 Seal Beach adjacent to the proposed project. The Goodyear Tire Store occupied the site between 1994 and June 2004. Waste materials were stored in a dumpster area located south of

the former building and west of the Parasol building, which was occupied by a restaurant. This area was also used to work on cars and store containers of waste materials. The pavement in this area was reported to be degraded. The Goodyear building was demolished in 2006 and the property was redeveloped. Soil borings were conducted at a location several feet east of the dumpster and waste storage area. Vapor measurements detected hydrocarbons in the soil samples. In October 2004, additional soil borings were conducted. Soil samples were collected to a depth of 20 feet below ground surface (bgs). The soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) and volatile organic compounds (VOCs). TPH-G and benzene were detected in all soil samples. Elevated concentration of toluene, ethylbenzene, and xylene were also detected. Methyl tert-butyl ether (MTBE) or other oxygenate compounds were not detected in the soil samples. Groundwater was encountered at 23 feet bgs. A water sample was collected and showed high concentrations of benzene, toluene, ethylbenzene, xylene, 1,2-dichloroethane (1,2-DCA) and naphthalene. MTBE or other oxygenate compounds were not detected in the groundwater sample. A soil vapor sample was also collected in the area. No VOCs were detected in the soil vapor sample. From 2004 to 2006, additional soil borings were conducted for collection of soil and groundwater samples. There has been no record of USTs on site, thus the source and/or approximately date of release of these hydrocarbons remains unknown. Remedial activities were performed on site from 2006 to 2012 which included excavation and offsite disposal. Soil was excavated to a depth of 20 to 22 feet to remove contaminated soil. Very moist soil was encountered at 18 feet bgs. The excavation could not be extended beyond 22 feet bgs do to slumping and caving of the moist sandy soil. Approximately 567 cubic yards of soil was removed from the excavation. The excavated soils were transported offsite. Groundwater was detected at approximately 12 to 14 feet below ground surface. Although the site is relatively flat, there are local variations in the groundwater flow and gradient in this area. Groundwater flow on the adjacent property to the east (Mobil) was measured in a southwest direction, towards the Los Alamitos Sub-Trunk and Westside Relief Interceptor. However, the groundwater flow in the upper zone on site is towards the northwest to southeast. According to the 2015 closure report and based on monitoring of the site after remediation, residual contaminants remain on site, but are stable and should not impact deeper usable groundwater or human health. The remaining impacts are anticipated to degrade through natural attenuation and therefore additional remediation is not necessary. Therefore, closure of the site and no further action was requested. However, the RWQCB requested a Work Plan for additional soil sampling, groundwater plume delineation, and cleanup goals.

Best Cleaners – This facility is located at 11139 Los Alamitos Boulevard adjacent to the proposed project and within a commercial shopping center situated immediately southwest of the intersection of Los Alamitos Boulevard and Katella Ave. Best Cleaners currently occupies this site as a dry cleaning facility that has clothing, cleaning, drying, and pressing equipment on-site. Past uses of the site included agricultural use from the 1940s to late 1950s, part of a commercial shopping center in the late 1960s, and a dry cleaning facility since 1995. Tetrachloroethene (PCE) is the main product associated with dry cleaning processes. Since 2008, the facility has been using a petroleum based solvent. The concerns on site are the presence of PCE and its breakdown products. The break down products of PCE may pose a threat to groundwater quality. PCE's breakdown products include 1, 2 dichlorothene (DCE), vinyl chloride, and ethane. In 2002, soil and groundwater underlying the subject site were identified as having been impacted with PCE. From 2002 to 2014, six subsurface investigations were conducted to define the horizontal and vertical extent of PCE-impacted soil and groundwater. Sampling results concluded that the source of the contaminants was from a former dry cleaning machine. The highest concentrations of contaminants were located adjacent to the machine. PCE-impacted soil migrated up to 40 feet from the former dry cleaning machine

and to a depth of 22 feet beneath and immediately adjacent to the western portion of the dry cleaning facility. PCE-impacted groundwater has not migrated off-site. In 2009, a bio-enhanced remediation project was implemented on site. The project included the injection of hydrogen releasing compound (HRC) into soil and groundwater underlying the subject site to remediate the elevated concentrations of PCE. PCE concentrations were above MCLs and Vinyl Chloride (VC) levels at the site had increased. Monitoring of the site continued and another injection of a hydrogen-releasing compound (HRC) was proposed to accelerate the bioremediation of PCE underlying the site. In 2012, a conceptual site model was prepared to address the nature and extent of subsurface contaminants and to evaluate their possible impact to human health, the environment, or beneficial uses of water resources. In 2013, a soil vapor survey was conducted. According to the 2015 groundwater report, groundwater elevations have decreased and the flow remains in an easterly direction, towards the proposed project. Water was detected at approximately 13 feet below ground surface. According to the soil vapor survey and health risk assessment report, additional soil vapor samples were collected from the residential apartment complex to the west to determine if impacted soil vapors were a threat to the residents. The results concluded these potential containments were not considered a threat to the health of the apartment complex. However, due to contaminants still present beneath the dry cleaning facility, the RWQCB recommended a remedial action plan for the site. Following construction of a vapor extraction system and associated testing, a formal report will be submitted and closure of the site proposed.

Industrial Cleanup Database

There are 11 sites listed in the Industrial Cleanup Orange County database. Two sites are listed as open and active (the Goodyear lease facility site is discussed above):

Katella Cleaners – This facility is located at 3624 Katella Avenue adjacent to the Westside Relief Interceptor replacement activities. According to the Envirosite report, the following substances were released on site: perchloroethylene, trichloroethylene, and dichloroethylene. Additional information can be reviewed from Orange County.

MCS Database

There is one site, Naval Weapons Station Seal Beach, listed 20 times in the MCS database and is discussed above. Due to the size of this site, there are several events reported under different operating units.

Aboveground Storage Tanks and Underground Storage Tanks Databases

There are 99 listed sites in the state and county aboveground storage tanks (ASTs) and underground storage tanks (USTs) databases. There have been no reported violations or active violations for these sites. In addition, acquisition of these sites is not anticipated that would require removal of storage tanks. However, there are 25 listed sites adjacent to the proposed improvements which are listed below. Precautions should be taken in these areas to avoid activities near storage tanks. In addition, construction personnel need to be trained to recognize signs of contamination such as odors, stained soils, etc.

- MEPCO/Shell Oil – This facility is located at 5022 Crescent Avenue and also listed in the LUST database as having a closed release event in 2012.
- Arco #1738/Caspian Sea Petroleum Inc. – This facility is located at 5012 Lincoln Avenue and also listed in the LUST database as having a closed release event in 2003.
- AJ's Automotive – This facility is located at 8980 Moody Street with no reported violations.

- Cypress School District – This facility is located at 9470 Moody Street and also listed in the LUST database as having a closed release event in 2003.
- Cypress Golf Course – This facility is located at 4561 Katella Avenue with no reported violations.
- Talin Tire Inc – This facility is located at 11121 Los Alamitos Boulevard and also listed in the LUST database as having a closed release event in 1990.
- Goodyear Lease Facility – This facility is located at 12239 Seal Beach and also discussed above.
- Tommy Faught Chevron Service Inc – This facility is located at 12541 Seal Beach Boulevard and also listed in the LUST database as having a closed release event in 1992.
- Bixby Ranch CO – This facility is located at 3010 Old Ranch Parkway with no reported violations.
- Leisure World Union #30774 – This facility is located at 13980 Seal Beach Boulevard and also listed in LUST database as having closed release events in 1991 and 2013.
- Jim Holcheks Chevron Service/Seal West Chevron – This facility is located at 2950 Westminster Avenue and also listed in LUST database as having a closed release event in 2012.
- ABC Development Preschool/Cypress Egg Farm – This facility is located at 8651 Moody Street with no reported violations.
- Cerritos Equipment Rental Inc – This facility is located at 8711 Moody Street with no reported violations.
- Park Trailer Sales – This facility is located at 5071 Lincoln Avenue and also listed in LUST database as having a closed release event in 1996.
- Indian Bar Company Arrowhead Products – This facility is located at 4411 Katella Avenue with no reported violations.
- Louisiana Pacific Corp – This facility is located at 4281 Katella Avenue and also listed in the LUST database as having a closed release event in 1986.
- Los Alamitos Shell – This facility is located at 10961 Los Alamitos and also listed in the LUST database as having closed release events in 1998 and 2015.
- Rossmoor Car Wash – This facility is located at 11031 Los Alamitos and is discussed above.
- Jiffy Lube #1740 – This facility is located at 3311 Katella Avenue and also listed in the LUST database as having a closed release event in 2015.
- Exxon Service Station – This facility is located at 11171 Los Alamitos and also listed in LUST database as having a closed release event in 1997.
- Texaco – This facility is located at 11250 Los Alamitos and also listed in LUST database as having a closed release event in 2014.
- JV Hartwell/JS Hartwell/Arco #3038 – This facility is located at 12800 Seal Beach Boulevard and also listed in LUST database as having a closed release event in 2014.
- Galaxy Cypress Chevron – This facility is located at 4992 Lincoln Avenue with no reported violations.
- Los Alamitos Medical Center – This facility is located at 3751 Katella Avenue with no reported violations.
- Circle K #2211150 – This facility is located at 3971 Cerritos Avenue and discussed above.
- Orange County Fire Station – This facility is located at 3131 Beverly Manor with no reported violations.

- GTE Alamitos – This facility is located at 2400 Beverly Manor and also listed in LUST database as having a closed release event in 1995.

Unmappable Sites
The Envirosite government records report identified 58 sites as unmappable due to limited address information. The majority of these sites were unmappable due to the owner address being searched instead of the facility address. Of the 58 sites reviewed, 16 sites were identified over one mile away and would not impact the proposed project. There are 15 sites that could not be located: six sites are listed in the haznet database which includes hazardous waste manifests from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters six sites are listed in the well investigation program (WIP) database, one site is listed in the UST database, and one site is listed in the facility registry system (FRS) database. There have been no reported releases or violations associated with any of these sites. Therefore, these sites are not anticipated to impact the proposed project. In addition, there is one site that could not be located and is listed in the industrial cleanup database. The facility is listed as Union Pacific Railroad spill site. Since the project is not within ¼ mile of a railroad, this site is not anticipated to impact the proposed project.

There are 26 sites within one mile of the proposed project listed in the following databases: 1 in the clandestine drug labs (CDL) database, 18 in the haznet database, 2 in the Resource Conservation and Recovery Act large quantity generators (RCRA LQG) database, 2 in the industrial cleanup database, 1 in the FRS database, and 1 in the AST database. These sites are currently occupied by other businesses, are located over ¼ mile from the proposed project, and/or have no reported releases or violations. Therefore, these sites are not anticipated to impact the proposed project. In addition, there is one site listed in the SWF/LF database: City of Los Alamitos LVT/Joint Forces Training Base. This site is listed in several databases and discussed above. There is one site listed in the SLIC REG 4 CA database and discussed below:

Texaco USA-Bryant Lease – This facility is located at 7000 Pacific Coast Highway, approximately ¼ mile west from the Seal Beach Interceptor. The site case is open, but inactive since 1965.

Additional Records Review
File review requests were also submitted to Cal-Recycle, OCHCA, and RWQCB to obtain additional information on some sites of concern discussed above. Information obtained from these agency records are discussed above under the appropriate sites. No full records searches were conducted with these agencies since a government records report was obtained from Envirosite.

The Envirosite government records report did not identify any oil, gas, or related wells within the vicinity of the proposed project. Records were also searched from the Department of Conservation, Division of Oil, Gas and Geothermal Resources (DOGGR). Three wells were identified as inactive and plugged within approximately 700 feet to 1,000 feet from the proposed project and one well was identified as active and plugged within approximately 1,700 feet from the proposed project (see Figure 2). Due to the distance the wells are located from the proposed project; it is not likely that these wells would have impacted the project area during installation. However, precaution should still be taken in the vicinity of the wells in the unlikely event that potentially stained soil or oil field debris is encountered during subsurface activities.

Historical Aerial and Topographic Photography Review

In addition to the government records report, historic topographic and aerial photographs were obtained from Envirosite and reviewed for this project. A total of 46 topographic photographs dated from 1896 to 2015 and 36 aerial photographs dated from 1972 to 2014 were reviewed. During the early 1900's, the project area mostly consisted of the railroad, agricultural uses, and minor development. The Texas Oil Tank Farm located north of Ball Road and west of Moody Street was in operation during the 1930's. South of Cerritos Avenue, a railroad station appears to be visible on the 1935 topographic maps which is later labeled as stacks on the 1949 topographic maps. Commercial and residential development started to increase during the 1940s including the Naval Reservation which later became the Los Alamitos Naval Air Station in the early 1960s. In addition, powerplants were constructed in the early 1960s in the Seal Beach area. Sanborn coverage was not available within the project area.

Conclusions

According to California Government Code Section 65962.5 (Cortese List), there is one site on this list, Naval Weapons Station Seal Beach, which is located southeast of the Seal Beach Boulevard and Westminster Avenue intersection and adjacent to the Seal Beach Interceptor. This site is discussed in further detail above.

In addition, the Envirosite government records report identified 17 sites associated with the release of hazardous materials as discussed above. These sites could create a significant hazard to the public or the environment since remedial activities are on-going at these sites. Several sites with shallow groundwater contamination are located up gradient and adjacent to the pipelines where open-trench activities would occur and where excavation could be 24 feet below ground surface. Intrusive activities may encounter contaminated groundwater and soils requiring appropriate materials handling, disposal and potentially presenting worker exposure concerns. The presence of volatile organic compounds present additional worker safety concerns through the vapor intrusion/inhalation pathway.

A Phase II ESA is recommended to determine the presence or absence of potential contamination in soil and groundwater potentially encountered during site-related construction activities. Soil and groundwater samples are recommended throughout the Site to support decision-making associated with materials management, worker safety, and identification of potential remedial options during construction, if required. If the Phase II ESA determines that human contact with contaminated soils or groundwater may occur, then the contractor will need to address worker safety risks prior to undertaking construction activity.

Development of a Materials Management Plan (MMP) is recommended to address the identification, handling, and management of potential contaminated soil and groundwater that may be generated during construction. The MMP should also address health and safety procedures for workers and site visitors to include personal protective equipment (PPE), applicable action level criteria, engineering controls, and administrative controls to limit potential exposure to site contaminants. Procedures outlined in the MMP should specify, at a minimum, waste sampling methods, excavation and stockpile management, contaminated soil treatment/disposal options, and contaminated wastewater treatment/disposal options.

All open-cut trenching and excavation would be conducted consistent with Cal/OSHA regulations for safety, including those outlined in California Code of Regulations, Title 8, Section 1540, *Excavations*. Provided that all Cal/OSHA safety procedures are followed, the proposed project would not cause a significant impact to worker safety.

References

Envirosite Corporation. 2015. Government Records Report, Historical Aerial Photo Package, and Historical Topographic Map Report.

Government Records Report | 2015

Order Number: 2452
Report Generated: 10/15/2015

Project Name: OCSD Rehabilitation of Western Regional Sewers
Project Number: W9X99300

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Envirosite Corporation appreciates your business.
Please contact your Envirosite Corporation customer service representative at 866-211-2028 with any questions.

A search of available environmental records was conducted by Envirosite Corporation. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for all Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed from the evaluation of environmental risks associated with a parcel of real estate. Executive Summary does not include a summary of report findings related to the selected Map Layers, this information is contained in the Map Findings section as well as being displayed on appropriate maps.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Orange Western Sub-Truck
Orange Avenue
Anaheim, CA 92804

COORDINATES:

Latitude (North):	33.827655 - 33° 49' 39.6"
Longitude (West):	-118.010392 - -118° 0' 37.4"
Universal Transverse Mercator:	Zone 11N
UTM X (Meters):	406502.63
UTM Y (Meters):	3743505.95
Elevation:	65.000 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 33118g1 LOS ALAMITOS, CA
Most Recent Revision: 2012

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

DATABASE(S) WITH NO MAPPED SITES:

No mapped sites were found in Envirosite Corporation's Search of available ("Reasonable ascertainable") government records either on the subject property or within the search radius around the subject property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

FEDERAL CERCLIS LIST

CERCLIS	Comprehensive Environmental Response Compensation and Liability Act
CERCLIS NFRAP	Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned
FEDERAL FACILITY	Federal Facility sites

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS	Hazardous Waste Corrective Action

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
FED-PUBLISHED INSTITUTIONAL CONTROLS	Published Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL LIENS	National Priority List Liens
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List

FEDERAL RCRA GENERATORS LIST

RCRA_LQG	Resource Conservation and Recovery Act_ Large Quantity Generators

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST	FEMA Underground Storage Tanks
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST_CONTRA COSTA COUNTY - CA	Contra Costa County Aboveground Storage Tanks
AST_KERN COUNTY - CA	Kern County Aboveground Storage Tanks
AST_ORANGE COUNTY - CA	Orange County Aboveground Storage Tanks
AST_PLACER COUNTY - CA	Placer County Aboveground Storage Tanks
AST_YOLO COUNTY - CA	Yolo County Above Ground Storage Tanks
BP HW OUT_VENTURA COUNTY - CA	Ventura County Business Plan Hazardous Waste Producers and Operating Underground Tanks
BUSINESS INVENTORY_SAN MATEO COUNTY - CA	San Mateo County List of Underground Storage Tanks Hazardous Materials Business Plan and Hazardous Waste Generators

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

CLOSED UST_VENTURA COUNTY - CA	Ventura County Closed Underground Storage Tanks
CS_PLACER COUNTY - CA	Placer County Cleanup Sites
LOP_SANTA CLARA COUNTY - CA	Santa Clara County Local Oversight Program
SITE LIST_CONTRA COSTA COUNTY - CA	Contra Costa County Sites List
UST_ALAMEDA COUNTY - CA	Alameda County Underground Storage Tanks
UST_CITY OF LONG BEACH - CA	City of Long Beach Underground Storage Tanks
UST_CITY OF TORRANCE - CA	City of Torrance Underground Storage Tanks
UST_EL SEGUNDO CITY - CA	City of El Segundo Underground Storage Tanks
UST_KERN COUNTY - CA	Kern County Underground Storage Tanks
UST_MARIN COUNTY - CA	Marin County Underground Storage Tanks
UST_MENDOCINO COUNTY - CA	Mendocino County Underground Storage Tanks
UST_NAPA COUNTY - CA	Underground storage tank sites located in Napa county.
UST_PLACER COUNTY - CA	Placer County Underground Storage Tanks
UST_RIVERSIDE COUNTY - CA	Riverside County Underground Storage Tanks
UST_SAN FRANCISCO COUNTY - CA	San Francisco County Underground Storage Tanks
UST_SAN JOAQUIN COUNTY - CA	San Joaquin County Underground Storage Tanks
UST_SOLANO COUNTY - CA	Solano County Underground Storage Tanks
UST_SUTTER COUNTY - CA	Sutter County Underground Storage Tanks
UST_YOLO COUNTY - CA	Yolo County Underground Storage Tanks

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
LUST ORANGE COUNTY - CA	Orange County Leaking Underground Storage Tanks
LUST REG 1 - CA	Region 1 Leaking Underground Storage Tanks
LUST REG 2 - CA	Region 2 Leaking Underground Storage Tanks
LUST REG 3 - CA	Region 3 Leaking Underground Storage Tanks
LUST REG 4 - CA	Region 4 Leaking Underground Storage Tanks
LUST REG 5 - CA	Region 5 Leaking Underground Storage Tanks
LUST REG 6 - CA	Region 6 Leaking Underground Storage Tanks
LUST REG 7 - CA	Region 7 Leaking Underground Storage Tanks
LUST REG 9 - CA	Region 9 Leaking Underground Storage Tanks
LUST_HAZMAT_YOLO COUNTY - CA	Yolo County Leaking Underground Storage tanks
LUST_KERN COUNTY - CA	Kern County leaking underground tank sites

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST_RIVERSIDE COUNTY - CA	Riverside County Leaking Underground Storage Tanks
LUST_SAN FRANCISCO COUNTY - CA	listing of leaking underground storage tanks
LUST_SAN MATEO COUNTY - CA	San Mateo County Leaking Underground Storage Tanks
LUST_SOLANO COUNTY - CA	Solano County Leaking Underground Storage Tanks
LUST_SONOMA COUNTY - CA	Sonoma County Leaking Underground Storage Tanks
LUST_SUTTER COUNTY - CA	Sutter County Leaking Underground Storage Tanks
LUST_VENTURA COUNTY - CA	Ventura County Leaking Underground Storage Tanks
SLIC REG 1 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 2 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 3 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 4 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 5 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 6 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 7 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 8 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 9 - CA	Spills Leaks Investigation & Cleanup Program
SLIC_ALAMEDA COUNTY - CA	Alameda County Spills Leaks Investigation & Cleanup

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

CORRECTIVE ACTION_RIVERSIDE COUNTY - CA	Riverside County Corrective Action Sites
TOXIC SITE_SACRAMENTO COUNTY - CA	Sacramento County Toxic Site Cleanup list

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

LF_LOS ANGELES COUNTY - CA	City of Los Angeles Landfills
LF_SAN DIEGO COUNTY - CA	San Diego County Landfills
SWF_LOS ANGELES COUNTY - CA	Los Angeles County solid waste facilities
SWF_SAN DIEGO COUNTY - CA	San Diego County Solid Waste Facilities.

STATE- AND TRIBAL - EQUIVALENT NPL

RESPONSE - CA	State Response Sites

STATE- AND TRIBAL - EQUIVALENT CERCLIS

TOXIC PITS - CA	Toxic Pits Cleanup Act

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - CA	Voluntary Cleanup Program sites

OTHER ASCERTAINABLE RECORDS

RCRA_FULL_DETAIL	Resource Conservation and Recovery Act_Full detail
RCRA_NONGEN	Resource Conservation and Recovery Act_Non Generators

ADDITIONAL ENVIRONMENTAL RECORDS

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Sites

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES (cont.)

INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
HAULERS - CA	Tire Haulers
SWRCY - CA	Recyclers

LOCAL BROWNFIELD LISTS

FED BROWNFIELDS	Federal Brownfields
TRIBAL BROWNFIELDS	Tribal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs
CALARP_KERN COUNTY - CA	HazMat Chemical Facility List
CASE LIST_SAN DIEGO COUNTY - CA	San Diego County Environmental Case List
CDL - CA	Clandestine Drug Labs
CS_NAPA COUNTY - CA	Contaminated Sites
SCH - CA	School Property Evaluation Program

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
DEED - CA	Deeds
LIENS - CA	Liens

RECORDS OF EMERGENCY RELEASE REPORTS

LDS - CA	Land Disposal Sites
MCS - CA	Military Cleanup Sites
SML_LOS ANGELES COUNTY - CA	Los Angeles County Emergency Response session spills

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
CDC HAZDAT GIS	Hazardous Substance Release/Health Effects Database GIS Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
CONSENT (DECREES)	Superfund Consent Decree
DOD	Department of Defense
DOT OPS	Department of Transportation Office of Pipeline Safety
ENOI	Electronic Notice of Intent
FA HWF	Financial Assurance for Hazardous Waste Facilities
FEDLAND	Federal Lands
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
ICIS	Integrated Compliance Information System
INDIAN RESERVATION	Indian Reservations
LEAD_SMELTER	Lead Smelter Sites
LUCIS	Land Use Control Information Systems
MINES	Mines
MLTS	Material Licensing Tracking Systems
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyls Transformers
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SSTS	Section 7 Tracking Systems
TOSCA-CHEMICAL	Toxic Substance Control Act: Chemicals
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRANSMISSIONS	Electrical Transmissions
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
AOC_SAN GABRIEL VALLEY - CA	San Gabriel Valley Superfund
BOND EXPENDITURE PLAN - CA	Bond Expenditure Plan
CHMIRS - CA	California Hazardous Material Incident Report System
CORTESE - CA	The Hazardous Waste and Substances Sites List
CUPA_FRESNO COUNTY - CA	Fresno County Certified Unified Program Agency
DAYCARE - CA	Daycares
DRYCLEANERS_AMADOR COUNTY - CA	Amador County Drycleaners
DRYCLEANERS_ANTELOPE VALLEY - CA	Antelope Valley Drycleaners
DRYCLEANERS_BAY AREA - CA	Bay Area Drycleaners
DRYCLEANERS_BUTTE COUNTY - CA	Butte County Drycleaners
DRYCLEANERS_CALAVERAS COUNTY - CA	Calaveras County Drycleaners
DRYCLEANERS_COLUSA COUNTY - CA	Colusa County Drycleaners
DRYCLEANERS_EASTERN KERN COUNTY - CA	Eastern Kern County Drycleaners
DRYCLEANERS_EL DORADO COUNTY - CA	El Dorado County Drycleaners
DRYCLEANERS_FEATHER RIVER - CA	Feather River Drycleaners
DRYCLEANERS_GLENN COUNTY - CA	Glenn County Drycleaners
DRYCLEANERS_GREAT BASIN UNIFIED - CA	Great Basin Unified Drycleaners

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_IMPERIAL COUNTY - CA	Imperial County Drycleaners
DRYCLEANERS_LAKE COUNTY - CA	Lake County Drycleaners
DRYCLEANERS_LASSEN COUNTY - CA	Lassen County Drycleaners
DRYCLEANERS_MENDOCINO COUNTY - CA	Mendocino County Drycleaners
DRYCLEANERS_MOJAVE DESERT - CA	Mojave Desert Drycleaners
DRYCLEANERS_MONTEREY BAY - CA	Monterey Bay Drycleaners
DRYCLEANERS_NORTH COAST UNIFIED - CA	North Coast Unified Drycleaners
DRYCLEANERS_NORTHERN SIERRA - CA	Northern Sierra Drycleaners
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA	Northern Sonoma County Drycleaners
DRYCLEANERS_PLACER COUNTY - CA	Placer County Drycleaners
DRYCLEANERS_SACRAMENTO COUNTY - CA	Sacramento County Drycleaners
DRYCLEANERS_SAN DIEGO COUNTY - CA	San Diego County Drycleaners
DRYCLEANERS_SAN JOAQUIN VALLEY - CA	San Joaquin Valley Drycleaners
DRYCLEANERS_SAN LOUIS OBISPO - CA	San Louis Obispo Drycleaners
DRYCLEANERS_SANTA BARBARA COUNTY - CA	Santa Barbara Drycleaners
DRYCLEANERS_SHASTA COUNTY - CA	Shasta County Drycleaner
DRYCLEANERS_SISKIYOU COUNTY - CA	Siskiyou County Drycleaners
DRYCLEANERS_SOUTH COAST - CA	South Coast Drycleaners
DRYCLEANERS_TEHAMA COUNTY - CA	Tehama County Drycleaners
DRYCLEANERS_TUOLUMNE COUNTY - CA	Tuolumne County Drycleaners
DRYCLEANERS_VENTURA COUNTY - CA	Ventura County Drycleaners
DRYCLEANERS_YOLO-SOLANO COUNTIES - CA	Yolo and Solano Counties Drycleaners
EMI - CA	Emissions Inventory Data
FA - CA	Financial Assurance
FA 2 - CA	Solid Waste Facility Financial Assurance
GCC_SANTA CLARA VALLEY - CA	Santa Clara Valley Groundwater Contamination Cleanups
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA	Contra Costa County Hazardous Materials Incident list
HAZMAT_CITY OF SAN JOSE - CA	City of San Jose Hazardous Material Facilities
HAZMAT_SACRAMENTO COUNTY - CA	Sacramento County Master Hazardous Materials Facility list
HAZMAT_SAN BERNARDINO COUNTY - CA	San Bernardino County Hazardous Material Permits
HAZMAT_SAN DIEGO COUNTY - CA	Hazardous Materials Management Division Database
HAZMAT_SANTA CLARA COUNTY - CA	Santa Clara County Hazardous Material Facilities
HIGH FIRE - CA	Fire Hazard Severity Zones
HIST CORTESE - CA	The Historical Hazardous Waste and Substances Sites List

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HMS_LOS ANGELES COUNTY - CA	Los Angeles County Street Number List
HWM COMMERCIAL FACILITIES - CA	Hazardous Waste Management Commercial Facilities
HWP - CA	EnviroStor Permitted Facilities
HWT - CA	Hazardous Waste Transporters
LUFT_ALAMEDA COUNTY - CA	Alameda County Leaking Underground Fuel Tanks
MWMP - CA	Medical Waste Management Program
NFE - CA	Unconfirmed contaminated properties
PERCHLORATE 2 - CA	Perchlorate contaminted sites
PROPOSITION 65 - CA	Proposition 65 Records
RFR - CA	Regulated Facility Report
SITES INVENTORY_VENTURA COUNTY - CA	Ventura County Inventory of Closed Illegal Abandoned and Inactive Sites
SWAT - CA	SWAT - CA
VCCP_VENTURA COUNTY - CA	Ventura County County Cleanup Program
WDS - CA	Waste Discharge System
WILDLANDS - CA	Preserves List
WIP - CA	Well Investigation Program

SURROUNDING SITES: SEARCH RESULTS:

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

FEDERAL RCRA GENERATORS LIST

RCRA_CESQG: Resource Conservation and Recovery Act listing of licensed conditionally exempt small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
WESTERN HIGH SCHOOL	***501 S WESTERN AVE***	***E / 0.007 mi.***	*24*	*60*

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
MERV SMITHS SERVICE STATION	8495 WESTERN AVE	NE / 0.000 mi.	*E8*	*39*
WORLD OIL CO	3270 W LINCOLN AVE	NE / 0.159 mi.	*N77*	*116*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
PACIFIC BELL	3502 W ORANGE AVE	S / 0.000 mi.	*A3*	*33*
ORANGE UNION	9500 VALLEY VIEW AVE	WSW / 0.028 mi.	*J42*	*86*
BONDED CLEANERS LAUNDRY	9523 VALLEY VIEW	WSW / 0.063 mi.	*L50*	*94*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

AST - CA: Listing of tank facilities that are subject to the California Aboveground Petroleum Storage Act

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	3201 W. LINCOLN AVE	ENE / 0.040 mi.	*C46*	*90*

FID UST - CA: The State Water Resource Control Board's Facility Inventory Database underground storage tank locations listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
VACANT / ERIC T ERICSON	*601 S WESTERN AVE*	*ESE / 0.000 mi.*	*7*	*38*
ECONO LUBE N TUNE #4	*3201 W LINCOLN AVE*	*ENE / 0.018 mi.*	*29*	*68*
TYRE SHACK SERVICE CENTER	*3180 W LINCOLN AVE*	*ENE / 0.020 mi.*	*D33*	*76*
PRONTO #306	*3270 W LINCOLN AVE # 306*	*NE / 0.159 mi.*	*N78*	*118*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
PACIFIC BELL COMMUNICATIONS	*3502 W ORANGE AVE*	*S / 0.000 mi.*	*A2*	*33*
CYPRESS COLLEGE SHELL	*6001 ORANGE AVE*	*W / 0.001 mi.*	*G15*	*47*

HIST UST - CA: Historical underground storage tank listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
TYRE SHACK SERVICE CENTER	3180 W. LINCOLN AVE	ENE / 0.011 mi.	*27*	*67*
C MERV SMITHS EXXON	8495 WESTERN AVE.	NE / 0.017 mi.	*28*	*67*
STATION 029	3148 LINCOLN AVE.	ENE / 0.126 mi.	*M63*	*103*
AJ SHCAFFER	7652 HALDOR PL	NE / 0.130 mi.	*65*	*106*
MURAKAMI BROS	3091 W. ORANGE	ESE / 0.235 mi.	*104*	*136*
GERGI IBRAHIM	7760 CRESCENT AVE	NE / 0.246 mi.	*O107*	*138*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
HARRY TAKAHAMA	3840 W. ORANGE AVE.	SW / 0.000 mi.	*5*	*36*
PACIFIC BELL(CA-101)	3502 W. ORANGE	S / 0.001 mi.	*14*	*47*
ABED S ABDEL SHEHID	6001 ORANGE	W / 0.001 mi.	*F18*	*49*
THRIFTY OIL STN 356	9511 VALLEY VIEW	WSW / 0.019 mi.	*H31*	*72*
SERVICE STATION 5552	9500 VALLEY VIEW	WSW / 0.026 mi.	*I40*	*85*
UNION OIL SERVICE STATION 5552	9500 VALLEY VIEW	WSW / 0.026 mi.	*I41*	*86*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

UST - CA: Listing of active underground storage tank facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
VACANT / ERIC T ERICSON	*601 S WESTERN AVE*	*ESE / 0.000 mi.*	*7*	*38*
ECONO LUBE N TUNE #4	*3201 W LINCOLN AVE*	*ENE / 0.018 mi.*	*29*	*68*
TYRE SHACK SERVICE CENTER	*3180 W LINCOLN AVE*	*ENE / 0.020 mi.*	*D33*	*76*
PRONTO #306	*3270 W LINCOLN AVE # 306*	*NE / 0.159 mi.*	*N78*	*118*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
PACIFIC BELL COMMUNICATIONS	*3502 W ORANGE AVE*	*S / 0.000 mi.*	*A2*	*33*
CYPRESS COLLEGE SHELL	*6001 ORANGE AVE*	*W / 0.001 mi.*	*G15*	*47*

UST_ORANGE COUNTY - CA: Orange county underground storage tanks

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS COLLEGE SHELL	6001 ORANGE AVE	W / 0.001 mi.	*G17*	*49*
ARCO #42074	*9511 VALLEY VIEW ST*	*WSW / 0.022 mi.*	*K35*	*77*
HASSAN #3	*9500 VALLEY VIEW ST*	*WSW / 0.028 mi.*	*J43*	*88*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
HEHR, RICHARD/D & E PROPERTIES	601 S WESTERN AVE	ESE / 0.005 mi.	*22*	*58*
ECONO LUBE AND TUNE #4	3201 W LINCOLN AVE	ENE / 0.040 mi.	*C47*	*90*
MJD PROPERTIES	3148 W LINCOLN AVE	ENE / 0.126 mi.	*M64*	*104*
CALIBER INVESTMENT PROPERTY	3270 W LINCOLN AVE	NE / 0.155 mi.	*75*	*112*
ARCO #1969	7760 CRESCENT	NE / 0.246 mi.	*O108*	*138*
KNOTTS BERRY FARM	8039 BEACH	NE / 0.313 mi.	*112*	*146*
BUENA PARK FIRE STATION #61	8081 WESTERN	NNE / 0.315 mi.	*113*	*151*
SHELL OIL	7491 LA PALMA	NNE / 0.378 mi.	*Q120*	*157*
PHILTON PROPERTIES/BALJIANS STATION	7490 LA PALMA AVE	NNE / 0.378 mi.	*Q121*	*163*
WORLD OIL #41	7491 LA PALMA	NNE / 0.378 mi.	*Q122*	*169*
MOBIL #99-ABQ	3000 W LINCOLN AVE	ENE / 0.471 mi.	*126*	*174*
SHELL #101	101 N BEACH BLVD	ENE / 0.472 mi.	*127*	*183*
MOBIL #18-FYE	8510 KNOTT	N / 0.496 mi.	*140*	*202*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SHELL OIL	6001 ORANGE	W / 0.001 mi.	*F19*	*50*
SHELL OIL COMPANY STATION	6001 ORANGE	W / 0.001 mi.	*F20*	*54*
ARCO #5881	9511 VALLEY VIEW	WSW / 0.019 mi.	*H30*	*68*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
THRIFTY OIL #356	9511 VALLEY VIEW	WSW / 0.019 mi.	*H32*	*72*
UNOCAL	9500 VALLEY VIEW	WSW / 0.026 mi.	*I38*	*81*
UNOCAL #5552	9500 VALLEY VIEW	WSW / 0.026 mi.	*I39*	*83*
CYPRESS COLLEGE	9200 VALLEY VIEW	W / 0.270 mi.	*109*	*144*
PLUMBING PIPING & CONSTRUCTION	5910 LAKESHORE	W / 0.378 mi.	*119*	*155*
RONS CHEVRON	3450 LINCOLN	N / 0.443 mi.	*125*	*172*
CYPRESS CAR WASH	***9971 VALLEY VIEW***	***WSW / 0.488 mi.***	*128*	*185*
MOBIL #18-FEE	6011 BALL	WSW / 0.495 mi.	*135*	*190*
CHEVRON #9-9795	3490 W LINCOLN AVE	N / 0.496 mi.	*R136*	*196*
G & M OIL #113	3490 W. LINCOLN AVENUE	N / 0.496 mi.	*R137*	*198*
LINCOLN KNOTT CAR WASH	6942 LINCOLN	NNW / 0.496 mi.	*139*	*200*
FERGUSON WHOLESALE POULTRY	6072 LINCOLN	WNW / 0.497 mi.	*141*	*209*
TEXACO (FORMER)	6022 LINCOLN	WNW / 0.497 mi.	*142*	*211*
CIRCLE K #2211250	5972 LINCOLN	WNW / 0.499 mi.	*145*	*214*
ANAHEIM GENERAL HOSPITAL	***3350 W BALL RD***	***SSE / 0.499 mi.***	*146*	*216*

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

SWF/LF - CA: Solid Waste Information System's facility listing of solid waste facilities and landfills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
WESTERN STREET SWEEPER TRANSFER STATAION	600 SOUTH WESTERN AVENUE	ESE / 0.000 mi.	*13*	*46*

ADDITIONAL ENVIRONMENTAL RECORDS

STATE- AND TRIBAL - EQUIVALENT CERCLIS

ENVIROSTOR - CA: Department of Toxic Substances Controls

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
KNOTT'S BERRY FARM	8039 BEACH BOULEVARD	NE / 0.334 mi.	*P114*	*153*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS HIGH SCHOOL	***9801 VALLEY VIEW STREET***	***WSW / 0.378 mi.***	*118*	*155*
BUENA PARK STRAWBERRY FIELD	***8932 HOLDER AVENUE***	***WNW / 0.574 mi.***	*162*	*224*
OXFORD ACADEMY	***5172 ORANGE AVENUE***	***W / 0.783 mi.***	*179*	*230*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

RECORDS OF EMERGENCY RELEASE REPORTS

INDUSTRIAL CLEANUP_ORANGE COUNTY - CA: Petroleum and non-petroleum industrial spills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ANAHEIM WEST PLAZA	3150 W LINCOLN AVE	ENE / 0.073 mi.	*54*	*97*

OTHER ASCERTAINABLE RECORDS

DIGITAL OBSTACLE: The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	118 00 18.80W 33 49 38.15N	E / 0.172 mi.	*84*	*122*
N/R	118 00 05.46W 33 50 43.98N	NNE / 0.308 mi.	*111*	*146*
N/R	117 59 40.71W 33 50 23.17N	NE / 0.440 mi.	*124*	*172*
N/R	117 59 19.90W 33 50 40.09N	NE / 0.807 mi.	*180*	*231*
N/R	117 59 35.48W 33 51 02.15N	NE / 0.837 mi.	*182*	*232*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	118 00 32.04W 33 49 48.86N	NNE / 0.381 mi.	*123*	*171*

DRYCLEANERS - CA: Listing of drycleaning facilities

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
All World Cleaners	3440 W Orange Ave	S / 0.000 mi.	*1*	*33*
Bonded Cleaners	9523 Valley View St	WSW / 0.063 mi.	*L51*	*96*

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ANAHEIM UHSD/WESTERN	501 S WESTERN AVE	E / 0.000 mi.	*B6*	*36*
MERV'S SERVICE STATION	8495 WESTERN AVE	NE / 0.000 mi.	*E9*	*40*
8495 WESTERN AVE.	8495 WESTERN AVE.	NE / 0.000 mi.	*E10*	*42*
CALIFORNIA BAPTIST FOUNDATION	225 S WESTERN AVE	ENE / 0.001 mi.	*21*	*57*
STAN BLACKWELL	3178 W LINDACITA LN	E / 0.006 mi.	*23*	*60*
FRANCO ESPATIO	7481 MONROE AVE	NE / 0.010 mi.	*25*	*66*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
HUBERT CHIM	7479 SANTA VALERA ST	NNE / 0.011 mi.	*26*	*66*
ROBIN HOLT	7491 SANTA ELENA DR	NNE / 0.029 mi.	*44*	*88*
MONA BUCKHOLDER	8841 BUCHANAN CIR	NE / 0.030 mi.	*45*	*89*
FRAZIER, JANET	3213 W CABOT DR APT 4	ENE / 0.042 mi.	*48*	*93*
GREG SENGLAUB	3142 W DEL MONTE DR	ENE / 0.090 mi.	*55*	*98*
WEBRIGHT, BILL	3140 W. PASO ROBLES DR.	E / 0.101 mi.	*58*	*100*
PHIL DEVINE	3194 W WESTHAVEN DR	ESE / 0.102 mi.	*60*	*101*
JUDY HILDEBRANDT	411 S BELLA VISTA ST	ESE / 0.123 mi.	*62*	*103*
SUAN SINGLETON	7353 FILLMORE DR	NNE / 0.140 mi.	*67*	*107*
BIENUFNIDO VERCELES	3343 W OLINDA LN	ESE / 0.157 mi.	*76*	*115*
ROBERT & MARISOL NAVARRETTE	3214 W STONYBROOK DR	SE / 0.160 mi.	*80*	*119*
ANDRES MANGAHAS	8444 SANTA BERTA WAY	NNE / 0.176 mi.	*85*	*122*
MARTIN, SHARELL AND JAMES	3108 W OLINDA LN	E / 0.190 mi.	*88*	*124*
TT AUTOMOTIVE	3116 WEST LINCOLN AVENUE	ENE / 0.192 mi.	*89*	*125*
NGUYEN, CHERIE	7701 FILLMORE DR	NE / 0.192 mi.	*90*	*126*
SAVANA SCHOOL DISTRICT REID ELEMENTARY SCHOOL	720 S WESTERN AVE	SE / 0.201 mi.	*91*	*126*
VILLA GRANDE APARTMENTS	7720 CRESCENT AVE APT 14, 15, 35	NE / 0.212 mi.	*96*	*130*
JERRY BRUNTZ	3430 W DANBROOK AVE	ENE / 0.218 mi.	*97*	*131*
JANICE LEWIS	300 S GRAND AVE	E / 0.219 mi.	*98*	*132*
CITY OF ANAHEIM	3100 W ORANGE AVE	ESE / 0.222 mi.	*99*	*132*
AQUILINO & GLECY PANGANIBAN	8856 PIERCE DR	NNE / 0.223 mi.	*101*	*134*
ART BITNER	8291 PIERCE DR	NNE / 0.237 mi.	*105*	*137*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
PACIFIC BELL TELEPHONE CO DBA AT&T CALIF	3502 W ORANGE AVE	S / 0.000 mi.	*A4*	*35*
BART R BOULTON DDS INC	6081 ORANGE AVE STE 1	W / 0.000 mi.	*11*	*43*
SCUBA MANIA INC DBA SCUBA TOYS	6021 ORANGE AVE	W / 0.000 mi.	*12*	*45*
SHELL OIL PRODUCTS US # 135217	6001 ORANGE ST	W / 0.001 mi.	*G16*	*48*
ARCO	9511 VALLEY VIEW ST	WSW / 0.022 mi.	*K34*	*77*
BP WEST COAST PRODUCTS LLC 5881	9511 VALLEY VIEW ST	WSW / 0.022 mi.	*K36*	*78*
TESORO #42074	9511 VALLEY VIEW ST	WSW / 0.022 mi.	*K37*	*80*
TOM TANDOC	6083 RONALD CIR	WSW / 0.053 mi.	*49*	*94*
HOLDER SCHOOL	9550 HOLDER ST	WSW / 0.066 mi.	*53*	*97*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JEFF PANKAU	6151 ROSEMARY DR.	WSW / 0.096 mi.	*56*	*99*
DANIEL KWAN	9402 VALLEY VIEW ST APT C	W / 0.099 mi.	*57*	*99*
TIMOTHY LIN	6092 MARILYN DR	WSW / 0.101 mi.	*59*	*101*
DENISE MASON	9574 PEARTREE LN.	WSW / 0.113 mi.	*61*	*102*
FELIX QUINTERO	6392 ROSEMARY DR	WSW / 0.136 mi.	*66*	*106*
WARREN RULAND	6402 ROSEMARY DR.	WSW / 0.143 mi.	*68*	*108*
SAMPHOEUM SON	6442 ROSEMARY DR	WSW / 0.143 mi.	*69*	*108*
RENE BEIRO	5872 MAXSON DR	WSW / 0.144 mi.	*70*	*109*
ANTOINETTE ROBERTS	9653 MOUNT BARNARD DR	SW / 0.145 mi.	*71*	*110*
KOO, HYUNG	6103 LAWRENCE STREET	WSW / 0.146 mi.	*72*	*110*
ARTHUR BROWN	6630 MOUNT WHITNEY DR	SW / 0.148 mi.	*73*	*111*
HAROLD JOHNSON	9362 VIA SEVILLA DR	W / 0.149 mi.	*74*	*112*
CAMALA KANAKA	5871 WELLSON DR	WSW / 0.160 mi.	*79*	*118*
GILBERTO & CARMEN MOLINA	5832 ORANGE AVE	W / 0.165 mi.	*81*	*119*
GEORGE JACOBSEN	5872 WELLSON DR	WSW / 0.168 mi.	*82*	*120*
JOSE AGUILAR	9682 MOUNT BARNARD DR	SW / 0.171 mi.	*83*	*121*
BRIAN MARKS	9688 PAULINE DR	WSW / 0.188 mi.	*86*	*123*
JAMES BAILEY	6045 JEFFREY MARK ST	WSW / 0.188 mi.	*87*	*124*
WOO, CHRIS	5821 WELLSON DR.	WSW / 0.203 mi.	*92*	*127*
MARK COSTELLO	9699 PAULINE DR	WSW / 0.204 mi.	*93*	*128*
HIRAGA, DEAN	5851 KAREN AVE.	W / 0.207 mi.	*94*	*129*
GENE GLATZHOFER	3338 W FAIRCREST DR	SSE / 0.211 mi.	*95*	*129*
MIKE & LINDA WEINSTOCK	6841 MOUNT WATERMAN DR	SSW / 0.223 mi.	*100*	*133*
CARLOS OZUNA	6651 MOUNT SHASTA CIR	SW / 0.228 mi.	*102*	*135*
STANLEY DEPUE	808 S WESTCHESTER DR	SE / 0.232 mi.	*103*	*136*
HANSON WALTER	5851 SHIRL ST	W / 0.245 mi.	*106*	*137*

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
VALERO	***7760 CRESCENT AVE***	***NE / 0.273 mi.***	*110*	*145*
KNOTTS BERRY FARM	***8039 BEACH BLVD***	***NE / 0.334 mi.***	*P115*	*154*
WALGREENS #7679	7878 CRESCENT AVE	NE / 0.369 mi.	*117*	*154*
ONE STOP CLEANERS	8812 KNOTT AVE	N / 0.491 mi.	*129*	*188*
B & L FUEL MART	***8510 KNOTT AVE***	***N / 0.496 mi.***	*138*	*200*
BAJA CUSTOM AN ELECTRICAL	8710 STANTON AVE	ENE / 0.504 mi.	*147*	*219*
MANILA BRAKES & AUTO	8712 STANTON AVE	ENE / 0.508 mi.	*151*	*220*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
B & S AUTO CENTER	8740 STANTON AVE	ENE / 0.508 mi.	*152*	*221*
CASTANEDA AUTO REPAIR	8736 STANTON AVE	ENE / 0.508 mi.	*153*	*221*
TOKYO AUTOMOTIVE REPAIR	8720 STANTON AVE	ENE / 0.508 mi.	*154*	*221*
C & R COMPLETE AUTO REPAIR	8746 STANTON AVE	ENE / 0.508 mi.	*155*	*222*
MISSION AUTO REPAIR & TRANSMISSION	8730 STANTON AVE	ENE / 0.508 mi.	*156*	*222*
SINGH AUTO SERVICE	8744 STANTON AVE	ENE / 0.508 mi.	*157*	*222*
CERTIFIED TIRE & SERVICE CENTER	7960 LA PALMA AVE	NE / 0.586 mi.	*166*	*226*
BED BATH AND BEYOND #325	8390 ON THE MALL STE 237	NE / 0.712 mi.	*174*	*228*
SEARS SERVICE CENTER #6731	8150 LA PALMA AVE	NE / 0.713 mi.	*175*	*229*
ADVENTURE CITY	1238 S BEACH BLVD	ESE / 0.775 mi.	*178*	*230*
MICHAELS STORES INC	8341 LA PALMA AVE	NE / 0.899 mi.	*186*	*233*
B & J COMPLETE AUTO REPAIR	10281 BEACH BLVD	SE / 0.925 mi.	*187*	*234*
WAL-MART #5032	8450 LA PALMA AVE	NE / 0.994 mi.	*189*	*234*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ARCO #42074	***9511 VALLEY VIEW ST***	***WSW / 0.022 mi.***	*K35*	*77*
HASSAN #3	***9500 VALLEY VIEW ST***	***WSW / 0.028 mi.***	*J43*	*88*
BONDED CLEANERS AND LAUNDRY	9523 VALLEY VIEW ST	WSW / 0.063 mi.	*L52*	*96*
PLASTIC MOLDED COMPONENTS INC	5921 LAKESHORE DR	W / 0.364 mi.	*116*	*154*
WALGREENS #10200	6006 LINCOLN AVE	WNW / 0.494 mi.	*130*	*189*
EMILES MOBIL MART	***6011 BALL RD***	***WSW / 0.494 mi.***	*131*	*189*
VALVOLINE INSTANT OIL CHANGE	5971 BALL RD	WSW / 0.495 mi.	*132*	*189*
ROYAL CLEANERS	6348 LINCOLN AVE	WNW / 0.495 mi.	*133*	*190*
RITE AID #5496	8998 KNOTT AVE	N / 0.495 mi.	*134*	*190*
JUST TIRES	6962 LINCOLN AVE	NNW / 0.498 mi.	*143*	*214*
CAL FUEL INC	***5972 LINCOLN AVE***	***WNW / 0.498 mi.***	*144*	*214*
PETCO #534	6020 BALL RD	WSW / 0.505 mi.	*148*	*219*
RALPHS GROCERY #115	6080 BALL RD	WSW / 0.505 mi.	*149*	*220*
MASTER LUBE OF CYPRESS	5904 LINCOLN AVE	WNW / 0.505 mi.	*150*	*220*
MARSHALLS #0240	5895 LINCOLN AVE	WNW / 0.522 mi.	*158*	*223*
ARCADIS US INC/THE HOME DEPOT # 6650	5800 LINCOLN AVE	W / 0.529 mi.	*159*	*223*
CYPRESS EAST CLEANER	10061 VALLEY VIEW ST	WSW / 0.564 mi.	*160*	*223*
BROTHERS THREE AUTO REPAIR	9192 1/2 WALKER ST	W / 0.566 mi.	*161*	*224*
JACKS LAWNMOWER SHOP	9181 WALKER ST	W / 0.579 mi.	*163*	*225*
STATER BROS MARKETS #159	10051 VALLEY VIEW ST	WSW / 0.579 mi.	*164*	*225*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CVS PHARMACY #5837	7065 LA PALMA AVE	N / 0.586 mi.	*165*	*225*
A & E AUTOMOTIVE REPAIR & TOWING	5640 LINCOLN AVE	W / 0.598 mi.	*167*	*226*
ARCO AM/PM	***7990 KNOTT AVE***	***N / 0.638 mi.***	*168*	*226*
CALIFORNIA AUTO CARE	5592 LINCOLN AVE	W / 0.651 mi.	*169*	*227*
CVS PHARMACY #8861	8850 VALLEY VIEW ST	WNW / 0.664 mi.	*170*	*227*
ACTION ALIGNMENT	9052 WALKER ST	W / 0.675 mi.	*171*	*227*
CVS PHARMACY #9575	5501 BALL RD	WSW / 0.687 mi.	*172*	*228*
ALBERTSONS #6105	8880 VALLEY VIEW ST	WNW / 0.692 mi.	*173*	*228*
CYPRESS AUTOMOTIVE	5431 LINCOLN AVE	W / 0.741 mi.	*176*	*229*
CYPRESS AUTO BODY & PAINTING	8900 WALKER ST	W / 0.760 mi.	*177*	*229*
CROOKS TRUCK & EQUIP RENTAL	8932 WATSON ST	W / 0.830 mi.	*181*	*231*
AMERICAN RENTALS INC	5302 LINCOLN AVE	W / 0.845 mi.	*183*	*232*
RCA AUTOMOTIVE REPAIR	5241 LINCOLN AVE	W / 0.883 mi.	*S184*	*233*
YOUNGS AUTO SERVICE	5241 LINCOLN AVE	W / 0.883 mi.	*S185*	*233*
CARLSON GARAGE	5131 LINCOLN AVE	W / 0.988 mi.	*188*	*234*
HENRYS INDEPENDENT IMPORT AUTO SERV	7525 CERRITOS AVE	SSE / 0.996 mi.	*190*	*235*
CALIFORNIA AUTO & BRAKE	7527 CERRITOS AVE	SSE / 0.996 mi.	*191*	*235*

NFA - CA: No further action cleanup sites listing

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS HIGH SCHOOL	***9801 VALLEY VIEW STREET***	***WSW / 0.378 mi.***	*118*	*155*

Following sites were unable to be mapped.

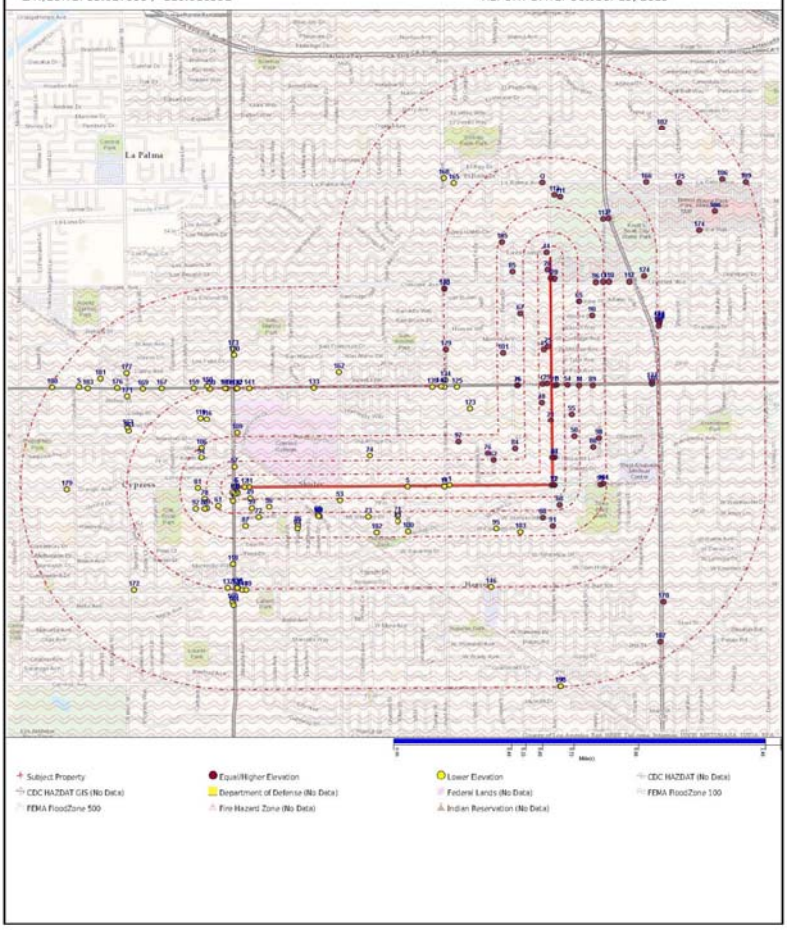
SITE NAME:	DATABASE(S):
Not Reported	CDL - CA
Not Reported	CDL - CA
Not Reported	CHMIRS - CA
Not Reported	CHMIRS - CA
ACSD-MADISON ELEMENTARY	HAZNET - CA
ADVENTURE CITY	HAZNET - CA
ANAHEIM WEST CAR WASH	HIST UST - CA
CAMP COMMANDER	ENVIROSTOR - CA
CONSTRUCTION CONSULTANT EXPERTS INC	HAZNET - CA
CROWN CLEANERS	RCRA_SQG
DALE JENSON	HAZNET - CA

SITE NAME:	DATABASE(S):
FEDEX GROUND PACKAGE SYSTEM INC.	HMIRS (DOT)
FEDEX GROUND PACKAGE SYSTEM INC.	HMIRS (DOT)
FEDEX GROUND PACKAGE SYSTEM INC.	HMIRS (DOT)
G & M OIL INC # 31	HAZWASTE_ORANGE COUNTY - CA, UST_Orange County - CA
G&M OIL CO INC #31	HAZNET - CA
HENRY WESSELN	HAZNET - CA
KHYBER FOODS	FID UST - CA, UST - CA
Metro Link	CHMIRS - CA
Metrolink	CHMIRS - CA
Metrolink	CHMIRS - CA
MetroLink	CHMIRS - CA
NINBURG PROPERTY	FID UST - CA, UST - CA
NORTH BAKERSFIELD TOYOTA SCION	AST_KERN COUNTY - CA
ORANGE COUNTY AQUATIC PESTICIDES - WEEDS	RFR - CA
PEP BOYS #613	FID UST - CA, UST - CA
SAN CARLOS CITY	WDS - CA
SAN CARLOS CITY	WDS - CA
STATION 091	HIST UST - CA
WALGREENS #9388	HAZNET - CA

PROPERTY PROXIMITY MAP

SUBJECT NAME: Orange Western Sub-Truck
ADDRESS: Orange Avenue, Anaheim, CA 92804
LAT/LONG: 33.827655 / -118.010392

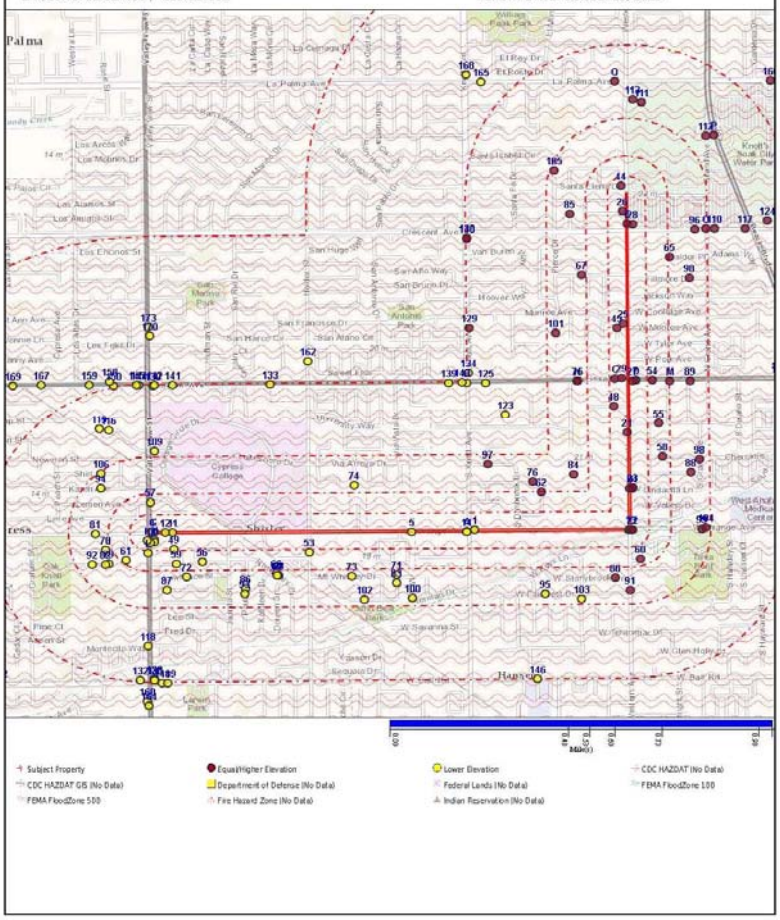
PREPARED FOR: Envirosite
ORDER #: 2452
REPORT DATE: October 15, 2015



AREA MAP

SUBJECT NAME: Orange Western Sub-Truck
ADDRESS: Orange Avenue, Anaheim, CA 92804
LAT/LONG: 33.827655 / -118.010392

PREPARED FOR: Envirosite
ORDER #: 2452
REPORT DATE: October 15, 2015



Map Findings Summary does not include summary of Map Layers Data.

STANDARD ENVIRONMENTAL RECORDS

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL CERCLIS LIST								
CERCLIS		0.500	0	0	0	NR	NR	0
CERCLIS NFRAP		0.500	0	0	0	NR	NR	0
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	0	0	0	0	NR	0
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	NR	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL ERNS LIST								
ERNS		SP	NR	NR	NR	NR	NR	0
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	NR	NR	0
FED I C		0.500	0	0	0	NR	NR	0
FED-PUBLISHED INSTITUTIONAL CONTROLS		0.500	0	0	0	NR	NR	0
RCRA IC_EC		0.250	0	0	NR	NR	NR	0
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	NR	0
NPL LIENS		SP	NR	NR	NR	NR	NR	0
PART NPL		1.000	0	0	0	0	NR	0
PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL RCRA GENERATORS LIST								
RCRA_CESQG		0.250	1	0	NR	NR	NR	1
RCRA_LQG		0.250	0	0	NR	NR	NR	0
RCRA_SQG		0.250	4	1	NR	NR	NR	5

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
RCRA_TSDF		0.500	0	0	0	NR	NR	0
STATE AND TRIBAL REGISTERED STORAGE TANK LISTS								
FEMA UST		0.250	0	0	NR	NR	NR	0
INDIAN UST R1		0.250	0	0	NR	NR	NR	0
INDIAN UST R10		0.250	0	0	NR	NR	NR	0
INDIAN UST R2		0.250	0	0	NR	NR	NR	0
INDIAN UST R4		0.250	0	0	NR	NR	NR	0
INDIAN UST R5		0.250	0	0	NR	NR	NR	0
INDIAN UST R6		0.250	0	0	NR	NR	NR	0
INDIAN UST R7		0.250	0	0	NR	NR	NR	0
INDIAN UST R8		0.250	0	0	NR	NR	NR	0
INDIAN UST R9		0.250	0	0	NR	NR	NR	0
AST - CA		0.250	1	0	NR	NR	NR	1
AST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_ORANGE COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
BP HW OUT_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0
BUSINESS INVENTORY_SAN MATEO COUNTY - CA		0.250	0	0	NR	NR	NR	0
CLOSED UST_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
CS_PLACER COUNTY - CA		1.000	0	0	0	0	NR	0
FID UST - CA		0.250	5	1	NR	NR	NR	6
HIST UST - CA		0.250	8	4	NR	NR	NR	12
LOP_SANTA CLARA COUNTY - CA		0.500	0	0	0	NR	NR	0
SITE LIST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST - CA		0.250	5	1	NR	NR	NR	6
UST_ALAMEDA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF LONG BEACH - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF TORRANCE - CA		0.250	0	0	NR	NR	NR	0
UST_EL SEGUNDO CITY - CA		0.250	0	0	NR	NR	NR	0
UST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MARIN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_NAPA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_ORANGE COUNTY - CA		0.250	3	0	NR	NR	NR	3
UST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_RIVERSIDE COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN FRANCISCO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN JOAQUIN COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
UST_SOLANO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SUTTER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	NR	NR	NR	NR	NR	0
STATE AND TRIBAL LEAKING STORAGE TANK LISTS								
INDIAN LUST R1		0.500	0	0	0	NR	NR	0
INDIAN LUST R10		0.500	0	0	0	NR	NR	0
INDIAN LUST R2		0.500	0	0	0	NR	NR	0
INDIAN LUST R4		0.500	0	0	0	NR	NR	0
INDIAN LUST R5		0.500	0	0	0	NR	NR	0
INDIAN LUST R6		0.500	0	0	0	NR	NR	0
INDIAN LUST R7		0.500	0	0	0	NR	NR	0
INDIAN LUST R8		0.500	0	0	0	NR	NR	0
INDIAN LUST R9		0.500	0	0	0	NR	NR	0
LUST ORANGE COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST REG 1 - CA		0.500	0	0	0	NR	NR	0
LUST REG 2 - CA		0.500	0	0	0	NR	NR	0
LUST REG 3 - CA		0.500	0	0	0	NR	NR	0
LUST REG 4 - CA		0.500	0	0	0	NR	NR	0
LUST REG 5 - CA		0.500	0	0	0	NR	NR	0
LUST REG 6 - CA		0.500	0	0	0	NR	NR	0
LUST REG 7 - CA		0.500	0	0	0	NR	NR	0
LUST REG 8 - CA		0.500	8	3	20	NR	NR	31
LUST REG 9 - CA		0.500	0	0	0	NR	NR	0
LUST_HAZMAT_YOLO COUNTY - CA		0.500	0	0	0	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LUST_KERN COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_RIVERSIDE COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN FRANCISCO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN MATEO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SOLANO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SONOMA COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SUTTER COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
SLIC REG 1 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 2 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 3 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 4 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 5 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 6 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 7 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 8 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 9 - CA		0.500	0	0	0	NR	NR	0
SLIC_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
CORRECTIVE ACTION_RIVERSIDE COUNTY - CA		1.000	0	0	0	0	NR	0
TOXIC SITE_SACRAMENTO COUNTY - CA		1.000	0	0	0	0	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
LF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
LF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF/LF - CA		0.500	1	0	0	NR	NR	1
SWF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT NPL								
RESPONSE - CA		1.000	0	0	0	0	NR	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
TOXIC PITS - CA		1.000	0	0	0	0	NR	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - CA		0.500	0	0	0	NR	NR	0
OTHER ASCERTAINABLE RECORDS								
RCRA_FULL_DETAIL		0.250	0	0	NR	NR	NR	0
RCRA_NONGEN		0.250	0	0	NR	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
INDIAN ODI R8		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIBAL ODI		0.500	0	0	0	NR	NR	0
HAULERS - CA		0.500	0	0	0	NR	NR	0
SWRCY - CA		0.500	0	0	0	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LOCAL BROWNFIELD LISTS								
FED BROWNFIELDS		0.500	0	0	0	NR	NR	0
TRIBAL BROWNFIELDS		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	NR	NR	NR	NR	NR	0
US HIST CDL		SP	NR	NR	NR	NR	NR	0
CALARP_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
CASE LIST_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
CDL - CA		SP	NR	NR	NR	NR	NR	0
CS_NAPA COUNTY - CA		0.500	0	0	0	NR	NR	0
SCH - CA		0.250	0	0	NR	NR	NR	0
LOCAL LAND RECORDS								
LIENS 2		SP	NR	NR	NR	NR	NR	0
DEED - CA		0.500	0	0	0	NR	NR	0
LIENS - CA		SP	NR	NR	NR	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
ENVIROSTOR - CA		1.000	0	0	2	2	NR	4
RECORDS OF EMERGENCY RELEASE REPORTS								
INDUSTRIAL CLEANUP_ORANGE COUNTY - CA		0.125	1	NR	NR	NR	NR	1
LDS - CA		SP	NR	NR	NR	NR	NR	0
MCS - CA		1.000	0	0	0	0	NR	0
SML_LOS ANGELES COUNTY - CA		0.125	0	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
OTHER ASCERTAINABLE RECORDS								
AFS		SP	NR	NR	NR	NR	NR	0
BRS		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT GIS		SP	NR	NR	NR	NR	NR	0
COAL ASH DOE		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL GAS		1.000	0	0	0	0	NR	0
CONSENT (DECREES)		1.000	0	0	0	0	NR	0
DIGITAL OBSTACLE		1.000	0	1	3	2	NR	6
DOD		1.000	0	0	0	0	NR	0
DOT OPS		SP	NR	NR	NR	NR	NR	0
ENOI		SP	NR	NR	NR	NR	NR	0
FA HWF		SP	NR	NR	NR	NR	NR	0
FEDLAND		1.000	0	0	0	0	NR	0
FRS		SP	NR	NR	NR	NR	NR	0
FTTS		SP	NR	NR	NR	NR	NR	0
FTTS INSP		SP	NR	NR	NR	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
ICIS		SP	NR	NR	NR	NR	NR	0
INDIAN RESERVATION		1.000	0	0	0	0	NR	0
LEAD_SMELTER		SP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
MLTS		SP	NR	NR	NR	NR	NR	0
OSHA		SP	NR	NR	NR	NR	NR	0
PADS		SP	NR	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
PCB TRANSFORMER		SP	NR	NR	NR	NR	NR	0
RAATS		SP	NR	NR	NR	NR	NR	0
RADINFO		SP	NR	NR	NR	NR	NR	0
RMP		0.500	0	0	0	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.250	0	0	NR	NR	NR	0
SSTS		SP	NR	NR	NR	NR	NR	0
TOSCA-CHEMICAL		SP	NR	NR	NR	NR	NR	0
TOSCA-PLANT		SP	NR	NR	NR	NR	NR	0
TRANSMISSIONS		1.000	0	0	0	0	NR	0
TRIS		SP	NR	NR	NR	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
AOC_SAN GABRIEL VALLEY - CA		0.500	0	0	0	NR	NR	0
BOND EXPENDITURE PLAN - CA		1.000	0	0	0	0	NR	0
CHMIRS - CA		SP	NR	NR	NR	NR	NR	0
CORTESE - CA		0.500	0	0	0	NR	NR	0
CUPA_FRESNO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DAYCARE - CA		SP	NR	NR	NR	NR	NR	0
DRYCLEANERS - CA		0.250	2	0	NR	NR	NR	2
DRYCLEANERS_AMADOR COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_ANTELOPE VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BAY AREA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BUTTE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_CALAVERAS COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_COLUSA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EASTERN KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EL DORADO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_FEATHER RIVER - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GLENN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GREAT BASIN UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_IMPERIAL COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LAKE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LASSEN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MOJAVE DESERT - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MONTEREY BAY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTH COAST UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SIERRA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN JOAQUIN VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN LOUIS OBISPO - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SANT A BARBARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SHAS TA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SISK IYOU COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SOUT H COAST - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_TEHA MA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_TUOL UMNE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_VENT URA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_YOLO -SOLANO COUNTIES - CA		0.250	0	0	NR	NR	NR	0
EMI - CA		SP	NR	NR	NR	NR	NR	0
FA - CA		SP	NR	NR	NR	NR	NR	0
FA 2 - CA		SP	NR	NR	NR	NR	NR	0
GCC_SANTA CLARA VALLEY - CA		0.500	0	0	0	NR	NR	0
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA		0.500	0	0	0	NR	NR	0
HAZMAT_CITY OF SAN JOSE - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
HAZMAT_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN BERNARDINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SANTA CLARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZNET - CA		0.250	27	36	NR	NR	NR	63
HAZWASTE_ORANGE COUNTY - CA		1.000	3	0	13	41	NR	57
HIGH FIRE - CA		1.000	0	0	0	0	NR	0
HIST CORTESE - CA		0.500	0	0	0	NR	NR	0
HMS_LOS ANGELES COUNTY - CA		0.250	0	0	NR	NR	NR	0
HWM COMMERCIAL FACILITIES - CA		0.250	0	0	NR	NR	NR	0
HWP - CA		1.000	0	0	0	0	NR	0
HWT - CA		0.250	0	0	NR	NR	NR	0
LUFT_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
MWMP - CA		0.250	0	0	NR	NR	NR	0
NFA - CA		0.500	0	0	1	NR	NR	1
NFE - CA		0.500	0	0	0	NR	NR	0
PERCHLORATE 2 - CA		0.500	0	0	0	NR	NR	0
PROPOSITION 65 - CA		1.000	0	0	0	0	NR	0
RFR - CA		SP	NR	NR	NR	NR	NR	0
SITES INVENTORY_VENTURA COUNTY - CA		1.000	0	0	0	0	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
SWAT - CA		SP	NR	NR	NR	NR	NR	0
VCCP_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
WDS - CA		SP	NR	NR	NR	NR	NR	0
WILDLANDS - CA		1.000	0	0	0	0	NR	0
WIP - CA		0.250	0	0	NR	NR	NR	0

NOTES:

SP - Subject Property

NR - Not Requested at this search distance

Sites may be listed in more than one database

Government Records Report | 2015

Order Number: 2453
Report Generated: 10/15/2015

Project Name: OCSD Rehabilitation of Western Regional Sewers
Project Number: W9X99300

Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside Reli
Los Alamitos Blvd
Los Alamitos, CA

1175 Post Road East
Westport, CT 06880
Toll Free: 866-211-2028
www.envirositecorp.com

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Envirosite Corporation appreciates your business.
Please contact your Envirosite Corporation customer service representative at 866-211-2028 with any questions.

A search of available environmental records was conducted by Envirosite Corporation. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for all Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed from the evaluation of environmental risks associated with a parcel of real estate. Executive Summary does not include a summary of report findings related to the selected Map Layers, this information is contained in the Map Findings section as well as being displayed on appropriate maps.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside
Reli
Los Alamitos Blvd
Los Alamitos, CA

COORDINATES:

Latitude (North):	33.820974 - 33° 49' 15.5"
Longitude (West):	-118.050881 - -118° 3' 3.2"
Universal Transverse Mercator:	Zone 11N
UTM X (Meters):	402748.25
UTM Y (Meters):	3742802.62
Elevation:	31.001 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 33118g1 LOS ALAMITOS, CA
Most Recent Revision: 2012

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

DATABASE(S) WITH NO MAPPED SITES:

No mapped sites were found in Envirosite Corporation's Search of available ("Reasonable ascertainable") government records either on the subject property or within the search radius around the subject property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

FEDERAL CERCLIS LIST

CERCLIS	Comprehensive Environmental Response Compensation and Liability Act
FEDERAL FACILITY	Federal Facility sites

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
FED-PUBLISHED INSTITUTIONAL CONTROLS	Published Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL LIENS	National Priority List Liens
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List

FEDERAL RCRA GENERATORS LIST

RCRA_CESQG	Resource Conservation and Recovery Act_Conditionally Exempt Small Quantity Generators

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST	FEMA Underground Storage Tanks
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST_CONTRA COSTA COUNTY - CA	Contra Costa County Aboveground Storage Tanks
AST_KERN COUNTY - CA	Kern County Aboveground Storage Tanks
AST_PLACER COUNTY - CA	Placer County Aboveground Storage Tanks
AST_YOLO COUNTY - CA	Yolo County Above Ground Storage Tanks
BP HW OUT_VENTURA COUNTY - CA	Ventura County Business Plan Hazardous Waste Producers and Operating Underground Tanks
BUSINESS INVENTORY_SAN MATEO COUNTY - CA	San Mateo County List of Underground Storage Tanks Hazardous Materials Business Plan and Hazardous Waste Generators
CLOSED UST_VENTURA COUNTY - CA	Ventura County Closed Underground Storage Tanks
CS_PLACER COUNTY - CA	Placer County Cleanup Sites
LOP_SANTA CLARA COUNTY - CA	Santa Clara County Local Oversight Program

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

SITE LIST_CONTRA COSTA COUNTY - CA	Contra Costa County Sites List
UST_ALAMEDA COUNTY - CA	Alameda County Underground Storage Tanks
UST_CITY OF LONG BEACH - CA	City of Long Beach Underground Storage Tanks
UST_CITY OF TORRANCE - CA	City of Torrance Underground Storage Tanks
UST_EL SEGUNDO CITY - CA	City of El Segundo Underground Storage Tanks
UST_KERN COUNTY - CA	Kern County Underground Storage Tanks
UST_MARIN COUNTY - CA	Marin County Underground Storage Tanks
UST_MENDOCINO COUNTY - CA	Mendocino County Underground Storage Tanks
UST_NAPA COUNTY - CA	Underground storage tank sites located in Napa county.
UST_PLACER COUNTY - CA	Placer County Underground Storage Tanks
UST_RIVERSIDE COUNTY - CA	Riverside County Underground Storage Tanks
UST_SAN FRANCISCO COUNTY - CA	San Francisco County Underground Storage Tanks
UST_SAN JOAQUIN COUNTY - CA	San Joaquin County Underground Storage Tanks
UST_SOLANO COUNTY - CA	Solano County Underground Storage Tanks
UST_SUTTER COUNTY - CA	Sutter County Underground Storage Tanks
UST_YOLO COUNTY - CA	Yolo County Underground Storage Tanks

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
LUST ORANGE COUNTY - CA	Orange County Leaking Underground Storage Tanks
LUST REG 1 - CA	Region 1 Leaking Underground Storage Tanks
LUST REG 2 - CA	Region 2 Leaking Underground Storage Tanks
LUST REG 3 - CA	Region 3 Leaking Underground Storage Tanks
LUST REG 5 - CA	Region 5 Leaking Underground Storage Tanks
LUST REG 6 - CA	Region 6 Leaking Underground Storage Tanks
LUST REG 7 - CA	Region 7 Leaking Underground Storage Tanks
LUST REG 9 - CA	Region 9 Leaking Underground Storage Tanks
LUST_HAZMAT_YOLO COUNTY - CA	Yolo County Leaking Underground Storage tanks
LUST_KERN COUNTY - CA	Kern County leaking underground tank sites
LUST_RIVERSIDE COUNTY - CA	Riverside County Leaking Underground Storage Tanks
LUST_SAN FRANCISCO COUNTY - CA	listing of leaking underground storage tanks
LUST_SAN MATEO COUNTY - CA	San Mateo County Leaking Underground Storage Tanks
LUST_SOLANO COUNTY - CA	Solano County Leaking Underground Storage Tanks

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST_SONOMA COUNTY - CA	Sonoma County Leaking Underground Storage Tanks
LUST_SUTTER COUNTY - CA	Sutter County Leaking Underground Storage Tanks
LUST_VENTURA COUNTY - CA	Ventura County Leaking Underground Storage Tanks
SLIC REG 1 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 2 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 3 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 4 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 5 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 6 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 7 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 9 - CA	Spills Leaks Investigation & Cleanup Program
SLIC_ALAMEDA COUNTY - CA	Alameda County Spills Leaks Investigation & Cleanup

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

CORRECTIVE ACTION_RIVERSIDE COUNTY - CA	Riverside County Corrective Action Sites
TOXIC SITE_SACRAMENTO COUNTY - CA	Sacramento County Toxic Site Cleanup list

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

LF_LOS ANGELES COUNTY - CA	City of Los Angeles Landfills
LF_SAN DIEGO COUNTY - CA	San Diego County Landfills
SWF_LOS ANGELES COUNTY - CA	Los Angeles County solid waste facilities
SWF_SAN DIEGO COUNTY - CA	San Diego County Solid Waste Facilities.

STATE- AND TRIBAL - EQUIVALENT CERCLIS

TOXIC PITS - CA	Toxic Pits Cleanup Act

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - CA	Voluntary Cleanup Program sites

OTHER ASCERTAINABLE RECORDS

RCRA_FULL_DETAIL	Resource Conservation and Recovery Act_Full detail
RCRA_NONGEN	Resource Conservation and Recovery Act_Non Generators

ADDITIONAL ENVIRONMENTAL RECORDS

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Sites
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
SWRCY - CA	Recyclers

LOCAL BROWNFIELD LISTS

FED BROWNFIELDS	Federal Brownfields
TRIBAL BROWNFIELDS	Tribal Brownfields

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs
CALARP_KERN COUNTY - CA	HazMat Chemical Facility List
CASE LIST_SAN DIEGO COUNTY - CA	San Diego County Environmental Case List
CDL - CA	Clandestine Drug Labs
CS_NAPA COUNTY - CA	Contaminated Sites
SCH - CA	School Property Evaluation Program

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
DEED - CA	Deeds
LIENS - CA	Liens

RECORDS OF EMERGENCY RELEASE REPORTS

LDS - CA	Land Disposal Sites
MCS - CA	Military Cleanup Sites
SML_LOS ANGELES COUNTY - CA	Los Angeles County Emergency Response session spills

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
BRS	Biennial Reporting Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
CDC HAZDAT GIS	Hazardous Substance Release/Health Effects Database GIS Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
COAL GAS	Coal Gas Plants
CONSENT (DECREES)	Superfund Consent Decree
DOT OPS	Department of Transportation Office of Pipeline Safety
ENOI	Electronic Notice of Intent
FA HWF	Financial Assurance for Hazardous Waste Facilities
FTTS	FIFRA/TSCA Tracking System
FUDS	Formerly Used Defense Sites
ICIS	Integrated Compliance Information System
INDIAN RESERVATION	Indian Reservations
LEAD_SMELTER	Lead Smelter Sites
LUCIS	Land Use Control Information Systems
MINES	Mines
MLTS	Material Licensing Tracking Systems
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyls Transformers
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SSTS	Section 7 Tracking Systems
TOSCA-CHEMICAL	Toxic Substance Control Act: Chemicals
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRANSMISSIONS	Electrical Transmissions
TRIS	Toxic Release Inventory Systems
UMTRA	Uranium Mill Tailing Sites
AOC_SAN GABRIEL VALLEY - CA	San Gabriel Valley Superfund
BOND EXPENDITURE PLAN - CA	Bond Expenditure Plan
CHMIRS - CA	California Hazardous Material Incident Report System
CORTESE - CA	The Hazardous Waste and Substances Sites List
CUPA_FRESNO COUNTY - CA	Fresno County Certified Unified Program Agency
DRYCLEANERS_AMADOR COUNTY - CA	Amador County Drycleaners
DRYCLEANERS_ANTELOPE VALLEY - CA	Antelope Valley Drycleaners
DRYCLEANERS_BAY AREA - CA	Bay Area Drycleaners
DRYCLEANERS_BUTTE COUNTY - CA	Butte County Drycleaners
DRYCLEANERS_CALAVERAS COUNTY - CA	Calaveras County Drycleaners
DRYCLEANERS_COLUSA COUNTY - CA	Colusa County Drycleaners
DRYCLEANERS_EASTERN KERN COUNTY - CA	Eastern Kern County Drycleaners
DRYCLEANERS_EL DORADO COUNTY - CA	El Dorado County Drycleaners
DRYCLEANERS_FEATHER RIVER - CA	Feather River Drycleaners
DRYCLEANERS_GLENN COUNTY - CA	Glenn County Drycleaners
DRYCLEANERS_GREAT BASIN UNIFIED - CA	Great Basin Unified Drycleaners
DRYCLEANERS_IMPERIAL COUNTY - CA	Imperial County Drycleaners
DRYCLEANERS_LAKE COUNTY - CA	Lake County Drycleaners
DRYCLEANERS_LASSEN COUNTY - CA	Lassen County Drycleaners
DRYCLEANERS_MENDOCINO COUNTY - CA	Mendocino County Drycleaners
DRYCLEANERS_MOJAVE DESERT - CA	Mojave Desert Drycleaners
DRYCLEANERS_MONTEREY BAY - CA	Monterey Bay Drycleaners
DRYCLEANERS_NORTH COAST UNIFIED - CA	North Coast Unified Drycleaners
DRYCLEANERS_NORTHERN SIERRA - CA	Northern Sierra Drycleaners
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA	Northern Sonoma County Drycleaners
DRYCLEANERS_PLACER COUNTY - CA	Placer County Drycleaners
DRYCLEANERS_SACRAMENTO COUNTY - CA	Sacramento County Drycleaners

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_SAN DIEGO COUNTY - CA	San Diego County Drycleaners
DRYCLEANERS_SAN JOAQUIN VALLEY - CA	San Joaquin Valley Drycleaners
DRYCLEANERS_SAN LOUIS OBISPO - CA	San Louis Obispo Drycleaners
DRYCLEANERS_SANTA BARBARA COUNTY - CA	Santa Barbara Drycleaners
DRYCLEANERS_SHASTA COUNTY - CA	Shasta County Drycleaner
DRYCLEANERS_SISKIYOU COUNTY - CA	Siskiyou County Drycleaners
DRYCLEANERS_TEHAMA COUNTY - CA	Tehama County Drycleaners
DRYCLEANERS_TUOLUMNE COUNTY - CA	Tuolumne County Drycleaners
DRYCLEANERS_VENTURA COUNTY - CA	Ventura County Drycleaners
DRYCLEANERS_YOLO-SOLANO COUNTIES - CA	Yolo and Solano Counties Drycleaners
EMI - CA	Emissions Inventory Data
FA - CA	Financial Assurance
FA 2 - CA	Solid Waste Facility Financial Assurance
GCC_SANTA CLARA VALLEY - CA	Santa Clara Valley Groundwater Contamination Cleanups
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA	Contra Costa County Hazardous Materials Incident list
HAZMAT_CITY OF SAN JOSE - CA	City of San Jose Hazardous Material Facilities
HAZMAT_SACRAMENTO COUNTY - CA	Sacramento County Master Hazardous Materials Facility list
HAZMAT_SAN BERNARDINO COUNTY - CA	San Bernardino County Hazardous Material Permits
HAZMAT_SAN DIEGO COUNTY - CA	Hazardous Materials Management Division Database
HAZMAT_SANTA CLARA COUNTY - CA	Santa Clara County Hazardous Material Facilities
HIGH FIRE - CA	Fire Hazard Severity Zones
HMS_LOS ANGELES COUNTY - CA	Los Angeles County Street Number List
HWM COMMERCIAL FACILITIES - CA	Hazardous Waste Management Commercial Facilities
HWT - CA	Hazardous Waste Transporters
LUFT_ALAMEDA COUNTY - CA	Alameda County Leaking Underground Fuel Tanks
MWMP - CA	Medical Waste Management Program
PERCHLORATE 2 - CA	Perchlorate contaminted sites
PROPOSITION 65 - CA	Proposition 65 Records
RFR - CA	Regulated Facility Report
SITES INVENTORY_VENTURA COUNTY - CA	Ventura County Inventory of Closed Illegal Abandoned and Inactive Sites
SWAT - CA	SWAT - CA
VCCP_VENTURA COUNTY - CA	Ventura County County Cleanup Program
WDS - CA	Waste Discharge System
WILDLANDS - CA	Preserves List
WIP - CA	Well Investigation Program

SURROUNDING SITES: SEARCH RESULTS:

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

FEDERAL CERCLIS LIST

CERCLIS NFRAP: Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned sites that have been removed and archived

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FEDERAL MOGUL CORP-ARROWHEAD PRODUCTS	4411 KATELLA	SSW / 0.084 mi.	***Y106***	***149***
MERCURY RENTALS	4664 LINCOLN	N / 0.277 mi.	***BL212***	***250***

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SAFETY KLEEN CORP 7 088 05	***3876 FLORISTA ST***	***SW / 0.521 mi.***	***BT266***	***329***

FEDERAL RCRA GENERATORS LIST

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BEARING INSPECTION, INC.	***4422 CORPORATE CENTER DR***	***SSW / 0.110 mi.***	***V82***	***106***
BEARING INSPECTION INC	***4422 CORPORATE CTR DR***	***SSW / 0.110 mi.***	***V84***	***112***
ARROWHEAD PRODUCTS CORPORATION	***4411 KATELLA AVE***	***SSW / 0.084 mi.***	***Y105***	***129***
MACRO Z TECH CO	***4761 LINCOLN AVE***	***N / 0.240 mi.***	***BI202***	***238***

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
GREEN WORLD CLEANERS	4941 AND 4961 ORANGE AVE	NE / 0.002 mi.	***B18***	***50***
AUTO CARE STATION	5022 CRESCENT	NNE / 0.021 mi.	***Q36***	***64***
ALLIANCE SPACESYSTEMS LLC	4398 CORPORATE CENTER DR	SSW / 0.084 mi.	***S44***	***73***

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BEARING INSPECTION INC	***4422 CORPORATE CTR DR***	***SSW / 0.110 mi.***	*V84*	*112*
SUNSET CONSTRUCTION	10542 CALLE LEE UNIT 114	SSW / 0.158 mi.	*123*	*165*
SCREEN GEMS	10571 CALLE LEE UNIT 145	SSW / 0.162 mi.	*127*	*169*
UNITED TECHNOLOGIES	10641 CALLE LEE UNIT 185	SSW / 0.163 mi.	*128*	*171*
CYPRESS VOLKSWAGEN	5120 LINCOLN AVE	NNE / 0.111 mi.	*W132*	*174*
CITY OF LA PALMA	8415 MEADOWLARK LANE	N / 0.146 mi.	*BA154*	*192*
DIVERSICARE	4290 KATELLA AVE	SSW / 0.149 mi.	*158*	*197*
CARLSON GARAGE	5131 LINCOLN	NE / 0.150 mi.	*BB159*	*199*
MAGIC CLEANERS	4276 KATELLA AVE	SSW / 0.161 mi.	*BH169*	*208*
EVERGREEN PHARMACEUTICAL OF CALIFORNIA DBA PHARMACY ADVANTAGE	10751 NOEL ST	SSW / 0.228 mi.	*176*	*214*
MACRO Z TECH CO	***4761 LINCOLN AVE***	***N / 0.240 mi.***	*BI202*	*238*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

AST - CA: Listing of tank facilities that are subject to the California Aboveground Petroleum Storage Act

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	4411 KATELLA AVE	SSW / 0.088 mi.	*Z111*	*157*

AST_ORANGE COUNTY - CA: Orange county aboveground storage tanks

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JIFFY LUBE #851	4942 LINCOLN AVE	NNE / 0.040 mi.	*G54*	*83*
ARROWHEAD PRODUCTS	4411 KATELLA AVE	SSW / 0.088 mi.	*Z113*	*158*

FID UST - CA: The State Water Resource Control Board's Facility Inventory Database underground storage tank locations listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS SCHOOL DISTRICT	***9470 MOODY ST***	***NE / 0.000 mi.***	*D4*	*40*
A J'S AUTOMOTIVE	***8980 MOODY ST***	***NNE / 0.000 mi.***	*N10*	*45*
MEPCO	***5022 CRESCENT AVE***	***NNE / 0.021 mi.***	*Q37*	*66*
ARCO #1738	***5012 LINCOLN AVE***	***NNE / 0.025 mi.***	*J38*	*67*
CYPRESS GOLF COURSE	***4561 KATELLA AVE***	***S / 0.026 mi.***	*41*	*70*
JIFFY LUBE	***4942 LINCOLN AVE***	***NNE / 0.040 mi.***	*G59*	*87*
ATLAS TRANSMISSIONS INC	***5046 LINCOLN AVE***	***NNE / 0.052 mi.***	*L79*	*104*
PARK TRAILER RV SALES	***5071 LINCOLN AVE***	***NNE / 0.075 mi.***	*95*	*122*
CYPRESS VOLKSWAGEN	***5120 LINCOLN AVE***	***NNE / 0.111 mi.***	*W133*	*176*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

FID UST - CA: The State Water Resource Control Board's Facility Inventory Database underground storage tank locations listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
MARRIOTT DISTRIBUTION CENTER	*10681 CALLE LEE*	*SSW / 0.169 mi.*	*136*	*178*
CARLSON GARAGE	*5131 LINCOLN AVE*	*NE / 0.150 mi.*	*BB161*	*201*
C T TRUCKING	*4761 LINCOLN AVE*	*N / 0.240 mi.*	*BI203*	*241*

HIST UST - CA: Historical underground storage tank listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS EGG FARM	8651 MOODY STREET	NNE / 0.004 mi.	*O20*	*52*
CERRITOS EQUIP RENTAL INC	8711 MOODY ST.	NNE / 0.005 mi.	*22*	*54*
CYPRESS SCHOOL DISTRICT	9470 MOODY STREET	NE / 0.014 mi.	*C29*	*58*
SHELL OIL COMPANY	5022 CRESCENT	NNE / 0.021 mi.	*35*	*64*
HOOSHANG TAHBAZ	5012 LINCOLN AVE	NNE / 0.043 mi.	*M64*	*91*
PARK TRAILER SALES	5061 LINCOLN AVE.	NNE / 0.043 mi.	*66*	*95*
INDIAN BAR COMPANY ARROWHEAD P	4411 KATELLA AVENUE	SSW / 0.088 mi.	*Z112*	*157*
ALNOR PUMPING AND HEATING FACIL	5042 ORANGE AVE.	ENE / 0.097 mi.	*T115*	*159*
ALNOR STORAGE AND PUMP STATION	5042 ORANGE AVE.	ENE / 0.097 mi.	*T116*	*159*
LOUSISIANA-PACIFIC CORP	4281 KATELLA AVE.	SSW / 0.146 mi.	*BF150*	*187*

UST - CA: Listing of active underground storage tank facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS SCHOOL DISTRICT	*9470 MOODY ST*	*NE / 0.000 mi.*	*D4*	*40*
A J'S AUTOMOTIVE	*8980 MOODY ST*	*NNE / 0.000 mi.*	*N10*	*45*
MEPCO	*5022 CRESCENT AVE*	*NNE / 0.021 mi.*	*Q37*	*66*
ARCO #1738	*5012 LINCOLN AVE*	*NNE / 0.025 mi.*	*J38*	*67*
CYPRESS GOLF COURSE	*4561 KATELLA AVE*	*S / 0.026 mi.*	*41*	*70*
JIFFY LUBE	*4942 LINCOLN AVE*	*NNE / 0.040 mi.*	*G59*	*87*
ATLAS TRANSMISSIONS INC	*5046 LINCOLN AVE*	*NNE / 0.052 mi.*	*L79*	*104*
PARK TRAILER RV SALES	*5071 LINCOLN AVE*	*NNE / 0.075 mi.*	*95*	*122*
CYPRESS VOLKSWAGEN	*5120 LINCOLN AVE*	*NNE / 0.111 mi.*	*W133*	*176*
MARRIOTT DISTRIBUTION CENTER	*10681 CALLE LEE*	*SSW / 0.169 mi.*	*136*	*178*
CARLSON GARAGE	*5131 LINCOLN AVE*	*NE / 0.150 mi.*	*BB161*	*201*
C T TRUCKING	*4761 LINCOLN AVE*	*N / 0.240 mi.*	*BI203*	*241*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

UST_ORANGE COUNTY - CA: Orange county underground storage tanks

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
GALAXY CYPRESS CHEVRON	*4992 LINCOLN AVE*	*NNE / 0.019 mi.*	*I34*	*64*
CASPIAN SEA PETROLEUM INC	*5012 LINCOLN AVE*	*NNE / 0.025 mi.*	*J39*	*67*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

LUST REG 4 - CA: Leaking underground storage tanks in Region 4: Los Angeles Ventura counties (Small parts of Kern and Santa Barbara counties).

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JOHN PHU & VIVIAN LAM	22429 S BLOOMFIELD AVE	WNW / 0.493 mi.	*252*	*319*

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS EGG FARM	8651 MOODY	NNE / 0.004 mi.	*O21*	*52*
CYPRESS SCHOOL DISTRICT	9470 MOODY	NE / 0.014 mi.	*C30*	*58*
JOHNS RESTAURANT (FORMER SHELL)	4499 CERRITOS	SSW / 0.028 mi.	*47*	*78*
CYPRESS AUTO CENTER	5046 LINCOLN	NNE / 0.043 mi.	*63*	*89*
ARCO #1738	5012 LINCOLN	NNE / 0.043 mi.	*M65*	*91*
MEPCO GAS	5022 CRESCENT	NNE / 0.046 mi.	*72*	*98*
MARRIOTT DISTRIBUTION	10681 CALLE LEE	SSW / 0.144 mi.	*110*	*155*
CYPRESS VOLKSWAGEN	5120 LINCOLN	NNE / 0.100 mi.	*120*	*161*
PARK TRAILER SALES	5071 LINCOLN	NNE / 0.100 mi.	*U121*	*163*
DOMINION PROPERTY	4281 KATELLA	SSW / 0.146 mi.	*BF151*	*187*
CARLSON GARAGE	5131 LINCOLN	NE / 0.158 mi.	*BD166*	*204*
C T TRUCKING	4761 LINCOLN	N / 0.238 mi.	*200*	*236*
DELANEY SASH & DOOR	10850 PORTAL	SSW / 0.317 mi.	*205*	*243*
CITY OF CYPRESS CORPORATION YARD	5285 CYPRESS	NE / 0.273 mi.	*BJ208*	*245*
CITY OF CYPRESS MAINTENANCE YARD	5285 CYPRESS	NE / 0.273 mi.	*BJ209*	*248*
FORMER MERCURY RENTALS INC	4664 LINCOLN	N / 0.296 mi.	*215*	*254*
CYPRESS GOLF CLUB	4921 KATELLA	S / 0.364 mi.	*216*	*261*
GOODYEAR	4005 BALL	WSW / 0.371 mi.	*218*	*264*
SUBURBAN RENTALS	5302 LINCOLN	NE / 0.330 mi.	*223*	*268*
HYATT DIE CAST AND ENGINEERING	4656 LINCOLN	N / 0.354 mi.	*BN226*	*271*
SYSTEM REEFER SERVICE	4614 LINCOLN	N / 0.354 mi.	*BN227*	*277*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
HANSEN AUTO TOWING	4620 LINCOLN	N / 0.354 mi.	*BN228*	*278*
BERWICK RADIATOR	5351 LINCOLN	NE / 0.388 mi.	*BO233*	*283*
FORMER P & M SERVICE STATION	5371 LINCOLN	NE / 0.388 mi.	*BO234*	*285*
WATSON MINI STORAGE	8882 WATSON	NE / 0.389 mi.	*235*	*286*
KEN THOMPSON INC	8851 WATSON	NE / 0.389 mi.	*236*	*288*
ORANGE COUNTY FIRE STATION #17	4991 CERRITOS	SSE / 0.483 mi.	*241*	*291*
ARCO #1973	4988 BALL	SE / 0.486 mi.	*242*	*294*
UNOCAL	5001 BALL	SE / 0.486 mi.	*BP243*	*297*
UNOCAL # 5330	5001 BALL	SE / 0.486 mi.	*BP244*	*299*
FORMER CHEVRON 9-8145	3997 BALL	WSW / 0.486 mi.	*BQ245*	*300*
SHELL OIL	4001 BALL	WSW / 0.486 mi.	*BQ246*	*304*
TOSCO - 76 #5792	4002 BALL	WSW / 0.486 mi.	*247*	*309*
L & S PROPERTY MANAGEMENT	10621 BLOOMFIELD	SW / 0.489 mi.	*248*	*313*
OROWHEAT	10751 BLOOMFIELD	SW / 0.489 mi.	*249*	*315*
OLTMAN'S CONSTRUCTION COMPANY	10801 BLOOMFIELD ST	SW / 0.489 mi.	*250*	*316*
TRUCK GEARS, INC.	3882 FLORISTA ST	SW / 0.490 mi.	*251*	*318*
TEXACO OIL	5471 LINCOLN	NE / 0.445 mi.	*257*	*324*

SLIC REG 8 - CA: GeoTracker Site Cleanup Program (formerly known as SLIC) database listing in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
MAGIC CLEANERS	4276 KATELLA AVENUE	SSW / 0.146 mi.	*153*	*190*
KON TIKI CLEANERS	4065 BALL ROAD	WSW / 0.429 mi.	*231*	*281*

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

SWF/LF - CA: Solid Waste Information System's facility listing of solid waste facilities and landfills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CITY OF LA PALMA CORP.YARD LVTOP.	8415 MEADOWLARK LANE	N / 0.146 mi.	*BA156*	*195*
CITY OF CYPRESS MAINTENANCE YARD LVTSOP	5285 CYPRESS STREET	NE / 0.292 mi.	*214*	*253*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE- AND TRIBAL - EQUIVALENT NPL

RESPONSE - CA: State response sites with confirmed releases and potential high risk

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JOINT FORCES TRAINING BASE, LOS ALAMITOS	***LEXINGTON & FARQUHAR***	***S / 0.249 mi.***	*184*	*225*

ADDITIONAL ENVIRONMENTAL RECORDS

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

HAULERS - CA: Waste Tire Manifest Program Hauler Registration listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FOUR TIRES WHOLESALE	9386 GREGORY ST	NNE / 0.111 mi.	*134*	*177*
ECONOMY TIRES #2	5351 LINCOLN AVE	NE / 0.365 mi.	*229*	*280*

STATE- AND TRIBAL - EQUIVALENT CERCLIS

ENVIROSTOR - CA: Department of Toxic Substances Controls

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ARROWHEAD PRODUCTS	4411 KATELLA AVENUE	SSW / 0.084 mi.	*Y103*	*128*
FEDERAL MOGUL CORP - ARROWHEAD PRODUCTS	4411 KATELLA AVENUE	SSW / 0.084 mi.	*Y104*	*128*
JOINT FORCES TRAINING BASE, LOS ALAMITOS	***LEXINGTON & FARQUHAR***	***S / 0.249 mi.***	*184*	*225*
OXFORD ACADEMY	***5172 ORANGE AVENUE***	***ENE / 0.214 mi.***	*BG188*	*228*
LINCOLN AVENUE SELF STORAGE	***4664 LINCOLN***	***N / 0.277 mi.***	*BL213*	*252*
HYATT DIE CAST & ENGRG. CORP.	4656 LINCOLN AVENUE	N / 0.330 mi.	*BM220*	*266*
HYATT DIE CAST & ENGINE	***4656 LINCOLN AVE***	***N / 0.330 mi.***	*BM222*	*267*
LOS ALAMITOS ELEMENTARY SCHOOL - RAILROAD EASEMENT	***10862 BLOOMFIELD STREET***	***SW / 0.500 mi.***	*BR254*	*322*
LOS ALAMITOS ELEMENTARY SCHOOL EASEMENT	***10862 BLOOMFIELD STREET***	***SW / 0.500 mi.***	*BR255*	*323*
SAFETY-KLEEN	***3876 FLORISTA ST***	***SW / 0.521 mi.***	*BT264*	*328*
SAFETY-KLEEN LOS ALAMITOS	3876 FLORISTA ST	SW / 0.521 mi.	*BT265*	*328*
LOS ALAMITOS MEDICAL CENTER	***3876 FLORISTA STREET***	***SW / 0.521 mi.***	*BT267*	*346*
JOHN F. KENNEDY HIGH SCHOOL	***8281 WALKER STREET***	***NNE / 0.532 mi.***	*274*	*348*
LOS ALAMITOS HIGH SCHOOL	***3591 CERRITOS AVENUE***	***WSW / 0.900 mi.***	*291*	*355*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

RECORDS OF EMERGENCY RELEASE REPORTS

INDUSTRIAL CLEANUP_ORANGE COUNTY - CA: Petroleum and non-petroleum industrial spills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
PACIFIC TERMINAL ALNOR FACILITY	5042 ORANGE AVE	ENE / 0.097 mi.	*T117*	*159*
CASTER GROUP LP PROPERTY	5071 LINCOLN AVE	NNE / 0.100 mi.	*U122*	*164*
PACIFIC TERMINALS-ALNOOR FACILITY CYPRESS	5042 ORANGE AVE	ENE / 0.107 mi.	*129*	*172*

OTHER ASCERTAINABLE RECORDS

DIGITAL OBSTACLE: The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	118 03 16.39W 33 47 35.20N	S / 0.682 mi.	*280*	*351*

FRS: Facility Registry Systems

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS ELEMENTARY SD	9470 MOODY ST	NE / 0.000 mi.	*D2*	*39*

FTTS INSP: Tracking of inspections related to FIFRA/TSCA

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CYPRESS ELEMENTARY SD	9470 MOODY ST	NE / 0.000 mi.	*D6*	*42*

DAYCARE - CA: List of daycare locations

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
OC KIDS CHILDCARE INC.-LANDELL	9705 DENNI STREET	W / 0.000 mi.	*1*	*39*
OC KIDS CHILDCARE INC.	10160 DENNI STREET	SSW / 0.000 mi.	*E7*	*43*
ABC DEVELOPMENT PRESCHOOL #5	8630 MOODY ST.	NNE / 0.000 mi.	*12*	*46*

DRYCLEANERS - CA: Listing of drycleaning facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
Green World Cleaners	4941 Orange Ave	NE / 0.002 mi.	*A17*	*50*
Cypress Cleaner	4431 Cerritos Ave	SSW / 0.063 mi.	*24*	*55*
4 T Cleaners	4929 Lincoln Ave	NNE / 0.052 mi.	*80*	*105*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS - CA: Listing of drycleaning facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
MAGIC CLEANERS	4276 KATELLA AVE	SSW / 0.161 mi.	*BH168*	*208*

DRYCLEANERS_SOUTH COAST - CA: Listing of drycleaning facilities in the South Coast region

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
DIAMOND CLEANER AJAY SHAH	4760 LINCOLN AVE	NNE / 0.150 mi.	*BC162*	*201*

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
1X CYPRESS SCHOOL DISTRICT	9470 MOODY STREET	NE / 0.000 mi.	*D3*	*40*
CYPRESS SCHOOL DISTRICT	9470 MOODY ST	NE / 0.000 mi.	*D5*	*41*
A & T AUTO BODY SHOP	9091 MOODY ST	NNE / 0.000 mi.	*F9*	*44*
CUSD-CLARA J KING ELEMENTARY SCHOOL	8710 MOODY ST	NNE / 0.000 mi.	*13*	*47*
PAULS CAR WASH & LUBE CENTER	8511 MOODY ST	NNE / 0.000 mi.	*P15*	*49*
APPLIED ROTOR TECHNOLOGY	4431 CORPORATE CENTER DR.	SSW / 0.059 mi.	*19*	*51*
BEN BALSAM	4424 LARWIN AVE	SW / 0.062 mi.	*23*	*55*
HUI-MIN CHEN	4541 MYRA AVE	SSW / 0.064 mi.	*26*	*56*
BERNARDINO PERALTA	5011 NEW YORK AVE	NNE / 0.011 mi.	*27*	*57*
SANDY PALMER	11062 LEXINGTON DR	S / 0.068 mi.	*28*	*57*
KATHALYN WALLACE	4981 LEMON AVE	NE / 0.017 mi.	*31*	*60*
PETER DONATH	10192 CARY CIR	SW / 0.075 mi.	*32*	*61*
GALAXY CYPRESS CHEVRON	4992 LINCOLN AVE	NNE / 0.019 mi.	*I33*	*62*
BP WEST COAST PRODUCTS LLC 01738	5012 LINCOLN AVE	NNE / 0.025 mi.	*J40*	*68*
MDA INFORMATION SYSTEMS INC	4398 CORPORATE CENTER DR	SSW / 0.084 mi.	*S42*	*70*
ALLIANCE SPACESYSTEMS	4398 CORPORATE CENTER DR	SSW / 0.084 mi.	*S45*	*76*
TOM KELLY	10479 JEANINE LN	SSW / 0.085 mi.	*46*	*77*
SUSAN NAKAHARA	4802 ASHBURY AVE	NNE / 0.029 mi.	*48*	*79*
MARJORIE DESMET	9319 ESTHER ST	NE / 0.029 mi.	*49*	*80*
ALLIANCE SPACESYSTEMS LLC	4398 CORPORATE CENTER DR	SSW / 0.086 mi.	*50*	*81*
ALEXANDRA CORONA	4402 NESTLE AVE	SSW / 0.087 mi.	*51*	*82*
ANNIE CHO	4382 LARWIN AVE	SW / 0.090 mi.	*52*	*82*
TROUPE LLC DBA JIFFY LUBE TROUPE 851	4942 LINCOLN AVE	NNE / 0.040 mi.	*G57*	*84*
KW PACIFIC INVESTMENTS INC DBA JIFFY LUBE #851	4942 LINCOLN AVE	NNE / 0.040 mi.	*G58*	*86*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
MICHAEL RIZZO & SUSAN SINFIELD	4382 NESTLE AVE	SW / 0.098 mi.	*61*	*88*
DIANE RAYMUNDO	4527 CHELSEA CT	W / 0.042 mi.	*62*	*89*
ALICIA KIMBLE	4463 VIA LINDA	SW / 0.044 mi.	*68*	*96*
B & D AUTOMOTIVE	5040 W LINCOLN AVE	NNE / 0.045 mi.	*K70*	*97*
DAVID & MARIE CHAPMAN	5039 VIA HELENA	NNE / 0.046 mi.	*71*	*97*
CLAUDIA HORVATH	4532 MARION AVE	SSW / 0.047 mi.	*73*	*102*
HOSODA IMAGING SVC INC DBA PRINT 'N COPY CENTER	4446 CERRITOS AVE	SSW / 0.051 mi.	*H76*	*103*
WALTER DETTNER	4450 AVENIDA GRANADA	WSW / 0.052 mi.	*81*	*105*
TIMKEN BEARING INSPECTION	4422 CORPORATE CTR DR	SSW / 0.110 mi.	*V83*	*110*
MARIA DELVAUX	4615 LARWIN AVE	SSW / 0.118 mi.	*86*	*117*
GLEN BARRETT	4364 LARWIN AVE	SW / 0.121 mi.	*87*	*118*
WEI LIU	4362 NESTLE AVE	SW / 0.121 mi.	*88*	*119*
ESPERANZA SCHMIDT	4610 LARWIN AVE	SSW / 0.121 mi.	*89*	*120*
SANFORD CHAN	5064 SEQUOIA AVE	NE / 0.066 mi.	*90*	*120*
ALISON HUNTER	10152 BARBARA ANNE ST	S / 0.136 mi.	*96*	*123*
MARNA KAY STAYTON	10151 BARBARA ANNE ST	S / 0.136 mi.	*X97*	*123*
KAY STAYTEN	10151 BARBARA ANNE ST	S / 0.136 mi.	*X98*	*124*
RICHARD BUTLER	10291 BARBARA ANNE ST	S / 0.136 mi.	*99*	*125*
DON RASMUSSEN	10171 BARBARA ANNE ST	S / 0.136 mi.	*100*	*126*
THERESA FIRUS	9358 CHRISTOPHER ST	NE / 0.080 mi.	*101*	*126*
RUTH PURCELL	9319 CHRISTOPHER ST	NNE / 0.083 mi.	*102*	*127*
ARROWHEAD PRODUCTS	4411 KATELLA AVE	SSW / 0.084 mi.	*Y107*	*152*
SHERRI MISHINA	8779 LA SALLE ST.	NNE / 0.084 mi.	*108*	*153*
ANAHEIM UHSD/LEXINGTON	4351 ORANGE AVE	WNW / 0.143 mi.	*109*	*154*
RAJESH KUMAR	4922 PARK AVE	NNE / 0.089 mi.	*114*	*158*
MARK HOLMES	4331 LARWIN AVE	SW / 0.155 mi.	*118*	*160*
ANGEL HENRY	5062 MALAGA DR	NNE / 0.099 mi.	*119*	*160*
STUART HYKES	4356 AVENIDA CARMEL	WSW / 0.160 mi.	*124*	*167*
MIN YE	4644 MYRA AVE	S / 0.160 mi.	*125*	*168*
JOY WEI	9393 ETHEL STREET	NNE / 0.104 mi.	*126*	*168*
GEORGE KARAHALIOS	4461 HOWARD AVE APT 18	S / 0.167 mi.	*BE130*	*173*
GEORGE KARHALIOS TRUST 1990	4461 HOWARD AVE APT 15	S / 0.167 mi.	*BE131*	*174*
JOHN SEGURA	4902 PARK AVE	NNE / 0.112 mi.	*135*	*177*
WILLIAM GERBER	4864 GRACE AVE	N / 0.113 mi.	*137*	*178*
BONNIE MAULER	4651 GREEN AVE	S / 0.171 mi.	*138*	*179*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
HOWARD JAI	4301 MYRA AVE	SW / 0.171 mi.	*139*	*179*
HAILEN TRAN	5115 EUCALYPTUS CIR.	NE / 0.117 mi.	*140*	*180*
BILL GERBER	4854 GRACE AVE.	N / 0.121 mi.	*141*	*181*
GEORGE & CARMEN ROMERO	5012 CORDOBA CIR	NNE / 0.124 mi.	*142*	*182*
DEBORAH VANDYK	9326 GREGORY ST	NNE / 0.127 mi.	*143*	*182*
ALPESH KATAR	9175 GREGORY ST.	NNE / 0.128 mi.	*144*	*183*
PETER REED	4671 MYRA AVE	S / 0.190 mi.	*145*	*184*
ESTELLE METCALF	4535 MAYBURY CIR	NNW / 0.135 mi.	*146*	*184*
JOYCE FELICIANO	5131 ALASKA AVE	NNE / 0.139 mi.	*147*	*185*
EVERGREEN PHARMACEUTICAL OF CALIFORNIA DBA PHARMACY ADVANTAGE	10751 NOEL ST	SSW / 0.202 mi.	*148*	*186*
MATT FOUCH	9612 SALISBURY LN.	ENE / 0.145 mi.	*149*	*186*
GEORGE VELASQUEZ	4691 CATHY AVE	S / 0.203 mi.	*152*	*189*
CITY OF LA PALMA	8415 MEADOWLARK LN	N / 0.146 mi.	*BA155*	*194*
CINDI MADDEZ	5132 NEW MEXICO LN	NNE / 0.147 mi.	*157*	*197*
KATHY MAJESKI	5136 EDGEMONT CIR	ENE / 0.150 mi.	*164*	*202*
SANDRA EDMONSON	4717 LARWIN AVE.	S / 0.211 mi.	*165*	*203*
CARLSON GARAGE	5131 LINCOLN	NE / 0.158 mi.	*BD167*	*207*
PATRICIA YASUDA	8322 SPARROW LN	NNE / 0.161 mi.	*170*	*210*
GENEVA SCRIVNER	4216 VIA LARGO	WSW / 0.221 mi.	*171*	*211*
JOHN & JOAN STARK	10466 JULIE BETH CIR	S / 0.223 mi.	*172*	*211*
VICTOR HUGHES	8582 BELMONT ST	N / 0.166 mi.	*173*	*212*
JOHN & JEAN NOAH	9341 JULIE BETH ST	NNE / 0.166 mi.	*174*	*213*
GUS KINDWELLER	9357 DANBURY ST	N / 0.170 mi.	*175*	*213*
SANTA FE ELECTRIC INC	10842 NOEL ST STE 112	SSW / 0.228 mi.	*177*	*220*
CARRIE HOOPER	4253 TERESA AVE	SW / 0.233 mi.	*178*	*220*
MOON GOO LEE	9184 ETHEL ST	NNE / 0.180 mi.	*179*	*221*
LA TESTING	10772 NOEL ST	SSW / 0.239 mi.	*180*	*222*
SUSANNE DRONKERS	4252 AVENIDA MADRID	W / 0.240 mi.	*181*	*223*
PICKLE, ROBERT AND JANEEN	9331 ALDERBURY ST	N / 0.186 mi.	*182*	*224*
PAUL SHEETS	4802 MERTEN AVE	N / 0.189 mi.	*183*	*224*
HELEN MOORE	4832 PARK AVE	NNE / 0.192 mi.	*185*	*226*
MARY SCHIVER	9056 BROWNSTONE CIR	N / 0.196 mi.	*186*	*226*
WILLIAM HOLSTEY	5202 DEL SUR CIR	NNE / 0.211 mi.	*187*	*227*
ANAHEIM UHSD/OXFORD	5172 ORANGE AVE	ENE / 0.214 mi.	*BG189*	*228*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
DALE ARAKI	8565 SALISBURY LN	NNE / 0.214 mi.	*190*	*230*
RONALD RADSICK	4782 NEW MEXICO LANE	N / 0.218 mi.	*191*	*231*
PATRICIA BOGGS	5206 EDGEMONT CIR	ENE / 0.222 mi.	*192*	*231*
ALFREDO SANCHEZ	8761 SUMNER PLACE	N / 0.228 mi.	*194*	*232*
THE DIOCESE OF ORANGE	5201 EVERGREEN AVE	NE / 0.236 mi.	*197*	*234*
ANN LOSSNER	8341 SUFFIELD ST	N / 0.236 mi.	*198*	*234*
MARIE CONANT	8658 SANTA MARGARITA LN	NNE / 0.239 mi.	*201*	*237*
1X CITY OF CYPRESS	9031 GRINDLAY ST	NE / 0.247 mi.	*204*	*242*

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
A & T AUTO BODY SHOP	9091 MOODY ST	NNE / 0.000 mi.	*F8*	*43*
DDKS AUTOMOTIVE REPAIR & SERVICE	8980 MOODY ST	NNE / 0.000 mi.	*N11*	*46*
PAULS CAR WASH & LUBE CENTER	8511 MOODY ST	NNE / 0.000 mi.	*P14*	*48*
GREEN WORLD CLEANERS	4941 ORANGE AVE	NE / 0.002 mi.	*A16*	*49*
DYNALECTRIC/KDC INC	4462 CORPORATE CENTER DR	SSW / 0.063 mi.	*25*	*56*
GALAXY CYPRESS CHEVRON	***4992 LINCOLN AVE***	***NNE / 0.019 mi.***	*I34*	*64*
CASPIAN SEA PETROLEUM INC	***5012 LINCOLN AVE***	***NNE / 0.025 mi.***	*J39*	*67*
ALLIANCE SPACESYSTEMS LLC	4398 CORPORATE CENTER DR	SSW / 0.084 mi.	*S43*	*72*
VICTOR RIVERAS BODY SHOP	5033 LINCOLN AVE	NNE / 0.036 mi.	*53*	*83*
KINGS AUTO CENTER	4942 LINCOLN AVE	NNE / 0.040 mi.	*G55*	*84*
JIFFY LUBE #851	4942 LINCOLN AVE	NNE / 0.040 mi.	*G56*	*84*
ELITE IMPORTS	5036 LINCOLN AVE	NNE / 0.041 mi.	*60*	*88*
A1 AUTOMOTIVE	5038 LINCOLN AVE	NNE / 0.043 mi.	*67*	*95*
B & D AUTOMOTIVE	5040 LINCOLN AVE	NNE / 0.045 mi.	*K69*	*96*
A TO Z AUTO BODY SHOP	5042 LINCOLN AVE	NNE / 0.047 mi.	*74*	*102*
JAPANESE CAR MASTER	5044 LINCOLN AVE	NNE / 0.049 mi.	*75*	*103*
PRINT N COPY CENTER	4446 CERRITOS AVE	SSW / 0.051 mi.	*H77*	*104*
ACE TRANSMISSION	5046 LINCOLN AVE	NNE / 0.052 mi.	*L78*	*104*
TIMKEN AEROSPACE BEARING REPAIR	4422 CORPORATE CENTER DR	SSW / 0.110 mi.	*V85*	*117*
DISCOUNT TIRE CENTERS	5051 LINCOLN AVE	NNE / 0.073 mi.	*R91*	*121*
MATTS IMPORTS	5051 LINCOLN AVE	NNE / 0.073 mi.	*R92*	*121*
THE TOY SHOP	5051 LINCOLN AVE	NNE / 0.073 mi.	*R93*	*122*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
T & K AUTOMOTIVE CENTER	5051 LINCOLN AVE	NNE / 0.073 mi.	*R94*	*122*
CARLSON GARAGE	5131 LINCOLN AVE	NE / 0.150 mi.	*BB160*	*200*
DIAMOND CLEANERS	4760 LINCOLN AVE	NNE / 0.150 mi.	*BC163*	*202*
AUTO LIFT SERVICES	10764 LOS VAQUEROS CIR	SW / 0.282 mi.	*193*	*232*
FRED GUYS AUTO BODY INC	10813 LOS VAQUEROS CIR	SW / 0.286 mi.	*195*	*233*
GREEN STAR CLEANERS	4189 BALL RD	WSW / 0.290 mi.	*196*	*233*
SUPERIOR ENGINEERING	10794 LOS VAQUEROS	SW / 0.295 mi.	*199*	*235*
SCREEN GEMS SILKSCREENING COMPANY	10857 PORTAL DR	SSW / 0.322 mi.	*206*	*244*
MCI SALES AND SERVICE INC	10850 PORTAL DR	SSW / 0.326 mi.	*207*	*245*
YOUNGS AUTO SERVICE	5241 LINCOLN AVE	NE / 0.274 mi.	*BK210*	*249*
RCA AUTOMOTIVE REPAIR	5241 LINCOLN AVE	NE / 0.274 mi.	*BK211*	*250*
GOODYEAR TIRE CENTER/M&N COASTLINE AUTO	4005 BALL RD	WSW / 0.370 mi.	*217*	*264*
AMERICAN RENTALS INC	5302 LINCOLN AVE	NE / 0.317 mi.	*219*	*266*
HYATT DIE CAST & ENGINEERING	4656 LINCOLN AVE	N / 0.330 mi.	*BM221*	*267*
HANSEN AUTO BODY & PAINT	4620 LINCOLN AVE	N / 0.336 mi.	*224*	*270*
AMERICAN RV	4614 LINCOLN AVE	N / 0.345 mi.	*225*	*270*
CYPRESS GAS FOOD MART SMOG	***4900 BALL RD***	***SE / 0.427 mi.***	*230*	*281*
CROOKS TRUCK & EQUIP RENTAL	8932 WATSON ST	NE / 0.375 mi.	*232*	*282*
RITE AID #5500	4037 BALL RD	WSW / 0.452 mi.	*237*	*290*
RALPHS GROCERY #223	4033 BALL RD	WSW / 0.456 mi.	*238*	*290*
ULTIMATE AUTOHAUSE INC	4572 LINCOLN AVE	N / 0.401 mi.	*239*	*291*
UNION GAS	***4002 BALL RD***	***WSW / 0.466 mi.***	*240*	*291*
D T AUTOMOTIVE	10831 BLOOMFIELD ST	SW / 0.499 mi.	*253*	*322*
SPINELLI GRAPHICS	10631 BLOOMFIELD ST	SW / 0.501 mi.	*256*	*324*
WALGREENS #7629	5005 BALL RD	ESE / 0.504 mi.	*258*	*326*
PACIFIC COAST TOOL & DIE INC	10891 BLOOMFIELD ST	SW / 0.504 mi.	*259*	*326*
CYPRESS AUTOMOTIVE	5431 LINCOLN AVE	NE / 0.454 mi.	*260*	*326*
NORA CLEANERS	5018 BALL RD	SE / 0.513 mi.	*261*	*327*
AD'S SERVICE CENTER	3971 CERRITOS AVE	SW / 0.519 mi.	*BS262*	*327*
CIRCLE K #2211150	***3971 CERRITOS AVE***	***SW / 0.519 mi.***	*BS263*	*327*
CYPRESS AUTO BODY & PAINTING	8900 WALKER ST	NE / 0.500 mi.	*268*	*346*
ACTION ALIGNMENT	9052 WALKER ST	NE / 0.502 mi.	*269*	*347*
JACKS LAWNMOWER SHOP	9181 WALKER ST	ENE / 0.503 mi.	*270*	*347*
BROTHERS THREE AUTO REPAIR	9192 1/2 WALKER ST	ENE / 0.507 mi.	*271*	*347*
LA PALMA CLEANERS	4945 LA PALMA AVE	N / 0.508 mi.	*272*	*348*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FOREST LAWN CYPRESS	4471 LINCOLN AVE	NNW / 0.509 mi.	*273*	*348*
HASSAN AND SONS # 16	***5100 KATELLA AVE***	***SSE / 0.611 mi.***	*275*	*349*
LOS ALAMITOS RACE COURSE	4961 KATELLA AVE	SSE / 0.615 mi.	*276*	*350*
CALIFORNIA AUTO CARE	5592 LINCOLN AVE	NE / 0.577 mi.	*277*	*350*
THERMOPOWER INDUSTRIES	10570 HUMBOLT ST	SW / 0.639 mi.	*278*	*350*
TRUCK GEARS INCORPORATED	10551 HUMBOLT ST	SW / 0.664 mi.	*279*	*351*
TREND OFFSET PRINTING SERVICES	3791 CATALINA ST	SW / 0.690 mi.	*281*	*352*
WAL-MART #3099	5420 LA PALMA AVE	NNE / 0.650 mi.	*282*	*352*
A & E AUTOMOTIVE REPAIR & TOWING	5640 LINCOLN AVE	ENE / 0.666 mi.	*283*	*352*
LA PALMA 76	***5482 LA PALMA AVE***	***NNE / 0.684 mi.***	*284*	*353*
CVS PHARMACY #9575	5501 BALL RD	ESE / 0.726 mi.	*285*	*353*
INDEPENDENT CAR SPECIALISTS	11042 WINNERS CIR	SSE / 0.803 mi.	*BU286*	*353*
NORMS AUTO COLLISION CENTER	11042 WINNERS CIR	SSE / 0.803 mi.	*BU287*	*354*
ORLANDO SPRING CORPORATION	11131 WINNERS CIR	SSE / 0.806 mi.	*288*	*354*
GANAHL LUMBER CO	10722 REAGAN ST	SW / 0.849 mi.	*289*	*354*
ARCADIS US INC/THE HOME DEPOT # 6650	5800 LINCOLN AVE	ENE / 0.815 mi.	*290*	*355*
COOLANT MANAGEMENT SERVICES	11052 VIA EL MERCADO	SSE / 0.903 mi.	*292*	*356*
ACE SAW & SUPPLY	5420 KATELLA AVE	SE / 0.926 mi.	*293*	*356*
PLASTIC MOLDED COMPONENTS INC	5921 LAKESHORE DR	ENE / 0.876 mi.	*294*	*356*
GEMINI FOREST PRODUCTS	3551 BRIGGEMAN ST	WSW / 0.936 mi.	*295*	*357*
MARSHALLS #0240	5895 LINCOLN AVE	ENE / 0.881 mi.	*296*	*357*
MASTER LUBE OF CYPRESS	5904 LINCOLN AVE	ENE / 0.891 mi.	*297*	*357*
COSTCO WHOLESALE #748	5401 KATELLA AVE	SE / 0.932 mi.	*298*	*358*
PRESTIGE CLEANERS	10774 LOS ALAMITOS BLVD	SW / 0.995 mi.	*299*	*358*
TESORO SHELL # 68554	***10961 LOS ALAMITOS***	***SW / 0.942 mi.***	*300*	*358*
CAL FUEL INC	***5972 LINCOLN AVE***	***ENE / 0.971 mi.***	*302*	*359*
TRUE POSITION DIE CO	5480 KATELLA AVE	SE / 0.975 mi.	*303*	*359*
AMERICAN TIRE DEPOT	5493 CERRITOS AVE	SE / 0.979 mi.	*304*	*360*
WIRE TECH EDM INC	5450 KATELLA STE 110	SE / 0.990 mi.	*305*	*360*
ARCO #42074	***9511 VALLEY VIEW ST***	***E / 0.996 mi.***	*306*	*360*
BONDED CLEANERS AND LAUNDRY	9523 VALLEY VIEW ST	E / 0.998 mi.	*307*	*361*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
DYNAMIC AVIATION GROUP	3802 CONSTITUTION	SSW / 0.952 mi.	*301*	*359*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HIST CORTESE - CA: The historical compliance document used in providing information about the location of hazardous material release sites utilized by the state local agencies and developers

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LINCOLN AVENUE SELF STORAGE	*4664 LINCOLN*	*N / 0.277 mi.*	*BL213*	*252*
HYATT DIE CAST & ENGINE	*4656 LINCOLN AVE*	*N / 0.330 mi.*	*BM222*	*267*

HWP - CA: Facility listing of the Department of Toxic Substance Control's hazardous waste transporters and corrective action

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SAFETY-KLEEN	*3876 FLORISTA ST*	*SW / 0.521 mi.*	*BT264*	*328*

NFA - CA: No further action cleanup sites listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JOINT FORCES TRAINING BASE, LOS ALAMITOS	*LEXINGTON & FARQUHAR*	*S / 0.249 mi.*	*184*	*225*
OXFORD ACADEMY	*5172 ORANGE AVENUE*	*ENE / 0.214 mi.*	*BG188*	*228*

NFE - CA: Unconfirmed contaminated properties listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS ELEMENTARY SCHOOL EASEMENT	*10862 BLOOMFIELD STREET*	*SW / 0.500 mi.*	*BR255*	*323*

Following sites were unable to be mapped.

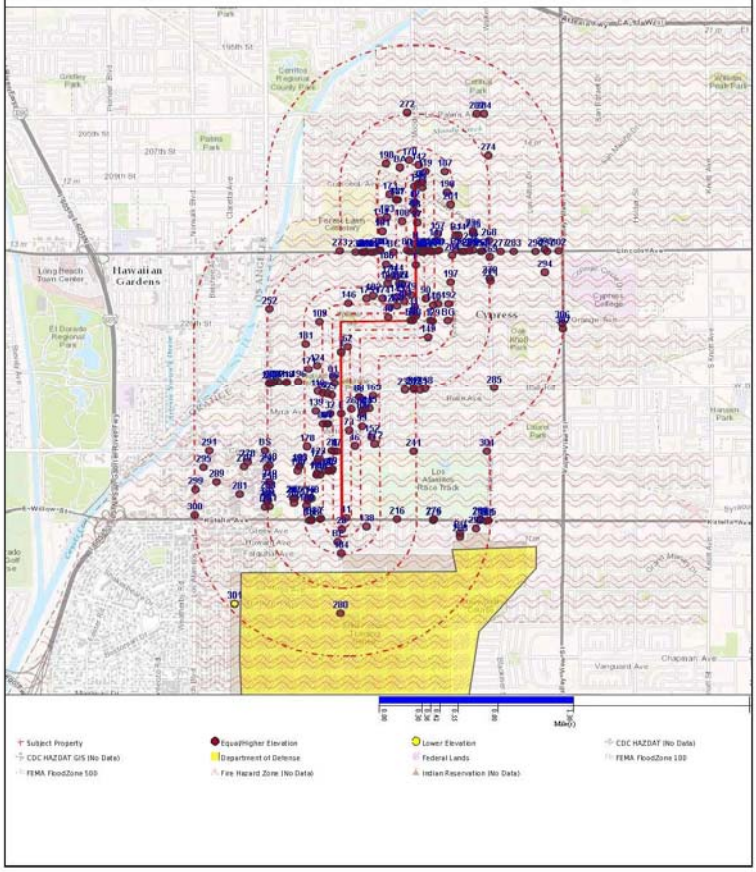
SITE NAME:	DATABASE(S):
Not Reported	CDL - CA
AIMCO CORP	HAZNET - CA
CAMP COMMANDER	ENVIROSTOR - CA
CITY OF CYPRESS	INDUSTRIAL CLEANUP_ORANGE COUNTY - CA
CITY OF LOS ALAMITOS LVT OP.	SWF/LF - CA
COOPER ELECTRONICS CO INC.	WIP - CA
CYPRESS AUTO BODY & PAINT	HAZNET - CA
CYPRESS CITY OF MAINT YARD	HAZNET - CA
EQUILON ENTERPRISES LLC/SHELL STATION	RCRA_LQG
FIVE CITY AUTO REPAIR CENTER INC	HAZNET - CA
FRIEDA PIGHIN	HAZNET - CA
GET GREEN REMODELING	HAZNET - CA
GOODYEAR TIRE AND RUBBER CO.	WIP - CA
HYATT DIE CAST ENGINEERING CORPORATION	HAZNET - CA
KHYBER FOODS	FID UST - CA, UST - CA

SITE NAME:	DATABASE(S):
KOHL'S DEPT STORES INC	HAZNET - CA
LAMASI IRON WORKS	WIP - CA
NORTH BAKERSFIELD TOYOTA SCION	AST_KERN COUNTY - CA
NORTH ORANGE COUNTY COMM COLLEGE DIST	HAZNET - CA
ODYSSEY CO	WIP - CA
OLYMPUS AMERICA, INC.	HAZNET - CA
PPC INC	HAZNET - CA
PROLOGIS TRUST	HAZNET - CA
SERVICE STATION - SAP 135217	BRS, RCRA_LQG
SOUTHERN CALIFORNIA EDISON	WIP - CA
SOUTHERN CALIFORNIA EDISON CYPRESS SUBSTATION	FRS
SPARKLE CAR WASH	FID UST - CA, UST - CA
STRAND LIGHTING	HAZNET - CA
SUPERIOR FAST FREIGHT	WIP - CA
THE BOEING COMPANY	HAZNET - CA
THE POSTAL OFFICE	WIP - CA
TIMOTHY LYN	HAZNET - CA
TYCOON MATERIALS INC	RCRA_NONGEN
UNITED HEALTH CARE	HAZNET - CA
UNITED HEALTH CARE	HAZNET - CA
UNITED HEALTH CARE	HAZNET - CA
UNOCAL #5362	LUST REG 8 - CA
UPRR SPILL SITE	INDUSTRIAL CLEANUP_ORANGE COUNTY - CA
YAMAHA MOTOR CORP USA	HAZNET - CA

PROPERTY PROXIMITY MAP

SUBJECT NAME: Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside Reli
ADDRESS: Los Alamitos Blvd, Los Alamitos, CA
LAT/LONG: 33.820974 / -118.050881

PREPARED FOR: Envirosite
ORDER #: 2453
REPORT DATE: October 15, 2015



AREA MAP

SUBJECT NAME: Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside Reli
ADDRESS: Los Alamitos Blvd, Los Alamitos, CA
LAT/LONG: 33.820974 / -118.050881

PREPARED FOR: Envirosite
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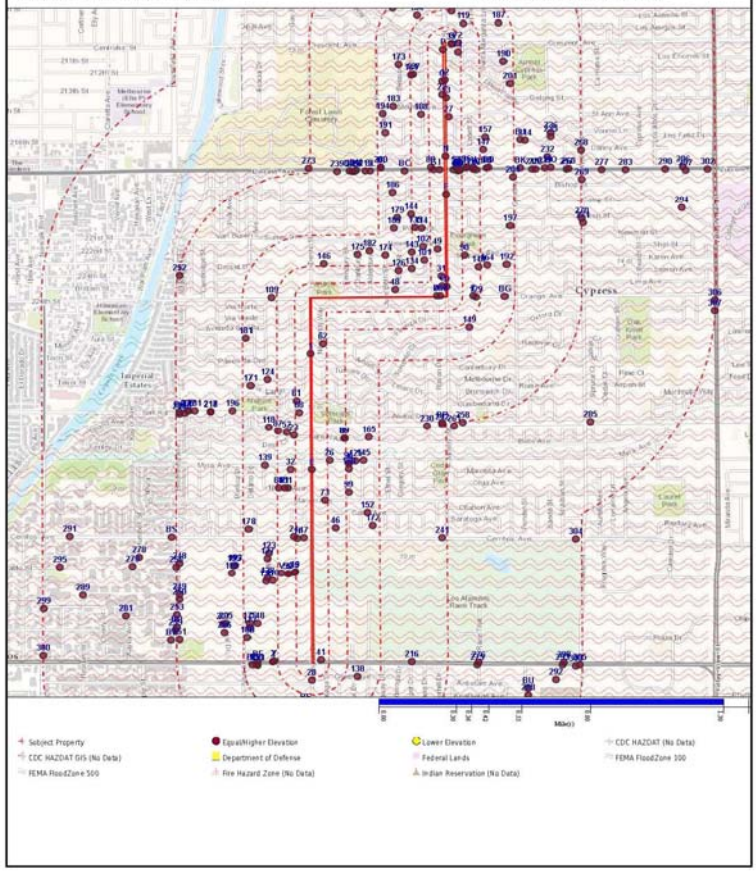

Map Findings Summary does not include summary of Map Layers Data.

STANDARD ENVIRONMENTAL RECORDS

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL CERCLIS LIST								
CERCLIS		0.500	0	0	0	NR	NR	0
CERCLIS NFRAP		0.500	1	0	1	NR	NR	2
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	0	0	0	1	NR	1
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	NR	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL ERNS LIST								
ERNS		SP	NR	NR	NR	NR	NR	0
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	NR	NR	0
FED I C		0.500	0	0	0	NR	NR	0
FED-PUBLISHED INSTITUTIONAL CONTROLS		0.500	0	0	0	NR	NR	0
RCRA IC_EC		0.250	0	0	NR	NR	NR	0
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	NR	0
NPL LIENS		SP	NR	NR	NR	NR	NR	0
PART NPL		1.000	0	0	0	0	NR	0
PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL RCRA GENERATORS LIST								
RCRA_CESQG		0.250	0	0	NR	NR	NR	0
RCRA_LQG		0.250	3	1	NR	NR	NR	4
RCRA_SQG		0.250	5	9	NR	NR	NR	14

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
RCRA_TSDF		0.500	0	0	0	NR	NR	0
STATE AND TRIBAL REGISTERED STORAGE TANK LISTS								
FEMA UST		0.250	0	0	NR	NR	NR	0
INDIAN UST R1		0.250	0	0	NR	NR	NR	0
INDIAN UST R10		0.250	0	0	NR	NR	NR	0
INDIAN UST R2		0.250	0	0	NR	NR	NR	0
INDIAN UST R4		0.250	0	0	NR	NR	NR	0
INDIAN UST R5		0.250	0	0	NR	NR	NR	0
INDIAN UST R6		0.250	0	0	NR	NR	NR	0
INDIAN UST R7		0.250	0	0	NR	NR	NR	0
INDIAN UST R8		0.250	0	0	NR	NR	NR	0
INDIAN UST R9		0.250	0	0	NR	NR	NR	0
AST - CA		0.250	1	0	NR	NR	NR	1
AST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_ORANGE COUNTY - CA		0.250	2	0	NR	NR	NR	2
AST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
BP HW OUT_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0
BUSINESS INVENTORY_SAN MATEO COUNTY - CA		0.250	0	0	NR	NR	NR	0
CLOSED UST_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
CS_PLACER COUNTY - CA		1.000	0	0	0	0	NR	0
FID UST - CA		0.250	9	3	NR	NR	NR	12
HIST UST - CA		0.250	9	1	NR	NR	NR	10
LOP_SANTA CLARA COUNTY - CA		0.500	0	0	0	NR	NR	0
SITE LIST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST - CA		0.250	9	3	NR	NR	NR	12
UST_ALAMEDA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF LONG BEACH - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF TORRANCE - CA		0.250	0	0	NR	NR	NR	0
UST_EL SEGUNDO CITY - CA		0.250	0	0	NR	NR	NR	0
UST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MARIN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_NAPA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_ORANGE COUNTY - CA		0.250	2	0	NR	NR	NR	2
UST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_RIVERSIDE COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN FRANCISCO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN JOAQUIN COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
UST_SOLANO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SUTTER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	NR	NR	NR	NR	NR	0
STATE AND TRIBAL LEAKING STORAGE TANK LISTS								
INDIAN LUST R1		0.500	0	0	0	NR	NR	0
INDIAN LUST R10		0.500	0	0	0	NR	NR	0
INDIAN LUST R2		0.500	0	0	0	NR	NR	0
INDIAN LUST R4		0.500	0	0	0	NR	NR	0
INDIAN LUST R5		0.500	0	0	0	NR	NR	0
INDIAN LUST R6		0.500	0	0	0	NR	NR	0
INDIAN LUST R7		0.500	0	0	0	NR	NR	0
INDIAN LUST R8		0.500	0	0	0	NR	NR	0
INDIAN LUST R9		0.500	0	0	0	NR	NR	0
LUST ORANGE COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST REG 1 - CA		0.500	0	0	0	NR	NR	0
LUST REG 2 - CA		0.500	0	0	0	NR	NR	0
LUST REG 3 - CA		0.500	0	0	0	NR	NR	0
LUST REG 4 - CA		0.500	0	0	1	NR	NR	1
LUST REG 5 - CA		0.500	0	0	0	NR	NR	0
LUST REG 6 - CA		0.500	0	0	0	NR	NR	0
LUST REG 7 - CA		0.500	0	0	0	NR	NR	0
LUST REG 8 - CA		0.500	8	4	26	NR	NR	38
LUST REG 9 - CA		0.500	0	0	0	NR	NR	0
LUST_HAZMAT_YOLO COUNTY - CA		0.500	0	0	0	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LUST_KERN COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_RIVERSIDE COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN FRANCISCO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN MATEO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SOLANO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SONOMA COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SUTTER COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
SLIC REG 1 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 2 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 3 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 4 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 5 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 6 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 7 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 8 - CA		0.500	0	1	1	NR	NR	2
SLIC REG 9 - CA		0.500	0	0	0	NR	NR	0
SLIC_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
CORRECTIVE ACTION_RIVERSIDE COUNTY - CA		1.000	0	0	0	0	NR	0
TOXIC SITE_SACRAMENTO COUNTY - CA		1.000	0	0	0	0	NR	0

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
LF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
LF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF/LF - CA		0.500	0	1	1	NR	NR	2
SWF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT NPL								
RESPONSE - CA		1.000	0	1	0	0	NR	1
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
TOXIC PITS - CA		1.000	0	0	0	0	NR	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - CA		0.500	0	0	0	NR	NR	0
OTHER ASCERTAINABLE RECORDS								
RCRA_FULL_DETAIL		0.250	0	0	NR	NR	NR	0
RCRA_NONGEN		0.250	0	0	NR	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
INDIAN ODI R8		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIBAL ODI		0.500	0	0	0	NR	NR	0
HAULERS - CA		0.500	1	0	1	NR	NR	2
SWRCY - CA		0.500	0	0	0	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LOCAL BROWNFIELD LISTS								
FED BROWNFIELDS		0.500	0	0	0	NR	NR	0
TRIBAL BROWNFIELDS		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	NR	NR	NR	NR	NR	0
US HIST CDL		SP	NR	NR	NR	NR	NR	0
CALARP_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
CASE LIST_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
CDL - CA		SP	NR	NR	NR	NR	NR	0
CS_NAPA COUNTY - CA		0.500	0	0	0	NR	NR	0
SCH - CA		0.250	0	0	NR	NR	NR	0
LOCAL LAND RECORDS								
LIENS 2		SP	NR	NR	NR	NR	NR	0
DEED - CA		0.500	0	0	0	NR	NR	0
LIENS - CA		SP	NR	NR	NR	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
ENVIROSTOR - CA		1.000	2	2	5	5	NR	14
RECORDS OF EMERGENCY RELEASE REPORTS								
INDUSTRIAL CLEANUP_ORANGE COUNTY - CA		0.125	3	NR	NR	NR	NR	3
LDS - CA		SP	NR	NR	NR	NR	NR	0
MCS - CA		1.000	0	0	0	0	NR	0
SML_LOS ANGELES COUNTY - CA		0.125	0	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
OTHER ASCERTAINABLE RECORDS								
AFS		SP	NR	NR	NR	NR	NR	0
BRS		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT GIS		SP	NR	NR	NR	NR	NR	0
COAL ASH DOE		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL GAS		1.000	0	0	0	0	NR	0
CONSENT (DECREES)		1.000	0	0	0	0	NR	0
DIGITAL OBSTACLE		1.000	0	0	0	1	NR	1
DOD		1.000	1	0	0	0	NR	1
DOT OPS		SP	NR	NR	NR	NR	NR	0
ENOI		SP	NR	NR	NR	NR	NR	0
FA HWF		SP	NR	NR	NR	NR	NR	0
FEDLAND		1.000	1	0	0	0	NR	1
FRS		SP	NR	NR	NR	NR	NR	0
FTTS		SP	NR	NR	NR	NR	NR	0
FTTS INSP		SP	NR	NR	NR	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
ICIS		SP	NR	NR	NR	NR	NR	0
INDIAN RESERVATION		1.000	0	0	0	0	NR	0
LEAD_SMELTER		SP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
MLTS		SP	NR	NR	NR	NR	NR	0
OSHA		SP	NR	NR	NR	NR	NR	0
PADS		SP	NR	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
PCB TRANSFORMER		SP	NR	NR	NR	NR	NR	0
RAATS		SP	NR	NR	NR	NR	NR	0
RADINFO		SP	NR	NR	NR	NR	NR	0
RMP		0.500	0	0	0	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.250	0	0	NR	NR	NR	0
SSTS		SP	NR	NR	NR	NR	NR	0
TOSCA-CHEMICAL		SP	NR	NR	NR	NR	NR	0
TOSCA-PLANT		SP	NR	NR	NR	NR	NR	0
TRANSMISSIONS		1.000	0	0	0	0	NR	0
TRIS		SP	NR	NR	NR	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
AOC_SAN GABRIEL VALLEY - CA		0.500	0	0	0	NR	NR	0
BOND EXPENDITURE PLAN - CA		1.000	0	0	0	0	NR	0
CHMIRS - CA		SP	NR	NR	NR	NR	NR	0
CORTESE - CA		0.500	0	0	0	NR	NR	0
CUPA_FRESNO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DAYCARE - CA		SP	NR	NR	NR	NR	NR	0
DRYCLEANERS - CA		0.250	3	1	NR	NR	NR	4
DRYCLEANERS_AMADOR COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_ANTELOPE VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BAY AREA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BUTTE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_CALAVERAS COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_COLUSA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EASTERN KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EL DORADO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_FEATHER RIVER - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GLENN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GREAT BASIN UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_IMPERIAL COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LAKE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LASSEN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MOJAVE DESERT - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MONTEREY BAY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTH COAST UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SIERRA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN JOAQUIN VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN LOUIS OBISPO - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SANT A BARBARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SHAS TA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SISK IYOU COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SOUT H COAST - CA		0.250	0	1	NR	NR	NR	1
DRYCLEANERS_TEHA MA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_TUOL UMNE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_VENT URA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_YOLO -SOLANO COUNTIES - CA		0.250	0	0	NR	NR	NR	0
EMI - CA		SP	NR	NR	NR	NR	NR	0
FA - CA		SP	NR	NR	NR	NR	NR	0
FA 2 - CA		SP	NR	NR	NR	NR	NR	0
GCC_SANTA CLARA VALLEY - CA		0.500	0	0	0	NR	NR	0
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA		0.500	0	0	0	NR	NR	0
HAZMAT_CITY OF SAN JOSE - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
HAZMAT_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN BERNARDINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SANTA CLARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZNET - CA		0.250	50	51	NR	NR	NR	101
HAZWASTE_ORANGE COUNTY - CA		1.000	23	2	22	42	NR	89
HIGH FIRE - CA		1.000	0	0	0	0	NR	0
HIST CORTESE - CA		0.500	0	0	2	NR	NR	2
HMS_LOS ANGELES COUNTY - CA		0.250	0	0	NR	NR	NR	0
HWM COMMERCIAL FACILITIES - CA		0.250	0	0	NR	NR	NR	0
HWP - CA		1.000	0	0	0	1	NR	1
HWT - CA		0.250	0	0	NR	NR	NR	0
LUFT_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
MWMP - CA		0.250	0	0	NR	NR	NR	0
NFA - CA		0.500	0	2	0	NR	NR	2
NFE - CA		0.500	0	0	1	NR	NR	1
PERCHLORATE 2 - CA		0.500	0	0	0	NR	NR	0
PROPOSITION 65 - CA		1.000	0	0	0	0	NR	0
RFR - CA		SP	NR	NR	NR	NR	NR	0
SITES INVENTORY_VENTURA COUNTY - CA		1.000	0	0	0	0	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
SWAT - CA		SP	NR	NR	NR	NR	NR	0
VCCP_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
WDS - CA		SP	NR	NR	NR	NR	NR	0
WILDLANDS - CA		1.000	0	0	0	0	NR	0
WIP - CA		0.250	0	0	NR	NR	NR	0

NOTES:

SP - Subject Property

NR - Not Requested at this search distance

Sites may be listed in more than one database

Government Records Report | 2015

Order Number: 2454
Report Generated: 12/04/2015

Project Name: OCSD Rehabilitation of Western Regional Sewers
Project Number: W9X99300

Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside Reli
Los Alamitos Blvd
Los Alamitos, CA

1175 Post Road East
Westport, CT 06880
Toll Free: 866-211-2028
www.envirositecorp.com

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Envirosite Corporation appreciates your business.
Please contact your Envirosite Corporation customer service representative at 866-211-2028 with any questions.

A search of available environmental records was conducted by Envirosite Corporation. The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for all Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-13) or custom requirements developed from the evaluation of environmental risks associated with a parcel of real estate. Executive Summary does not include a summary of report findings related to the selected Map Layers, this information is contained in the Map Findings section as well as being displayed on appropriate maps.

SUBJECT PROPERTY INFORMATION:

ADDRESS:

Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside
Reli
Los Alamitos Blvd
Los Alamitos, CA

COORDINATES:

Latitude (North):	33.785377 - 33° 47' 7.4"
Longitude (West):	-118.071876 - -118° 4' 18.8"
Universal Transverse Mercator:	Zone 11N
UTM X (Meters):	400764.05
UTM Y (Meters):	3738875.58
Elevation:	13.999 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH SUBJECT PROPERTY:

Subject Property Map: 33118g1 LOS ALAMITOS, CA
Most Recent Revision: 2012

SUBJECT PROPERTY SEARCH RESULTS:

The subject property was not listed in any of the databases searched by Envirosite Corporation.

DATABASE(S) WITH NO MAPPED SITES:

No mapped sites were found in Envirosite Corporation's Search of available ("Reasonable ascertainable") government records either on the subject property or within the search radius around the subject property for the following databases:

STANDARD ENVIRONMENTAL RECORDS

FEDERAL CERCLIS LIST

CERCLIS	Comprehensive Environmental Response Compensation and Liability Act
FEDERAL FACILITY	Federal Facility sites

FEDERAL DELISTED NPL SITE LIST

DELISTED NPL	Delisted National Priority List
DELISTED PROPOSED NPL	Delisted proposed National Priority List

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL ERNS LIST

ERNS	Emergency Response Notification System

FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES

FED E C	Engineering Controls
FED I C	Institutional Controls
FED-PUBLISHED INSTITUTIONAL CONTROLS	Published Institutional Controls
RCRA IC_EC	RCRA sites with Institutional and Engineering Controls

FEDERAL NPL SITE LIST

NPL	National Priority List
NPL LIENS	National Priority List Liens
PART NPL	Part National Priority List
PROPOSED NPL	Proposed National Priority List

FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST

RCRA_TSDF	Resource Conservation and Recovery Act: Treatment Storage and Disposal Facilities

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

FEMA UST	FEMA Underground Storage Tanks
INDIAN UST R1	Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN UST R10	Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN UST R2	Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN UST R4	Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN UST R5	Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN UST R6	Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN UST R7	Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN UST R8	Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN UST R9	Underground Storage Tanks on Indian Land in EPA Region 9
AST_CONTRA COSTA COUNTY - CA	Contra Costa County Aboveground Storage Tanks
AST_KERN COUNTY - CA	Kern County Aboveground Storage Tanks
AST_PLACER COUNTY - CA	Placer County Aboveground Storage Tanks
AST_YOLO COUNTY - CA	Yolo County Above Ground Storage Tanks
BP HW OUT_VENTURA COUNTY - CA	Ventura County Business Plan Hazardous Waste Producers and Operating Underground Tanks
BUSINESS INVENTORY_SAN MATEO COUNTY - CA	San Mateo County List of Underground Storage Tanks Hazardous Materials Business Plan and Hazardous Waste Generators
CLOSED UST_VENTURA COUNTY - CA	Ventura County Closed Underground Storage Tanks
CS_PLACER COUNTY - CA	Placer County Cleanup Sites
LOP_SANTA CLARA COUNTY - CA	Santa Clara County Local Oversight Program
SITE LIST_CONTRA COSTA COUNTY - CA	Contra Costa County Sites List
UST_ALAMEDA COUNTY - CA	Alameda County Underground Storage Tanks
UST_CITY OF LONG BEACH - CA	City of Long Beach Underground Storage Tanks
UST_CITY OF TORRANCE - CA	City of Torrance Underground Storage Tanks

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

UST_EL SEGUNDO CITY - CA	City of El Segundo Underground Storage Tanks
UST_KERN COUNTY - CA	Kern County Underground Storage Tanks
UST_MARIN COUNTY - CA	Marin County Underground Storage Tanks
UST_MENDOCINO COUNTY - CA	Mendocino County Underground Storage Tanks
UST_NAPA COUNTY - CA	Underground storage tank sites located in Napa county.
UST_PLACER COUNTY - CA	Placer County Underground Storage Tanks
UST_RIVERSIDE COUNTY - CA	Riverside County Underground Storage Tanks
UST_SAN FRANCISCO COUNTY - CA	San Francisco County Underground Storage Tanks
UST_SAN JOAQUIN COUNTY - CA	San Joaquin County Underground Storage Tanks
UST_SOLANO COUNTY - CA	Solano County Underground Storage Tanks
UST_SUTTER COUNTY - CA	Sutter County Underground Storage Tanks
UST_YOLO COUNTY - CA	Yolo County Underground Storage Tanks

RECORDS OF EMERGENCY RELEASE REPORTS

HMIRS (DOT)	Hazardous Materials Information Reporting Systems

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

INDIAN LUST R1	Leaking Underground Storage Tanks on Indian Land in EPA Region 1
INDIAN LUST R10	Leaking Underground Storage Tanks on Indian Land in EPA Region 10
INDIAN LUST R2	Leaking Underground Storage Tanks on Indian Land in EPA Region 2
INDIAN LUST R4	Leaking Underground Storage Tanks on Indian Land in EPA Region 4
INDIAN LUST R5	Leaking Underground Storage Tanks on Indian Land in EPA Region 5
INDIAN LUST R6	Leaking Underground Storage Tanks on Indian Land in EPA Region 6
INDIAN LUST R7	Leaking Underground Storage Tanks on Indian Land in EPA Region 7
INDIAN LUST R8	Leaking Underground Storage Tanks on Indian Land in EPA Region 8
INDIAN LUST R9	Leaking Underground Storage Tanks on Indian Land in EPA Region 9
LUST REG 1 - CA	Region 1 Leaking Underground Storage Tanks
LUST REG 2 - CA	Region 2 Leaking Underground Storage Tanks
LUST REG 3 - CA	Region 3 Leaking Underground Storage Tanks
LUST REG 4 - CA	Region 4 Leaking Underground Storage Tanks
LUST REG 5 - CA	Region 5 Leaking Underground Storage Tanks
LUST REG 6 - CA	Region 6 Leaking Underground Storage Tanks
LUST REG 7 - CA	Region 7 Leaking Underground Storage Tanks
LUST REG 9 - CA	Region 9 Leaking Underground Storage Tanks
LUST_HAZMAT_YOLO COUNTY - CA	Yolo County Leaking Underground Storage tanks
LUST_KERN COUNTY - CA	Kern County leaking underground tank sites
LUST_RIVERSIDE COUNTY - CA	Riverside County Leaking Underground Storage Tanks
LUST_SAN FRANCISCO COUNTY - CA	listing of leaking underground storage tanks
LUST_SAN MATEO COUNTY - CA	San Mateo County Leaking Underground Storage Tanks
LUST_SOLANO COUNTY - CA	Solano County Leaking Underground Storage Tanks
LUST_SONOMA COUNTY - CA	Sonoma County Leaking Underground Storage Tanks
LUST_SUTTER COUNTY - CA	Sutter County Leaking Underground Storage Tanks
LUST_VENTURA COUNTY - CA	Ventura County Leaking Underground Storage Tanks
SLIC REG 1 - CA	Spills Leaks Investigation & Cleanup Program

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

SLIC REG 2 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 3 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 4 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 5 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 6 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 7 - CA	Spills Leaks Investigation & Cleanup Program
SLIC REG 9 - CA	Spills Leaks Investigation & Cleanup Program
SLIC_ALAMEDA COUNTY - CA	Alameda County Spills Leaks Investigation & Cleanup

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

CORRECTIVE ACTION_RIVERSIDE COUNTY - CA	Riverside County Corrective Action Sites
TOXIC SITE_SACRAMENTO COUNTY - CA	Sacramento County Toxic Site Cleanup list

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

LF_LOS ANGELES COUNTY - CA	City of Los Angeles Landfills
LF_SAN DIEGO COUNTY - CA	San Diego County Landfills
SWF_LOS ANGELES COUNTY - CA	Los Angeles County solid waste facilities
SWF_SAN DIEGO COUNTY - CA	San Diego County Solid Waste Facilities.

STATE- AND TRIBAL - EQUIVALENT CERCLIS

TOXIC PITS - CA	Toxic Pits Cleanup Act

OTHER ASCERTAINABLE RECORDS

RCRA_FULL_DETAIL	Resource Conservation and Recovery Act_Full detail

ADDITIONAL ENVIRONMENTAL RECORDS

LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES

DEBRIS REGION 9	Torres Martinez Reservation Illegal Dump Sites
INDIAN ODI R8	Open Dump Inventory
ODI	Open Dump Inventory
TRIBAL ODI	Indian Open Dump Inventory Sites
HAULERS - CA	Tire Haulers
SWRCY - CA	Recyclers

LOCAL BROWNFIELD LISTS

FED BROWNFIELDS	Federal Brownfields
TRIBAL BROWNFIELDS	Tribal Brownfields

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

FED CDL	DOJ Clandestine Drug Labs
US HIST CDL	Historical Clandestine Drug Labs
CALARP_KERN COUNTY - CA	HazMat Chemical Facility List
CASE LIST_SAN DIEGO COUNTY - CA	San Diego County Environmental Case List
CDL - CA	Clandestine Drug Labs

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES (cont.)

CS_NAPA COUNTY - CA	Contaminated Sites

LOCAL LAND RECORDS

LIENS 2	CERCLA Lien Information
DEED - CA	Deeds
LIENS - CA	Liens

RECORDS OF EMERGENCY RELEASE REPORTS

LDS - CA	Land Disposal Sites
SML_LOS ANGELES COUNTY - CA	Los Angeles County Emergency Response session spills

OTHER ASCERTAINABLE RECORDS

AFS	Air Facility Systems
CDC HAZDAT	Hazardous Substance Release and Health Effects Information
CDC HAZDAT GIS	Hazardous Substance Release/Health Effects Database GIS Information
COAL ASH DOE	Coal Ash: Department of Energy
COAL ASH EPA	Coal Ash: Environmental Protection Agency
CONSENT (DECREES)	Superfund Consent Decree
DOT OPS	Department of Transportation Office of Pipeline Safety
ENOI	Electronic Notice of Intent
FA HWF	Financial Assurance for Hazardous Waste Facilities
FRS	Facility Index Systems
FTTS	FIFRA/TSCA Tracking System
FTTS INSP	FIFRA/TSCA Tracking System: Inspections
FUDS	Formerly Used Defense Sites
ICIS	Integrated Compliance Information System
INDIAN RESERVATION	Indian Reservations
LEAD_SMELTER	Lead Smelter Sites
LUCIS	Land Use Control Information Systems
MINES	Mines
MLTS	Material Licensing Tracking Systems
OSHA	Occupational Safety & Health Administration
PADS	PCB Activity Database Systems
PCB TRANSFORMER	Polychlorinated Biphenyls Transformers
RAATS	RCRA Administrative Action Tracking Systems
RADINFO	Radiation Information Systems
RMP	Risk Management Plans
ROD	Record of Decision
SCRD DRYCLEANERS	SCRD Drycleaners
SSTS	Section 7 Tracking Systems
TOSCA-CHEMICAL	Toxic Substance Control Act: Chemicals
TOSCA-PLANT	Toxic Substance Control Act: Plants
TRANSMISSIONS	Transmission & Gathering facilities
TRIS	Toxic Release Inventory Systems

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

UMTRA	Uranium Mill Tailing Sites
AOC_SAN GABRIEL VALLEY - CA	San Gabriel Valley Superfund
CHMIRS - CA	California Hazardous Material Incident Report System
CUPA_FRESNO COUNTY - CA	Fresno County Certified Unified Program Agency
DAYCARE - CA	Daycares
DRYCLEANERS_AMADOR COUNTY - CA	Amador County Drycleaners
DRYCLEANERS_ANTELOPE VALLEY - CA	Antelope Valley Drycleaners
DRYCLEANERS_BAY AREA - CA	Bay Area Drycleaners
DRYCLEANERS_BUTTE COUNTY - CA	Butte County Drycleaners
DRYCLEANERS_CALAVERAS COUNTY - CA	Calaveras County Drycleaners
DRYCLEANERS_COLUSA COUNTY - CA	Colusa County Drycleaners
DRYCLEANERS_EASTERN KERN COUNTY - CA	Eastern Kern County Drycleaners
DRYCLEANERS_EL DORADO COUNTY - CA	El Dorado County Drycleaners
DRYCLEANERS_FEATHER RIVER - CA	Feather River Drycleaners
DRYCLEANERS_GLENN COUNTY - CA	Glenn County Drycleaners
DRYCLEANERS_GREAT BASIN UNIFIED - CA	Great Basin Unified Drycleaners
DRYCLEANERS_IMPERIAL COUNTY - CA	Imperial County Drycleaners
DRYCLEANERS_LAKE COUNTY - CA	Lake County Drycleaners
DRYCLEANERS_LASSEN COUNTY - CA	Lassen County Drycleaners
DRYCLEANERS_MENDOCINO COUNTY - CA	Mendocino County Drycleaners
DRYCLEANERS_MOJAVE DESERT - CA	Mojave Desert Drycleaners
DRYCLEANERS_MONTEREY BAY - CA	Monterey Bay Drycleaners
DRYCLEANERS_NORTH COAST UNIFIED - CA	North Coast Unified Drycleaners
DRYCLEANERS_NORTHERN SIERRA - CA	Northern Sierra Drycleaners
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA	Northern Sonoma County Drycleaners
DRYCLEANERS_PLACER COUNTY - CA	Placer County Drycleaners
DRYCLEANERS_SACRAMENTO COUNTY - CA	Sacramento County Drycleaners
DRYCLEANERS_SAN DIEGO COUNTY - CA	San Diego County Drycleaners
DRYCLEANERS_SAN JOAQUIN VALLEY - CA	San Joaquin Valley Drycleaners
DRYCLEANERS_SAN LOUIS OBISPO - CA	San Louis Obispo Drycleaners
DRYCLEANERS_SANTA BARBARA COUNTY - CA	Santa Barbara Drycleaners
DRYCLEANERS_SHASTA COUNTY - CA	Shasta County Drycleaner
DRYCLEANERS_SISKIYOU COUNTY - CA	Siskiyou County Drycleaners

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS_SOUTH COAST - CA	South Coast Drycleaners
DRYCLEANERS_TEHAMA COUNTY - CA	Tehama County Drycleaners
DRYCLEANERS_TUOLUMNE COUNTY - CA	Tuolumne County Drycleaners
DRYCLEANERS_VENTURA COUNTY - CA	Ventura County Drycleaners
DRYCLEANERS_YOLO-SOLANO COUNTIES - CA	Yolo and Solano Counties Drycleaners
EMI - CA	Emissions Inventory Data
FA - CA	Financial Assurance
FA 2 - CA	Solid Waste Facility Financial Assurance
GCC_SANTA CLARA VALLEY - CA	Santa Clara Valley Groundwater Contamination Cleanups
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA	Contra Costa County Hazardous Materials Incident list
HAZMAT_CITY OF SAN JOSE - CA	City of San Jose Hazardous Material Facilities
HAZMAT_SACRAMENTO COUNTY - CA	Sacramento County Master Hazardous Materials Facility list
HAZMAT_SAN BERNARDINO COUNTY - CA	San Bernardino County Hazardous Material Permits
HAZMAT_SAN DIEGO COUNTY - CA	Hazardous Materials Management Division Database
HAZMAT_SANTA CLARA COUNTY - CA	Santa Clara County Hazardous Material Facilities
HIGH FIRE - CA	Fire Hazard Severity Zones
HIST CORTESE - CA	The Historical Hazardous Waste and Substances Sites List
HMS_LOS ANGELES COUNTY - CA	Los Angeles County Street Number List
HWM COMMERCIAL FACILITIES - CA	Hazardous Waste Management Commercial Facilities
HWT - CA	Hazardous Waste Transporters
LUFT_ALAMEDA COUNTY - CA	Alameda County Leaking Underground Fuel Tanks
MWMP - CA	Medical Waste Management Program
PERCHLORATE 2 - CA	Perchlorate contaminted sites
PROPOSITION 65 - CA	Proposition 65 Records
RFR - CA	Regulated Facility Report
SITES INVENTORY_VENTURA COUNTY - CA	Ventura County Inventory of Closed Illegal Abandoned and Inactive Sites
SWAT - CA	SWAT - CA
VCCP_VENTURA COUNTY - CA	Ventura County County Cleanup Program
WDS - CA	Waste Discharge System
WILDLANDS - CA	Preserves List
WIP - CA	Well Investigation Program

SURROUNDING SITES: SEARCH RESULTS:

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative equal to or higher than the subject property have been differentiated below from sites with an elevation lower than the subject property.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

STANDARD ENVIRONMENTAL RECORDS

FEDERAL CERCLIS LIST

CERCLIS NFRAP: Comprehensive Environmental Response Compensation and Liability Act No Further Remedial Action Planned sites that have been removed and archived

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FEDERAL MOGUL CORP-ARROWHEAD PRODUCTS	4411 KATELLA	NE / 0.002 mi.	***CQ63***	***227***
SAFETY- KLEEN CORP 7-088-05	3876 FLORISTA ST	NNE / 0.089 mi.	***DB195***	***481***

FEDERAL RCRA CORRACTS FACILITIES LIST

CORRACTS: List of facilities where Resource Conservation and Recovery Act Corrective Action Program used to investigate and remediate hazardous releases

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SAFETY KLEEN CORP 7 088 05	***3876 FLORISTA ST***	***NNE / 0.089 mi.***	*DB197*	*497*
NAVAL WEAPONS STATION SEAL BEACH	***800 SEAL BEACH BLVD***	***SSW / 0.974 mi.***	*ET383*	*775*

FEDERAL RCRA GENERATORS LIST

RCRA_CESQG: Resource Conservation and Recovery Act listing of licensed conditionally exempt small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
WEST COAST SURGERY CENTER	***3772 KATELLA AVE, STE 107***	***NNE / 0.000 mi.***	*27*	*122*

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CVS PHARMACY #9551	***12490 SEAL BEACH BOULEVARD***	***S / 0.000 mi.***	*Q5*	*53*
STERLING PATHOLOGY NATIONAL LABS	3020 OLD RANCH PKWY STE 300	SSW / 0.000 mi.	***Y10***	***81***

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_LQG: Resource Conservation and Recovery Act listing of licensed large quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
RITE AID #5515	***11172 LOS ALAMITOS BLVD***	***N / 0.000 mi.***	*BM22*	*105*
EXXONMOBIL OIL CORP.	***12240 SEAL BEACH BLVD***	***S / 0.002 mi.***	*F50*	*176*
TARGET #1328	***12300 SEAL BEACH BLVD***	***S / 0.002 mi.***	*H55*	*200*
ARROWHEAD PRODUCTS CORPORATION	***4411 KATELLA AVE***	***NE / 0.002 mi.***	*CQ64*	*230*
RITE AID NO 5515	12541 SEAL BEACH BLVD	S / 0.006 mi.	*R77*	*267*
CVS PHARMACY #4043	***3401 KATELLA AVE***	***N / 0.056 mi.***	*BX169*	*446*
TEXACO SVC STATION	***3311 KATELLA AVE***	***N / 0.176 mi.***	*DY280*	*616*
TREND OFFSET PRINTING SERVICES, INC.	***3791 CATALINA STREET***	***NNE / 0.184 mi.***	*EB291*	*675*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
WEST COUNTY CONNECTORS WEST SEGMENT	***3030 OLD RANCH PARKWAY SUITE 375***	***SSW / 0.000 mi.***	*BA31*	*129*

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
WEST COUNTY CONNECTOR, EAST SEGMENT	***3020 OLA RANCH PKWY, STE 250***	***SSW / 0.000 mi.***	*Y11*	*83*
FASHION AWARD CLEANERS	11304 LOS ALAMITOS BLVD	N / 0.000 mi.	*BE17*	*94*
TEXACO SERVICE STATION	11250 LOS ALAMITOS BLVD S A P 120508	N / 0.000 mi.	*BH21*	*103*
OTTO EHMIG AND CO	3532 KATELLA AVE	N / 0.000 mi.	*BU26*	*121*
KATELLA CLEANERS	3624 KATELLA AVE	N / 0.000 mi.	*BV36*	*138*
ED DIXON ENT INC	12240 SEAL BEACH	S / 0.002 mi.	*F51*	*179*
TARGET STORE T1328	***12300 SEAL BEACH BLVD***	***S / 0.002 mi.***	*H54*	*187*
DIVERSICARE	4290 KATELLA AVE	NE / 0.004 mi.	*CN68*	*259*
MAGIC CLEANERS	4276 KATELLA AVE	NE / 0.004 mi.	*CL69*	*261*
GOODYEAR	12239 SEAL BCH BLVD	SSW / 0.005 mi.	*B73*	*264*
LOS ANGELES EXXON	11171 LOS ALAMITOS BLVD	N / 0.008 mi.	*BK91*	*319*
ROSSMOOR CLEANERS	12441 SEAL BEACH BLVD	S / 0.008 mi.	*O94*	*322*
HAPPY 1 HR PHOTO	12391 SEAL BEACH BLVD	S / 0.008 mi.	*L95*	*324*
LOS ALAMITOS INTERNAL MED GRP	3801 KATELLA AVE STE 301	NNE / 0.010 mi.	*CI109*	*349*
LOS ALAMITOS FIRESTONE	11121 LOS ALAMITOS	N / 0.012 mi.	*BQ117*	*366*
OLD RANCH ARCO	12800 SEAL BEACH BLVD	S / 0.037 mi.	*U152*	*416*
NAFEES CLEANERS	10956 LOS ALAMITOS BLVD	N / 0.039 mi.	*CD155*	*419*
HEALTH SCIENCE ASSOCIATES	10941 BLOOMFIELD ST - STE A	NNE / 0.079 mi.	*179*	*465*
WARREN LABS, INC	10895 PORTAL DR	NNE / 0.087 mi.	*181*	*467*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

FEDERAL RCRA GENERATORS LIST (cont.)

RCRA_SQG: Resource Conservation and Recovery Act listing of licensed small quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SAFETY KLEEN CORP 7 088 05	***3876 FLORISTA ST***	***NNE / 0.089 mi.***	*DB197*	*497*
GRANADA CLEANERS	3391 KATELLA AVE	N / 0.093 mi.	*DG206*	*525*
LINDOW ENGINEERING AND MACHINE	10891 KYLE ST	NNE / 0.113 mi.	*216*	*538*
FLUOROCABON MSD	10871 KYLE ST	NNE / 0.130 mi.	*DN229*	*551*
LOS ALAMITOS ELEM SCHL	10862 BLOOMFIELD ST	NNE / 0.138 mi.	*DO235*	*560*
TGI	10852 KYLE ST	NNE / 0.144 mi.	*248*	*572*
DELANEY SASH & DOOR CO	10850 PORTAL DR	NNE / 0.152 mi.	*DQ255*	*586*
EVERGREEN PHARMACEUTICAL OF CALIFORNIA DBA PHARMACY ADVANTAGE	10751 NOEL ST	NE / 0.153 mi.	*258*	*592*
WEST PARKER BODY & FENDER SHOP INC	10841 BLOOMFIELD AVE	NNE / 0.166 mi.	*DW272*	*609*
WES PARKER BODY & FENDER SHOP INC.	10841 BLOOMFIELD AVE	NNE / 0.166 mi.	*DW273*	*611*
TEXACO SVC STATION	***3311 KATELLA AVE***	***N / 0.176 mi.***	*DY280*	*616*
A E I	3831 CATALINA #A	NNE / 0.178 mi.	*282*	*620*
LIENETT COMPANY INC	3751 CATALINA ST	NNE / 0.180 mi.	*285*	*625*
JOE SOCKETT AND SONS	10806 LOS ALAMITOS	N / 0.183 mi.	*288*	*628*
PRESTIGE CLEANERS	10774 LOS ALAMITOS BLVD	N / 0.215 mi.	*EF304*	*699*
SCREEN GEMS	10741 REAGAN ST	N / 0.215 mi.	*305*	*700*
MR C'S CUSTOM AUTO ELEC	10821 BLOOMFIELD AVE STE C	NNE / 0.222 mi.	*EG308*	*703*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JIMS CHEVRON SVC	2950 WESTMINSTER	SSW / 0.088 mi.	*CY183*	*469*
GENERAL TELEPHONE OF CA	2400 BEVERLY MANOR RD	SW / 0.173 mi.	*BS219*	*540*
ROSSMOOR SCHOOL	3272 SHAKESPEARE DR	NNW / 0.240 mi.	*287*	*627*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS

AST - CA: Listing of tank facilities that are subject to the California Aboveground Petroleum Storage Act

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	4411 KATELLA AVE	NE / 0.001 mi.	*CP40*	*143*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

AST_ORANGE COUNTY - CA: Orange county aboveground storage tanks

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ARROWHEAD PRODUCTS	4411 KATELLA AVE	NE / 0.001 mi.	*CP41*	*143*
JIFFY LUBE #1740	***3311 KATELLA AVE***	***N / 0.176 mi.***	*DY223*	*546*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ORANGE COUNTY FIRE AUTHORTY STA #48	3131 GATE RD	SSW / 0.004 mi.	*71*	*262*

FID UST - CA: The State Water Resource Control Board's Facility Inventory Database underground storage tank locations listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH MOBIL MART	***12240 SEAL BEACH BLVD***	***S / 0.002 mi.***	*F52*	*181*
GOODYEAR M & N COASTLINE	***12239 SEAL BEACH BLVD***	***SSW / 0.005 mi.***	*B74*	*265*
JOHN DOUGLAS FRENCH CENTER	***3951 KATELLA AVE***	***NNE / 0.005 mi.***	*75*	*266*
RUSSELL CONKLE UNOCAL #4686	***12071 SEAL BEACH BLVD***	***N / 0.005 mi.***	*76*	*266*
TOMMY FAUGHT CHEVRON SERVICE INC	***12541 SEAL BEACH BLVD***	***S / 0.006 mi.***	*R79*	*281*
TALIN TIRE INC	***11121 LOS ALAMITOS BLVD***	***N / 0.012 mi.***	*BQ119*	*371*
CYPRESS GOLF COURSE	***4561 KATELLA AVE***	***NE / 0.030 mi.***	*135*	*398*
SAFETY - KLEEN CORP	***3876 FLORISTA ST***	***NNE / 0.089 mi.***	*DB191*	*479*
MR C'S AUTO	***10821 BLOOMFIELD ST***	***NNE / 0.222 mi.***	*EG307*	*702*
UNOCAL #4727	***10742 LOS ALAMITOS BLVD***	***N / 0.240 mi.***	*313*	*708*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BIXBY RANCH CO	***3010 OLD RANCH PKWY***	***SSW / 0.000 mi.***	*14*	*93*
LEISURE WORLD UNION #30774	***13980 SEAL BEACH BLVD***	***SSW / 0.006 mi.***	*CT80*	*282*
OR CO FIRE STATION #48	***3131 BEVERLY MANOR DR***	***SSW / 0.015 mi.***	*120*	*372*
JIM HOLCHEKS CHEVRON SERVICE	***2950 WESTMINSTER AVE***	***SSW / 0.088 mi.***	*CY184*	*471*
G T E ALAMITOS C O	***2400 BEVERLY MANOR DR***	***SW / 0.173 mi.***	*218*	*540*

HIST UST - CA: Historical underground storage tank listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
TEXACO	11250 LOS ALAMITOS & FARQUAR	N / 0.000 mi.	*BH20*	*102*
INDIAN BAR COMPANY ARROWHEAD P	4411 KATELLA AVENUE	NE / 0.001 mi.	*CP39*	*142*
LOUSISIANA-PACIFIC CORP	4281 KATELLA AVE.	NE / 0.001 mi.	*CO42*	*143*
EDWARD N DIXON	12240 SEAL BEACH BLVD.	SSW / 0.002 mi.	*E46*	*152*
SERVICE STATION 4686	12071 SEAL BEACH BLVD	N / 0.003 mi.	*J66*	*259*
UNION OIL 4686	12071 SEAL BEACH BLVD.	N / 0.003 mi.	*J67*	*259*
EXXON SERVICE STATION	11171 LOS ALAMITOS	N / 0.010 mi.	*BN104*	*338*

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

HIST UST - CA: Historical underground storage tank listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ROSSMOOR CAR WASH	11031 LOS ALAMITOS BLVD.	N / 0.011 mi.	*BT113*	*359*
J V HARTWELL/J S HARTWELL	12800 SEAL BEACH BLVD	S / 0.025 mi.	*V130*	*383*
LOS ALAMITOS SHELL	10961 LOS ALAMITOS	N / 0.032 mi.	*CB139*	*402*
STATION 2	3642 GREEN AVENUE	N / 0.075 mi.	*CW175*	*461*
SAFETY-KLEEN CORP 7-088-05	3876 FLORISTA STREET	NNE / 0.091 mi.	*DF202*	*521*
DELANEY SASH AND DOOR COMPANY	10850 PORTAL DRIVE	NNE / 0.153 mi.	*DS260*	*599*
TEXACO	3311 KATELLA & WALNUT	N / 0.176 mi.	*DZ281*	*620*
BARR LUMBER COMPANY	10742 LOS ALAMITOS BLVD	N / 0.244 mi.	*EL319*	*713*
FRITE QUIRIN TRUCKING INC	10801 BLOOMFIELD	NNE / 0.250 mi.	*EM324*	*716*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FIRE DEPARTMENT	3131 BEVERLY MANOR ROAD	SSW / 0.015 mi.	*121*	*373*
SERVICE STATION 4970	13980 SEAL BEACH BOULEVARD	SSW / 0.021 mi.	*CS123*	*374*
91637	2950 WESTMINISTER	SSW / 0.090 mi.	*DC198*	*514*

UST - CA: Listing of active underground storage tank facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH MOBIL MART	*12240 SEAL BEACH BLVD*	*S / 0.002 mi.*	*F52*	*181*
GOODYEAR M & N COASTLINE	*12239 SEAL BEACH BLVD*	*SSW / 0.005 mi.*	*B74*	*265*
JOHN DOUGLAS FRENCH CENTER	*3951 KATELLA AVE*	*NNE / 0.005 mi.*	*75*	*266*
RUSSELL CONKLE UNOCAL #4686	*12071 SEAL BEACH BLVD*	*N / 0.005 mi.*	*76*	*266*
TOMMY FAUGHT CHEVRON SERVICE INC	*12541 SEAL BEACH BLVD*	*S / 0.006 mi.*	*R79*	*281*
TALIN TIRE INC	*11121 LOS ALAMITOS BLVD*	*N / 0.012 mi.*	*BQ119*	*371*
CYPRESS GOLF COURSE	*4561 KATELLA AVE*	*NE / 0.030 mi.*	*135*	*398*
SAFETY - KLEEN CORP	*3876 FLORISTA ST*	*NNE / 0.089 mi.*	*DB191*	*479*
MR C'S AUTO	*10821 BLOOMFIELD ST*	*NNE / 0.222 mi.*	*EG307*	*702*
UNOCAL #4727	*10742 LOS ALAMITOS BLVD*	*N / 0.240 mi.*	*313*	*708*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BIXBY RANCH CO	*3010 OLD RANCH PKWY*	*SSW / 0.000 mi.*	*14*	*93*
LEISURE WORLD UNION #30774	*13980 SEAL BEACH BLVD*	*SSW / 0.006 mi.*	*CT80*	*282*
OR CO FIRE STATION #48	*3131 BEVERLY MANOR DR*	*SSW / 0.015 mi.*	*120*	*372*
JIM HOLCHEKS CHEVRON SERVICE	*2950 WESTMINSTER AVE*	*SSW / 0.088 mi.*	*CY184*	*471*
G T E ALAMITOS C O	*2400 BEVERLY MANOR DR*	*SW / 0.173 mi.*	*218*	*540*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL REGISTERED STORAGE TANK LISTS (cont.)

UST_ORANGE COUNTY - CA: Orange county underground storage tanks

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH MOBIL	***12240 SEAL BEACH BLVD***	***S / 0.000 mi.***	*G29*	*127*
RUSSELL CONKLE 76 SERVICE	***12071 SEAL BEACH BLVD***	***N / 0.007 mi.***	*I88*	*318*
LOS ALAMITOS MEDICAL CENTER	3751 KATELLA AVE	NNE / 0.008 mi.	*93*	*322*
LOS ALAMITOS ARCO	***11171 LOS ALAMITOS BLVD***	***N / 0.010 mi.***	*BL107*	*347*
TESORO SHELL # 68554	***10961 LOS ALAMITOS***	***N / 0.028 mi.***	*BZ134*	*398*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LEISURE WORLD AUTOMOTIVE 76	***13980 SEAL BEACH BLVD***	***SSW / 0.008 mi.***	*CU90*	*319*
H & S 2	***2950 WESTMINSTER AVE***	***SSW / 0.089 mi.***	*CZ186*	*474*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS

LUST ORANGE COUNTY - CA: Orange county leaking underground storage tanks

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SOUTHERN PACIFIC TRANS CO	10722 REAGAN	N / 0.271 mi.	*EN328*	*723*

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CHEVRON	12541 SEAL BEACH	S / 0.000 mi.	*T8*	*72*
CHEVRON #9-5568	12541 SEAL BEACH	S / 0.000 mi.	*T9*	*74*
DOMINION PROPERTY	4281 KATELLA	NE / 0.001 mi.	*CO43*	*144*
MOBIL #18-GQT	12240 SEAL BEACH	SSW / 0.002 mi.	*E47*	*153*
MOBIL OIL	12240 SEAL BEACH	SSW / 0.002 mi.	*E48*	*161*
TEXACO	11250 LOS ALAMITOS	N / 0.009 mi.	*101*	*329*
EXXON USA	11171 LOS ALAMITOS	N / 0.010 mi.	*BN103*	*336*
TALIN TIRE	11121 LOS ALAMITOS	N / 0.010 mi.	*108*	*347*
ROSSMOOR CAR WASH	11031 LOS ALAMITOS	N / 0.011 mi.	*BT114*	*360*
ARCO #3038	12800 SEAL BEACH	S / 0.025 mi.	*V131*	*383*
SHELL	10961 LOS ALAMITOS	N / 0.032 mi.	*CB138*	*400*
SHELL OIL	10961 LOS ALAMITOS	N / 0.032 mi.	*CB140*	*402*
ORANGE COUNTY FIRE STATION #2	3642 GREEN	N / 0.075 mi.	*CW176*	*461*
TRUCK GEARS, INC.	3882 FLORISTA ST	NNE / 0.091 mi.	*DE201*	*519*
SAFETY-KLEEN CORPORATION	3876 FLORISTA ST	NNE / 0.091 mi.	*DF203*	*521*
DELANEY SASH & DOOR	10850 PORTAL	NNE / 0.153 mi.	*DS259*	*597*
MR C'S AUTO	10821 KYLE	NNE / 0.157 mi.	*264*	*601*
TEXACO	3311 KATELLA	N / 0.184 mi.	*289*	*630*
BARR LUMBER	10742 LOS ALAMITOS	N / 0.244 mi.	*EL318*	*711*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LEAKING STORAGE TANK LISTS (cont.)

LUST REG 8 - CA: Leaking underground storage tanks in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
OLTMAN'S CONSTRUCTION COMPANY	10801 BLOOMFIELD ST	NNE / 0.250 mi.	*EM323*	*715*
OROWHEAT	10751 BLOOMFIELD	NNE / 0.270 mi.	*326*	*717*
B AND F BOX AND LUMBER SITE	10722 REAGAN ST	N / 0.271 mi.	*EN327*	*719*
LOS ALAMITOS CITY YARD	3191 KATELLA	NNW / 0.299 mi.	*332*	*725*
MARRIOTT DISTRIBUTION	10681 CALLE LEE	NNE / 0.325 mi.	*333*	*727*
CONSOLIDATED FREIGHTWAYS INC	10651 REAGAN	N / 0.347 mi.	*EO334*	*729*
LOS ALAMITOS UNIFIED SCHOOL DISTRICT	10652 REAGAN	N / 0.347 mi.	*EO335*	*731*
AEROMOTORS	10650 LOS ALAMITOS	N / 0.361 mi.	*339*	*735*
CYPRESS GOLF CLUB	4921 KATELLA	NE / 0.366 mi.	*340*	*737*
BRIGGEMAN DISPOSAL SERVICES	3551 SAUSALITO	N / 0.382 mi.	*342*	*741*
L & S PROPERTY MANAGEMENT	10621 BLOOMFIELD	NNE / 0.394 mi.	*349*	*745*
JOHNS RESTAURANT (FORMER SHELL)	4499 CERRITOS	NE / 0.497 mi.	*355*	*753*
MOBIL #18-GQ0	3971 CERRITOS	NNE / 0.498 mi.	*356*	*755*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
UNOCAL #4686 (AKA TOSCO/76)	12071 SEAL BEACH	N / 0.003 mi.	*J65*	*251*
TOSCO - 76 #4970	13980 SEAL BEACH	SSW / 0.021 mi.	*CS124*	*374*
UNOCAL	13980 SEAL BEACH	SSW / 0.021 mi.	*CS125*	*378*
LEISURE WORLD	13533 SEAL BEACH	SSW / 0.024 mi.	*CG128*	*379*
GOLDEN RAIN FOUNDATION	13533 SEAL BEACH	SSW / 0.024 mi.	*CG129*	*381*
CHEVRON #9-1637	2950 WESTMINSTER	SSW / 0.090 mi.	*DC199*	*514*
G T E	2400 BEVERLY MANOR	SW / 0.173 mi.	*BS220*	*542*
ROCKWELL INTERNATIONAL	2600 WESTMINSTER	SSW / 0.426 mi.	*351*	*747*

SLIC REG 8 - CA: GeoTracker Site Cleanup Program (formerly known as SLIC) database listing in Region 8: Orange Riverside San Bernardino counties.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ROSSMOOR CLEANERS (FORMER)	12441 SEAL BEACH BLVD.	S / 0.001 mi.	*N38*	*141*
GOODYEAR (FORMER) WASTE DUMPSTER AREA AT ROSSMOOR CENTER	12239 SEAL BEACH BOULEVARD	SSW / 0.002 mi.	*D58*	*215*
MAGIC CLEANERS	4276 KATELLA AVENUE	NE / 0.007 mi.	*87*	*315*
BEST CLEANERS	***11139 LOS ALAMITOS BLVD***	***N / 0.010 mi.***	*106*	*338*

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS

SWF/LF - CA: Solid Waste Information System's facility listing of solid waste facilities and landfills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS JFTB LANDFILLS	LOS ALAMITOS BLVD. & KATELLA AVE.	N / 0.007 mi.	*84*	*313*

STATE- AND TRIBAL - EQUIVALENT NPL

RESPONSE - CA: State response sites with confirmed releases and potential high risk

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JOINT FORCES TRAINING BASE, LOS ALAMITOS	***LEXINGTON & FARQUHAR***	***NE / 0.248 mi.***	*321*	*713*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
NWS SEAL BEACH	***SEAL BEACH BLVD AND WESTMINSTER AVE***	***SSW / 0.043 mi.***	*CV163*	*435*

STATE AND TRIBAL VOLUNTARY CLEANUP SITES

VCP - CA: Voluntary Cleanup Program remediation sites listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS MEDICAL CENTER	***3876 FLORISTA STREET***	***NNE / 0.089 mi.***	*DB192*	*479*

OTHER ASCERTAINABLE RECORDS

RCRA_NONGEN: Resource Conservation and Recovery Act listing of licensed non-generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
TGI	3882 FLORISTA ST	NNE / 0.089 mi.	*DA189*	*475*
TRUCK GEARS INC	3882 FLORISTA ST	NNE / 0.089 mi.	*DA190*	*477*
INNOVATIVE ENVIRONMENTAL PRODUCTS INC	10865 PORTAL DR	NNE / 0.110 mi.	*214*	*535*
FLUOROCARBON MECH SEAL DIV	10871 KYLE ST	NNE / 0.130 mi.	*DN228*	*549*
WAVELL-HUBER WOOD PRODUCTS INC	3801 CATALINA ST	NNE / 0.180 mi.	*284*	*623*

ADDITIONAL ENVIRONMENTAL RECORDS

LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES

SCH - CA: Listing of possible hazardous material contamination sites on existing school properties

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS ELEMENTARY SCHOOL - RAILROAD EASEMENT	***10862 BLOOMFIELD STREET***	***NNE / 0.138 mi.***	*DO233*	*558*
LOS ALAMITOS ELEMENTARY SCHOOL EASEMENT	***10862 BLOOMFIELD STREET***	***NNE / 0.138 mi.***	*DO234*	*558*

STATE- AND TRIBAL - EQUIVALENT CERCLIS

ENVIROSTOR - CA: Department of Toxic Substances Controls

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
ARROWHEAD PRODUCTS	4411 KATELLA AVENUE	NE / 0.002 mi.	*CQ60*	*226*
FEDERAL MOGUL CORP - ARROWHEAD PRODUCTS	4411 KATELLA AVENUE	NE / 0.002 mi.	*CQ61*	*226*
LOS ALAMITOS MEDICAL CENTER	***3876 FLORISTA STREET***	***NNE / 0.089 mi.***	*DB192*	*479*
SAFETY-KLEEN	***3876 FLORISTA ST***	***NNE / 0.089 mi.***	*DB193*	*480*
SAFETY-KLEEN LOS ALAMITOS	3876 FLORISTA ST	NNE / 0.089 mi.	*DB194*	*480*
LOS ALAMITOS ELEMENTARY SCHOOL - RAILROAD EASEMENT	***10862 BLOOMFIELD STREET***	***NNE / 0.138 mi.***	*DO233*	*558*
LOS ALAMITOS ELEMENTARY SCHOOL EASEMENT	***10862 BLOOMFIELD STREET***	***NNE / 0.138 mi.***	*DO234*	*558*
JOINT FORCES TRAINING BASE, LOS ALAMITOS	***LEXINGTON & FARQUHAR***	***NE / 0.248 mi.***	*321*	*713*
LOS ALAMITOS HIGH SCHOOL	***3591 CERRITOS AVENUE***	***N / 0.503 mi.***	*359*	*762*
VELSICOL CHEMICAL COMPANY	***3342 CERRITOS AVENUE***	***N / 0.521 mi.***	*EQ362*	*763*
NAVAL WEAPONS STATION SEAL BEACH	800 SEAL BEACH BLVD CODE 045	SSW / 0.971 mi.	*377*	*772*
NAVAL WEAPONS STATION SEAL BEACH	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET384*	*827*
NAVAL WEAPONS STATION SEAL BEACH	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET405*	*849*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
NWS SEAL BEACH	***SEAL BEACH BLVD AND WESTMINSTER AVE***	***SSW / 0.043 mi.***	*CV163*	*435*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

RECORDS OF EMERGENCY RELEASE REPORTS

INDUSTRIAL CLEANUP_ORANGE COUNTY - CA: Petroleum and non-petroleum industrial spills

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
KATELLA CLEANERS	3624 KATELLA AVE	N / 0.000 mi.	*25*	*120*
ROSSMOOR BUSINESS CENTER	12441 SEAL BEACH BLVD	S / 0.001 mi.	*N37*	*140*
GOODYEAR LEASE FACILITY #7265	12239 SEAL BEACH BLVD	SSW / 0.002 mi.	*D57*	*215*
FORMER WINSTON TIRE CENTER	12229 SEAL BEACH BLVD	NW / 0.002 mi.	*59*	*225*
RUSSELL CONKLE UNOCAL #4686	***12071 SEAL BEACH BLVD***	***N / 0.005 mi.***	*76*	*266*
FASHION AWARDS CLEANERS	11304 LOS ALAMITOS BLVD	N / 0.009 mi.	*96*	*325*
BEST CLEANERS	***11139 LOS ALAMITOS BLVD***	***N / 0.010 mi.***	*106*	*338*
TCG TRUCKING	3882 FLORISTA ST	NNE / 0.091 mi.	*DE200*	*519*

MCS - CA: The State Water Resources Control Board's investigation and remediation of water quality issues at military facilities.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-6 - IRP-44/45 WASTE OTTO FUEL DRUM STORAGE/BUILDING 88 DRAIN OUTLET	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET385*	*827*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-4 - IRP-37 BOLSA AVENUE STORAGE YARD	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET386*	*828*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-40 CONCRETE PIT/GRAVEL AREA.	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET387*	*828*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-5 - IRP-16 PRIMER/SALVAGE YARD	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET388*	*830*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - MRP - UXO1 PRIMER/SALVAGE YARD	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET389*	*831*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH IR-13 RAW SEWAGE SPILL	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET390*	*833*

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

RECORDS OF EMERGENCY RELEASE REPORTS (cont.)

MCS - CA: The State Water Resources Control Board's investigation and remediation of water quality issues at military facilities.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-7 STATION LANDFILL	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET391*	*834*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-5 - IRP-8 BATTERY SHOP DRAINAGE FROM BLDG. 235	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET392*	*835*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-4 PERIMETER ROAD	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET393*	*837*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-4 - IRP-38 X-RAY SHOP LEACH FIELD	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET394*	*837*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-2 EVAPORATION POND	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET395*	*838*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - BLDG 250, GENERATOR	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET396*	*839*
SEAL BEACH NAVAL WEAPONS STATION - AGRICULTURAL WELL KAYO-SB, IRP SITE 75	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET397*	*840*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH OU-1 IRP-1 WASTEWATER SETTLING POND	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET398*	*841*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-70 RESEARCH, TESTING AND EVALUATION AREA	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET399*	*843*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-7 - SWMU-56 HAZARDOUS WASTE DRUM STORAGE	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET400*	*844*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

RECORDS OF EMERGENCY RELEASE REPORTS (cont.)

MCS - CA: The State Water Resources Control Board's investigation and remediation of water quality issues at military facilities.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, SWMU-57 PAINT LOCKER AREA	800 SEAL BEACH BLVD.	SSW / 0.974 mi.	*ET401*	*845*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR SITE 42	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET402*	*846*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH - OU-7 - SWMU-24 STATION DEMILITARIZATION FURNACE	800 SEAL BEACH BOULEVARD	SSW / 0.974 mi.	*ET403*	*847*
SEAL BEACH NAVAL WEAPONS STATION - US NAVAL WEAPONS STATION SEAL BEACH, IR-19 BLDG. 241 DISPOSAL PIT.	800 SEAL BEACH BLVD	SSW / 0.974 mi.	*ET404*	*848*

OTHER ASCERTAINABLE RECORDS

BRS: Reporting of hazardous waste generation and management from large quantity generators

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CVS PHARMACY #9551	*12490 SEAL BEACH BOULEVARD*	*S / 0.000 mi.*	*Q5*	*53*
WEST COUNTY CONNECTOR, EAST SEGMENT	*3020 OLA RANCH PKWY, STE 250*	*SSW / 0.000 mi.*	*Y11*	*83*
RITE AID #5515	*11172 LOS ALAMITOS BLVD*	*N / 0.000 mi.*	*BM22*	*105*
WEST COAST SURGERY CENTER	*3772 KATELLA AVE, STE 107*	*NNE / 0.000 mi.*	*27*	*122*

COAL GAS: Manufactured Gas Plant locations

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
TORCH OPERATING COMPANY	*PLATFORM ESTHER, PRC 3095.1*	*S / 0.078 mi.*	*177*	*463*
DCOR LLC	*OFFSHORE PLATFORM ESTHER PRC 3095 1*	*SSW / 0.458 mi.*	*352*	*751*
CHEVRONTEXACO E&P CO	*6208 WESTMINISTER BLVD*	*SSW / 0.634 mi.*	*367*	*766*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DIGITAL OBSTACLE: The Digital Obstacle File describes all known obstacles of interest to aviation users in the U.S. with limited coverage of the Pacific the Caribbean Canada and Mexico. The obstacles are assigned unique numerical identifiers; accuracy codes and listed in order of ascending latitude within each state or area by FAA Region.

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	118 04 08.80W 33 46 31.45N	SSE / 0.253 mi.	*325*	*716*
N/R	118 05 06.66W 33 45 24.40N	SSW / 0.493 mi.	*353*	*752*
N/R	118 03 37.83W 33 47 05.79N	E / 0.653 mi.	*368*	*767*
N/R	118 03 16.39W 33 47 35.20N	ENE / 0.682 mi.	*369*	*768*
N/R	118 03 17.75W 33 46 59.84N	E / 0.975 mi.	*406*	*850*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
N/R	118 05 40.00W 33 45 52.00N	SW / 0.969 mi.	*380*	*773*
N/R	118 05 41.00W 33 45 42.00N	SW / 0.984 mi.	*408*	*851*

BOND EXPENDITURE PLAN - CA: Hazardous Substance Cleanup Bond Act of 1984 Article 7.5 of Health and Safety Code 25385 listing of orphan sites

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SEAL BEACH NAVAL WEAPONS STATION	800 SEAL BEACH BLVD.	SSW / 0.973 mi.	*ES382*	*775*

CORTESE - CA: Compliance document used in providing information about the location of hazardous material release sites utilized by the state local agencies and developers

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
NWS SEAL BEACH	*SEAL BEACH BLVD AND WESTMINSTER AVE*	*SSW / 0.043 mi.*	*CV163*	*435*

DRYCLEANERS - CA: Listing of drycleaning facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
Fashion Award Cleaners	11304 Los Alamitos Blvd	N / 0.000 mi.	*BE18*	*96*
Katellas Cleaners	3624 Katella Ave	N / 0.000 mi.	*BV35*	*138*
MAGIC CLEANERS	4276 KATELLA AVE	NE / 0.004 mi.	*CL70*	*262*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

DRYCLEANERS - CA: Listing of drycleaning facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
Rossmoore Cleaners	12493 Seal Beach Blvd.	S / 0.009 mi.	*99*	*329*
Rossmoor Cleaners & Laundry	12231 Seal Beach Blvd	SW / 0.009 mi.	*100*	*329*
All World 2 Cleaners Inc	3661 Katella Ave	N / 0.011 mi.	*115*	*366*
Best Cleaners	11139 Los Alamitos Blvd	N / 0.012 mi.	*116*	*366*
STOLER CORPORATION	10956 LOS ALAMITOS BLVD	N / 0.039 mi.	*CD156*	*421*
Granada One Hour Cleaners	3391 Katella Ave	N / 0.093 mi.	*DG205*	*524*
Prestige Cleaners	10774 Los Alamitos Blvd	N / 0.215 mi.	*EF303*	*698*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
Lesiure World Cleaners	13940 Seal Beach Blvd	SSW / 0.010 mi.	*105*	*338*

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BED BATH & BEYOND #412	12390 SEAL BEACH BLVD	S / 0.000 mi.	*2*	*46*
CVS PHARMACY NO 9551	12490 SEAL BEACH BLVD	S / 0.000 mi.	*Q4*	*50*
CVS PHARMACY # 9551	12490 SEAL BEACH BLVD	S / 0.000 mi.	*Q6*	*65*
CVS PHARMACY #9551	12490 SEAL BEACH BLVD	S / 0.000 mi.	*Q7*	*68*
VONS #2285	11322 LOS ALAMITOS BLVD	N / 0.000 mi.	*16*	*94*
AUTOZONE #3313	11282 LOS ALAMITOS BLVD	N / 0.000 mi.	*BF19*	*96*
RITE AID #5515	11172 LOS ALAMITOS BLVD	N / 0.000 mi.	*BM23*	*115*
SPIN PIZZA	11122 LOS ALAMITOS BLVD	N / 0.000 mi.	*24*	*119*
RALPHS GROCERY #604	12470 SEAL BEACH BLVD	S / 0.001 mi.	*44*	*145*
LOS ALAMITOS DENTAL AITS	3724 KATELLA AVE	NNE / 0.001 mi.	*45*	*150*
EXXONMOBIL OIL CORPORATION #11428	12240 SEAL BEACH BLVD	S / 0.002 mi.	*F49*	*163*
TARGET STORE NO 1328	12300 SEAL BEACH BLVD	S / 0.002 mi.	*H53*	*181*
TARGET 1328	12300 SEAL BEACH BLVD	S / 0.002 mi.	*H56*	*206*
ARROWHEAD PRODUCTS	4411 KATELLA AVE	NE / 0.002 mi.	*CQ62*	*227*
KOHL'S DEPARTMENT STORES INC #604	12345 SEAL BEACH BLVD	S / 0.005 mi.	*72*	*263*
CHEVRON 95568	12541 SEAL BEACH BLVD	S / 0.006 mi.	*R78*	*270*
LOS ALAMITOS MEDICAL CENTER	3751 KATELLA AVE	NNE / 0.006 mi.	*CF82*	*283*
LOS ALAMITOS ARCO	11171 LOS ALAMITOS BLVD	N / 0.008 mi.	*BK92*	*321*
HOMEGOODS 0250	12343 SEAL BEACH BLVD	S / 0.009 mi.	*97*	*326*
ULTA BEAUTY 604	12339 SEAL BEACH BLVD	S / 0.009 mi.	*98*	*327*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS HEMATOLOGY ONCOLOGY MED GROUP	3801 KATELLA AVE STE 207	NNE / 0.010 mi.	*CI110*	*351*
LOS ALAMITOS FIRESTONE	11121 LOS ALAMITOS_BLVD	N / 0.010 mi.	*BR111*	*356*
M&N COASTLINE AUTO & TIRE SERVICE INC	11121 LOS ALAMITOS BLVD	N / 0.012 mi.	*BQ118*	*368*
US BANK NATIONAL ASSOCIATION	10942 PINE ST	N / 0.018 mi.	*122*	*373*
TESORO REFINING & MARKETING/LOS ALAMITOS SHELL #68554	10961 LOS ALAMITOS BLVD	N / 0.028 mi.	*CA132*	*387*
SHELL SERVICE STATION	10961 LOS ALAMITOS BLVD	N / 0.028 mi.	*CA133*	*392*
ROGER SEAPY	11702 PASEO BONITA	N / 0.031 mi.	*136*	*399*
CONNIE STEWART	11761 PASEO BONITA	N / 0.032 mi.	*137*	*399*
ROBBY FARARJI	11662 WEATHERBY RD	N / 0.090 mi.	*141*	*408*
WALTER SMITH	12162 PASEO BONITA	NE / 0.034 mi.	*144*	*410*
MONI ROLE	11512 WEATHERBY RD	N / 0.091 mi.	*145*	*411*
DALE COOPER	11406 HARRISBURG RD.	N / 0.036 mi.	*149*	*414*
JASON BOWEN	3451 ROSSMOOR WAY	N / 0.037 mi.	*151*	*415*
RANDY HOVEY	11364 DAVENPORT RD	N / 0.038 mi.	*154*	*418*
PAUL BROWN	3441 YELLOWTAIL DR	S / 0.039 mi.	*157*	*421*
GOLDEN STATE WATER COMPANY	10941 CHERRY ST	NNE / 0.039 mi.	*158*	*422*
ARTHUR LAOS DDS INC	3532 HOWARD ST, #200	N / 0.039 mi.	*BO159*	*423*
BERNIE A COFFEE DDS	3532 HOWARD ST STE 101	N / 0.039 mi.	*BO160*	*431*
VINCE PARANAL, DDS	3532 HOWARD AVE	N / 0.039 mi.	*BO161*	*433*
LOUISE PUTRON	11252 DAVENPORT RD	N / 0.042 mi.	*162*	*434*
WARREN PETERS	3431 ROSSMOOR WAY	N / 0.047 mi.	*165*	*437*
CVS PHARMACY NO 4043	3401 KATELLA AVE	N / 0.056 mi.	*BX167*	*439*
CVS PHARMACY #4043	3401 KATELLA AVE	N / 0.056 mi.	*BX168*	*440*
SANDY PALMER	11062 LEXINGTON DR	NE / 0.068 mi.	*172*	*458*
BRUCE BRADLEY	3602 GREEN AVE APT 9	N / 0.075 mi.	*174*	*460*
CITY OF LOS ALAMITOS	10909 PORTAL AVE	NNE / 0.078 mi.	*178*	*464*
DEBBIE RICKER	3572 THOR AVE	N / 0.087 mi.	*180*	*466*
RUSSEL KNOX	11652 PINE ST	N / 0.088 mi.	*182*	*469*
AXS OPPORTUNITY FUND LLC	10900 LOS ALAMITOS BLVD STE 133	N / 0.089 mi.	*187*	*474*
COLUCCI, KENNETH	11931 WEATHERBY RD	NNW / 0.089 mi.	*188*	*475*
SAFETY-KLEEN	3876 FLORISTA ST	NNE / 0.089 mi.	*DB196*	*483*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
FRIEDA WRAY	3442 ROWENA DR.	SSW / 0.092 mi.	*204*	*524*
CONE ENGINEERING INC	10883 PORTAL DRIVE	NNE / 0.096 mi.	*208*	*528*
LA TESTING	10772 NOEL ST	NE / 0.097 mi.	*210*	*529*
SUE & MARK COOKSEY	11301 PINE ST	N / 0.110 mi.	*215*	*537*
SCREEN GEMS SILKSCREENING CO	10857 PORTAL DR	NNE / 0.116 mi.	*221*	*543*
MIKE MAUNULA	3631 LA COLMENA WAY	NNE / 0.123 mi.	*224*	*546*
ANTONIA HOMERES	3681 FLORISTA ST	N / 0.132 mi.	*230*	*552*
GOLDEN STATE WATER CO	10852 CHERRY ST	NNE / 0.134 mi.	*231*	*553*
SANTA FE ELECTRIC INC	10842 NOEL ST STE 112	NE / 0.137 mi.	*232*	*557*
LAUSD-LOS ALAMITOS ELEMENTARY SCHOOL	10862 BLOOMFIELD ST	NNE / 0.138 mi.	*DO236*	*561*
MARK SKUSTER	3351 OAK KNOLL DR	NNW / 0.139 mi.	*237*	*564*
NEIL ALLGOOD	11931 WALLINGSFORD RD	NNW / 0.140 mi.	*238*	*564*
DONALD LUBACKH	11921 WALLINGSFORD RD	NNW / 0.140 mi.	*239*	*565*
TOM DENTON	11661 REAGAN ST	NNE / 0.144 mi.	*249*	*573*
TGI	10852 KYLE ST	NNE / 0.147 mi.	*250*	*574*
DONALD MOSS	11322 WALLINGSFORD RD	N / 0.148 mi.	*252*	*583*
MCI SALES AND SERVICE INC	10850 PORTAL DR	NNE / 0.152 mi.	*DQ256*	*587*
EVERGREEN PHARMACEUTICAL OF CALIFORNIA DBA PHARMACY ADVANTAGE	10751 NOEL ST	NE / 0.153 mi.	*257*	*591*
VCA ROSSMOOR EL DORADO ANIMAL HOSPITAL	10832 LOS ALAMITOS BLVD	N / 0.157 mi.	*265*	*603*
BROOKE ROGERS	11332 REAGAN ST	NNE / 0.159 mi.	*266*	*605*
MARLENE ASCH	11241 REAGAN ST	NNE / 0.159 mi.	*267*	*605*
FRANK MIGRO	11292 REAGAN ST.	NNE / 0.159 mi.	*268*	*606*
JOHN BEHRENS	4002 HOWARD AVE APT 13	NNE / 0.161 mi.	*269*	*607*
GEORGE KARAHALIOS	4461 HOWARD AVE APT 18	NE / 0.164 mi.	*DV270*	*608*
GEORGE KARHALIOS TRUST 1990	4461 HOWARD AVE APT 15	NE / 0.164 mi.	*DV271*	*608*
BONNIE MAULER	4651 GREEN AVE	NE / 0.173 mi.	*278*	*613*
JIFFY LUBE #1740	3311 KATELLA AVE	N / 0.176 mi.	*DY279*	*613*
TREND OFFSET PRINTING SERVICES INC	3791 CATALINA ST	NNE / 0.184 mi.	*EB290*	*636*
EDWARD GONZALES	3341 RUTH ELAINE DR	N / 0.185 mi.	*292*	*683*
SHOUMAKER CUSTOM FINISHING	10831 BLOOMFIELD	NNE / 0.188 mi.	*EC293*	*684*
LOS ALAMITOS MEDICAL CENTER	10831 BLOOMFIELD ST STE B	NNE / 0.188 mi.	*EC294*	*692*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
GREG SINGLETON	3342 BRADBURY RD UNIT 23	WNW / 0.189 mi.	*296*	*693*
DANA MALLARI	11851 CHERRY ST	NE / 0.210 mi.	*301*	*697*
PHILLIP STRAUSS	3302 QUAIL RUN RD	NNW / 0.225 mi.	*310*	*705*
ANDRES BRICENO	3282 ORANGEWOOD AVE	NNW / 0.236 mi.	*312*	*707*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
STERLING PATHOLOGY NATIONAL LABS	3020 OLD RANCH PKWY STE 300	SSW / 0.000 mi.	*12*	*87*
STERLING PATHOLOGY NATIONAL LABORATORIES	3030 OLD RANCH PKWY STE 430	SSW / 0.000 mi.	*BA30*	*127*
OLSSON CONSTRUCTION INC	3030 OLD RANCH PKWY	SSW / 0.000 mi.	*BA32*	*133*
DEPT OF TRANSPORTATION CALTRANS	3030 OLD RANCH PKWY STE 376	SSW / 0.000 mi.	*BA33*	*134*
BIXBY OFFICE PARK	3030 OLD RANCH PKWY	SSW / 0.000 mi.	*BA34*	*136*
LEISURE WORLD AUTOMOTIVE 76	13980 SEAL BEACH BLVD	SSW / 0.006 mi.	*CT81*	*282*
SEAL BEACH VILLAGE I LP	13930 SEAL BEACH BLVD	SSW / 0.009 mi.	*102*	*335*
ANDREW SLAY	11802 WEATHERBY RD	NNW / 0.090 mi.	*142*	*409*
SCOTT & SONA PALMER	11592 WEATHERBY RD	N / 0.090 mi.	*143*	*409*
FELIX SAGURAN	3201 YELLOWTAIL DR	SSW / 0.035 mi.	*146*	*412*
GARY MATROX	3171 YELLOWTAIL DR.	SSW / 0.035 mi.	*147*	*412*
VICTOR BELLO	3102 YELLOWTAIL DR	SSW / 0.035 mi.	*148*	*413*
SCOTT MORELL	11851 PINE ST	NNE / 0.093 mi.	*150*	*415*
CHARLES DOCHETTE	3082 YELLOWTAIL DR.	SW / 0.037 mi.	*153*	*418*
ARGON FLOR	3531 THOR AVE	N / 0.043 mi.	*164*	*437*
MALLREEN ALLEN	12801 SILVER FOX RD	SSW / 0.053 mi.	*166*	*438*
CRISTINE HAWKS	12791 SILVER FOX RD	SSW / 0.056 mi.	*170*	*457*
ROBERT GREB	13701 ANNANDALE DR # 013G	SSW / 0.060 mi.	*171*	*457*
SEAL WEST CHEVRON	2950 WESTMINSTER AVE	SSW / 0.089 mi.	*CZ185*	*472*
MITCHELL 15 INC	1900 MCKINNEY WAY	SSW / 0.097 mi.	*209*	*529*
JANET WHISENANT	12782 OAK WAY DR	SW / 0.098 mi.	*211*	*533*
HUANG, TED	3332 ROSSMOOR WAY	NNW / 0.160 mi.	*212*	*534*
JEAN ACKERMAN	13671 ANNANDALE DR APT 9L	SSW / 0.109 mi.	*213*	*534*
VERIZON CALIFORNIA INCORPORATED	2400 BEVERLY MANOR DR	SW / 0.173 mi.	*222*	*544*
JAMES GAY	13741 ANNANDALE DR APT 19D	SSW / 0.129 mi.	*DM226*	*548*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZNET - CA: Listing of hazardous waste manifests from when hazardous waste is transported from generators to permitted recycling treatment storage or disposal facilities by registered hazardous waste transporters

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BYRON MCDONALD	13741 ANNANDALE DR APT 19I	SSW / 0.129 mi.	*DM227*	*548*
MARY PETERSON	3182 DRUID LN	SW / 0.140 mi.	*240*	*566*
JOAN JAY	3261 DRUID LN	SW / 0.140 mi.	*241*	*567*
ED FILHART	3329 DRUID LN	SSW / 0.141 mi.	*242*	*567*
BILLIE STRICKLAND	3251 DRUID LN	SW / 0.141 mi.	*243*	*568*
MARTHA ROBINSON	3282 DRUID LN	SW / 0.141 mi.	*DP244*	*569*
MARTHA ROBINSON	3282 DRUID LN	SW / 0.141 mi.	*DP245*	*570*
TUAN DAO	3281 DRUID LN	SW / 0.141 mi.	*246*	*570*
SUSAN THOMAS	1891 SAINT JOHN RD # D	SW / 0.142 mi.	*247*	*571*
DAVID ZAHN	3012 ROWENA DR	SW / 0.148 mi.	*251*	*583*
AKSAMIT, PATRICIA	1841 MCKINNEY WAY APT 24G	SSW / 0.150 mi.	*253*	*584*
DENNY'S RESTAURANT	2940 WESTMINSTER AVE	SSW / 0.150 mi.	*254*	*585*
CHRIS BLANKENSHIP	11702 CHERRY ST.	NNE / 0.210 mi.	*262*	*600*
MICHELLE CARMODY	3052 DRUID LN	SW / 0.157 mi.	*263*	*600*
ROSSMOOR SCHOOL	3272 SHAKESPEARE DR	NNW / 0.236 mi.	*283*	*622*
BILL JAYMES	400 MONTECITO RD UNIT 20	WSW / 0.247 mi.	*297*	*694*
ROBERT ZAMBENINI	3241 HILLROSE DR	SW / 0.193 mi.	*298*	*694*
LORETTA FOWLER	3191 HILLROSE DR.	SW / 0.194 mi.	*299*	*695*
INICE SMITH	2951 YELLOWTAIL DRIVE	SW / 0.200 mi.	*300*	*696*
DAN SILVERIO	13751 SAINT ANDREWS DR APT 35I	SSW / 0.216 mi.	*306*	*702*
LOS ALAMITOS ROSSMORE LIBRARY	12700 MONTECITO RD	SW / 0.223 mi.	*309*	*705*
LAWRENCE CAMPBELL	2932 YELLOWTAIL DR	SW / 0.226 mi.	*311*	*706*
MARIA PORRAS	12300 MONTECITO RD APT 38	WSW / 0.242 mi.	*314*	*708*
ROSSMOOR PARK OWNERS ASSOCIATION	12200 MONTECITO RD	W / 0.242 mi.	*EJ315*	*709*
ROSSMOOR PARK HOA	12200 MONTECITO RD	W / 0.242 mi.	*EJ316*	*709*
ROSSMOOR PARK CO MANAGEMENT TRUST TRANS PACIFIC	12200 MONTECITO RD	W / 0.242 mi.	*EJ317*	*710*
DONALD LATHAM	3217 WENDY WAY	NW / 0.249 mi.	*322*	*714*

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
BED BATH AND BEYOND #412	12390 SEAL BEACH BLVD	S / 0.000 mi.	*1*	*46*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
CVS PHARMACY #9551	12490 SEAL BEACH BLVD	S / 0.000 mi.	*P3*	*50*
VONS #2285	11322 LOS ALAMITOS BLVD	N / 0.000 mi.	*BC15*	*93*
TARGET STORE #1328	12300 SEAL BEACH BLVD	S / 0.000 mi.	*28*	*126*
SEAL BEACH MOBIL	***12240 SEAL BEACH BLVD***	***S / 0.000 mi.***	*G29*	*127*
HOMEGOODS #250	12343 SEAL BEACH BLVD	S / 0.006 mi.	*M83*	*313*
MARSHALLS #1088	12325 SEAL BEACH BLVD	S / 0.007 mi.	*K85*	*314*
ROSSMOOR CLEANERS	12161 SEAL BEACH BLVD	NNW / 0.007 mi.	*86*	*315*
RUSSELL CONKLE 76 SERVICE	***12071 SEAL BEACH BLVD***	***N / 0.007 mi.***	*I88*	*318*
RITE AID #5515	12541 SEAL BEACH BLVD	S / 0.008 mi.	*S89*	*318*
LOS ALAMITOS ARCO	***11171 LOS ALAMITOS BLVD***	***N / 0.010 mi.***	*BL107*	*347*
M & N COASTLINE AUTO & TIRE	11121 LOS ALAMITOS BLVD	N / 0.010 mi.	*BR112*	*359*
TESORO SHELL # 68554	***10961 LOS ALAMITOS***	***N / 0.028 mi.***	*BZ134*	*398*
CVS PHARMACY #4043	***3401 KATELLA AVE***	***N / 0.069 mi.***	*173*	*459*
GRANADA ONE HOUR CLEANER	3391 KATELLA AVE	N / 0.093 mi.	*DH207*	*527*
SCREEN GEMS SILKSCREENING COMPANY	10857 PORTAL DR	NNE / 0.116 mi.	*217*	*539*
PACIFIC COAST TOOL & DIE INC	10891 BLOOMFIELD ST	NNE / 0.129 mi.	*DL225*	*547*
MCI SALES AND SERVICE INC	10850 PORTAL DR	NNE / 0.153 mi.	*DT261*	*599*
TREND OFFSET PRINTING SERVICES	3791 CATALINA ST	NNE / 0.182 mi.	*286*	*626*
D T AUTOMOTIVE	10831 BLOOMFIELD ST	NNE / 0.188 mi.	*ED295*	*693*
PRESTIGE CLEANERS	***10774 LOS ALAMITOS BLVD***	***N / 0.215 mi.***	*EF302*	*698*
GANAHL LUMBER CO	***10722 REAGAN ST***	***N / 0.271 mi.***	*EN329*	*724*
DYNAMIC AVIATION GROUP	***3802 CONSTITUTION***	***NNE / 0.275 mi.***	*330*	*724*
OLD RANCH COUNTRY CLUB LLC	***3901 LAMPSON AVE***	***SSE / 0.277 mi.***	*331*	*725*
ALLIANCE SPACESYSTEMS LLC	***4398 CORPORATE CENTER DR***	***NE / 0.352 mi.***	*336*	*733*
TIMKEN AEROSPACE BEARING REPAIR	4422 CORPORATE CENTER DR	NE / 0.354 mi.	*337*	*734*
DYNALECTRIC/KDC INC	4462 CORPORATE CENTER DR	NE / 0.355 mi.	*338*	*734*
NORMS AUTOMOTIVE CENTER	3432 SAUSALITO ST	N / 0.380 mi.	*341*	*740*
GEMINI FOREST PRODUCTS	3551 BRIGGEMAN ST	N / 0.382 mi.	*343*	*743*
TRUCK GEARS INCORPORATED	10551 HUMBOLT ST	NNE / 0.382 mi.	*344*	*743*
FRED GUYS AUTO BODY INC	10813 LOS VAQUEROS CIR	NNE / 0.384 mi.	*345*	*743*
NORMS AUTOMOTIVE CENTER INC A	3441 SAUSALITO ST	N / 0.385 mi.	*346*	*744*
SPINELLI GRAPHICS	10631 BLOOMFIELD ST	NNE / 0.385 mi.	*347*	*744*
AUTO LIFT SERVICES	10764 LOS VAQUEROS CIR	NNE / 0.387 mi.	*348*	*744*
THERMOPOWER INDUSTRIES	10570 HUMBOLT ST	NNE / 0.421 mi.	*350*	*746*
PRINT N COPY CENTER	4446 CERRITOS AVE	NNE / 0.496 mi.	*354*	*753*
CIRCLE K #2211150	***3971 CERRITOS AVE***	***NNE / 0.503 mi.***	*EP357*	*761*

ADDITIONAL ENVIRONMENTAL RECORDS *(cont.)*

OTHER ASCERTAINABLE RECORDS (cont.)

HAZWASTE_ORANGE COUNTY - CA: Orange county hazardous waste facilities

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
AD'S SERVICE CENTER	3971 CERRITOS AVE	NNE / 0.503 mi.	*EP358*	*761*
COASTLINE AUTO CARE	3400 CERRITOS AVE	N / 0.505 mi.	*360*	*762*
MONTE COLLINS (BACKHOE EQUIP)	***3342 CERRITOS AVE***	***N / 0.521 mi.***	*EQ361*	*763*
SEAL BEACH CHEVRON	***4000 LAMPSON AVE***	***SE / 0.524 mi.***	*363*	*764*
THE BOEING COMPANY - SEAL BEACH COMPLEX	***2201 SEAL BEACH BLVD***	***SSW / 0.542 mi.***	*364*	*765*
LOS ALAMITOS RACE COURSE	***4961 KATELLA AVE***	***ENE / 0.596 mi.***	*365*	*765*
H & S 16	***5100 KATELLA AVE***	***ENE / 0.612 mi.***	*366*	*766*
ORLANDO SPRING CORPORATION	11131 WINNERS CIR	ENE / 0.806 mi.	*373*	*771*
NORMS AUTO COLLISION CENTER	11042 WINNERS CIR	ENE / 0.806 mi.	*ER374*	*771*
INDEPENDENT CAR SPECIALISTS	11042 WINNERS CIR	ENE / 0.806 mi.	*ER375*	*771*
COOLANT MANAGEMENT SERVICES	***11052 VIA EL MERCADO***	***ENE / 0.886 mi.***	*376*	*772*
ACE SAW & SUPPLY	5420 KATELLA AVE	ENE / 0.928 mi.	*378*	*773*
COSTCO WHOLESALE #748	5401 KATELLA AVE	ENE / 0.933 mi.	*379*	*773*
PURSCHE FARMS	***800 SEAL BEACH BLVD***	***SSW / 0.973 mi.***	*ES381*	*774*
TRUE POSITION DIE CO	5480 KATELLA AVE	ENE / 0.982 mi.	*407*	*850*
WIRE TECH EDM INC	5450 KATELLA STE 110	ENE / 0.991 mi.	*409*	*851*
UNION GAS	***4002 BALL RD***	***NNE / 0.994 mi.***	*410*	*852*

LOWER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
STERLING PATHOLOGY MEDICAL CORPORATION	3030 OLD RANCH PKWY	SSW / 0.000 mi.	*Z13*	*92*
LEISURE WORLD AUTOMOTIVE 76	***13980 SEAL BEACH BLVD***	***SSW / 0.008 mi.***	*CU90*	*319*
H & S 2	***2950 WESTMINSTER AVE***	***SSW / 0.089 mi.***	*CZ186*	*474*
GOLDEN RAIN FOUNDATION	***1280 GOLDEN RAIN RD***	***SW / 0.709 mi.***	*370*	*768*
DENDREON CORPORATION	***1700 SATURN WAY***	***SSW / 0.778 mi.***	*371*	*770*
LEISURE WORLD TRAILER CLUB	13599 EL DORADO DR	SW / 0.799 mi.	*372*	*770*

HWP - CA: Facility listing of the Department of Toxic Substance Control's hazardous waste transporters and corrective action

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
SAFETY-KLEEN	***3876 FLORISTA ST***	***NNE / 0.089 mi.***	*DB193*	*480*

NFA - CA: No further action cleanup sites listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
JOINT FORCES TRAINING BASE, LOS ALAMITOS	***LEXINGTON & FARQUHAR***	***NE / 0.248 mi.***	*321*	*713*

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

OTHER ASCERTAINABLE RECORDS (cont.)

NFE - CA: Unconfirmed contaminated properties listing

EQUAL/HIGHER ELEVATION	SITE ADDRESS	DIRECTION/DISTANCE	MAP ID	PAGE
LOS ALAMITOS ELEMENTARY SCHOOL EASEMENT	*10862 BLOOMFIELD STREET*	*NNE / 0.138 mi.*	*DO234*	*558*

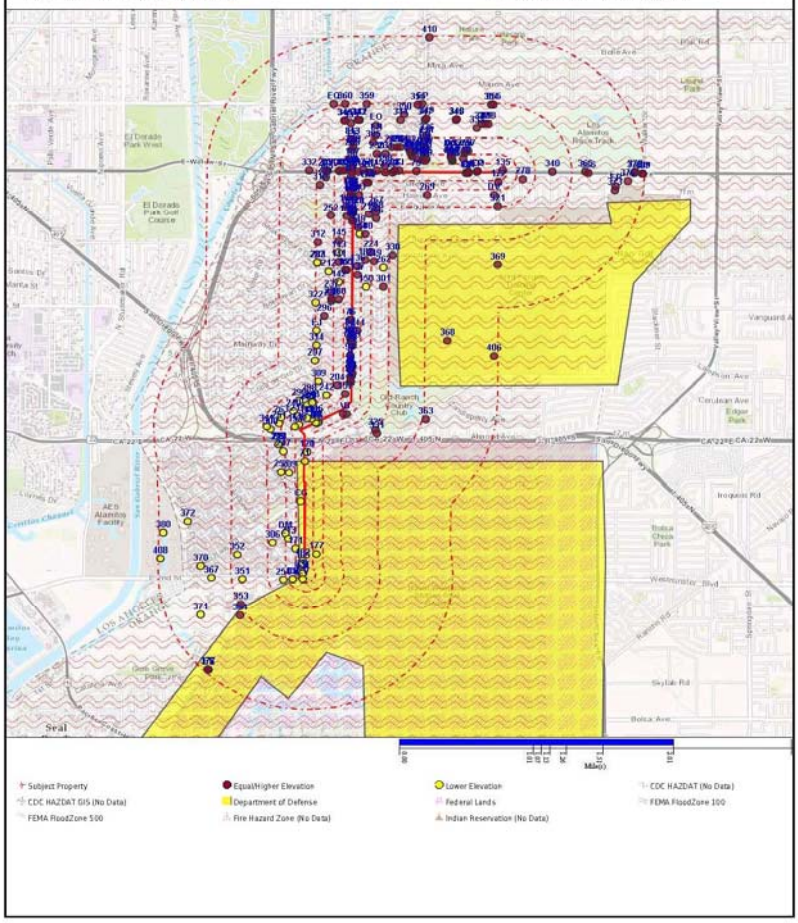
Following sites were unable to be mapped.

SITE NAME:	DATABASE(S):
1X HARBOR RIDGE ASSOCIATION	HAZNET - CA
1X LOS ALAMITOS RACE COURSE	HAZNET - CA
1X LOS ALAMITOS UNIFIED SCHOOL DISTRICT	HAZNET - CA
CA ARMED FORCES RESERVE CENTER	HAZNET - CA
CALTRANS DIST 12/CONSTR/EA12-079204	HAZNET - CA
CITY OF LOS ALAMITOS	FRS
DEPARTMENT OF THE ARMY	AST_Orange County - CA
ECS/6/ASF28 - ARMY RESERVE	HAZNET - CA
GEORGE M KARAHALIOS TRUST	HAZNET - CA
LOS ALAMITOS AFRC	HAZNET - CA
LOS ALAMITOS ARMY RESERVE	HAZNET - CA
MIKE WAUTERS	HAZNET - CA
SADDLEBACK AEROSPACE	HAZNET - CA
SHELL	HAZNET - CA
SOUTH REGION HIGH SCHOOL #8, SITE 18	ENVIROSTOR - CA, SCH - CA
U S ARMED FORCES RESERVE CTR	INDUSTRIAL CLEANUP_ORANGE COUNTY - CA
VERIZON CALIFORNIA INCORPORATED	HAZNET - CA
WEST MACHINERY & TOOL SALES	HAZNET - CA

PROPERTY PROXIMITY MAP

SUBJECT NAME: Seal Beach Interceptor, Los Alamitos Sub-Trunk, and Westside Reli
ADDRESS: Los Alamitos Blvd, Los Alamitos, CA
LAT/LONG: 33.785377 / -118.071876

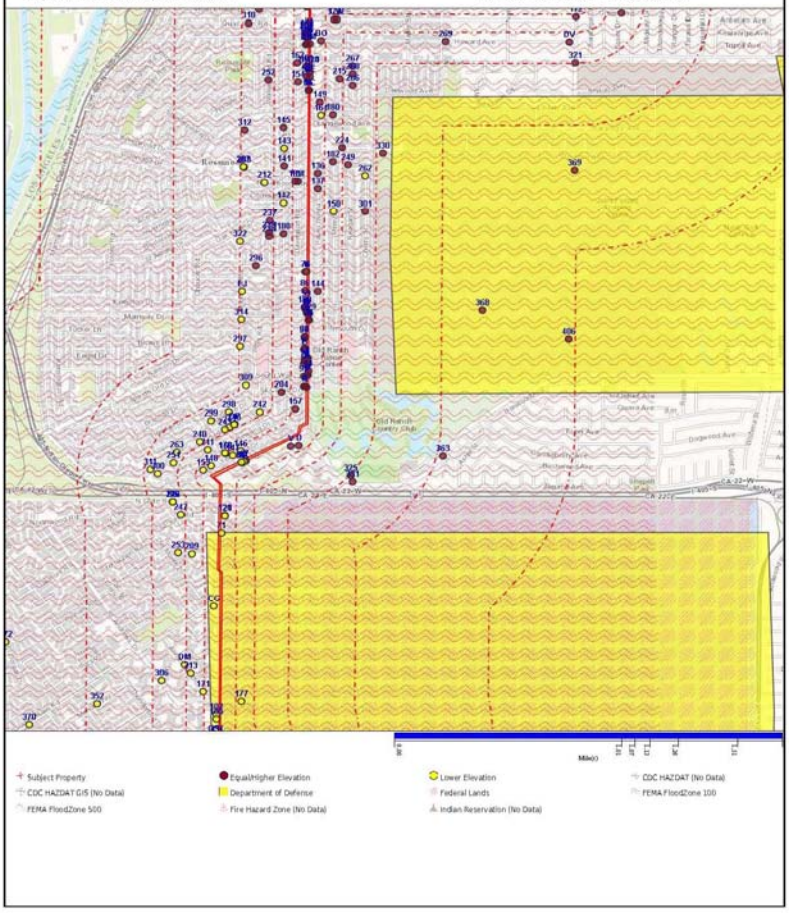
PREPARED FOR: Jacobs Engineering
ORDER #: 2454
REPORT DATE: December 04, 2015



AREA MAP

SUBJECT NAME: Seal Beach Interceptor, Los Alamitos Sub-Truck, and Westside Reli
ADDRESS: Los Alamitos Blvd, Los Alamitos, CA
LAT/LONG: 33.785377 / -118.071876

PREPARED FOR: Jacobs Engineering
ORDER #: 2454
REPORT DATE: December 04, 2015



Map Findings Summary does not include summary of Map Layers Data.

STANDARD ENVIRONMENTAL RECORDS

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL CERCLIS LIST								
CERCLIS		0.500	0	0	0	NR	NR	0
CERCLIS NFRAP		0.500	2	0	0	NR	NR	2
FEDERAL FACILITY		1.000	0	0	0	0	NR	0
FEDERAL RCRA CORRACTS FACILITIES LIST								
CORRACTS		1.000	1	0	0	1	NR	2
FEDERAL DELISTED NPL SITE LIST								
DELISTED NPL		1.000	0	0	0	0	NR	0
DELISTED PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL ERNS LIST								
ERNS		SP	NR	NR	NR	NR	NR	0
FEDERAL INSTITUTIONAL CONTROLS / ENGINEERING CONTROLS REGISTRIES								
FED E C		0.500	0	0	0	NR	NR	0
FED I C		0.500	0	0	0	NR	NR	0
FED-PUBLISHED INSTITUTIONAL CONTROLS		0.500	0	0	0	NR	NR	0
RCRA IC_EC		0.250	0	0	NR	NR	NR	0
FEDERAL NPL SITE LIST								
NPL		1.000	0	0	0	0	NR	0
NPL LIENS		SP	NR	NR	NR	NR	NR	0
PART NPL		1.000	0	0	0	0	NR	0
PROPOSED NPL		1.000	0	0	0	0	NR	0
FEDERAL RCRA GENERATORS LIST								
RCRA_CESQG		0.250	1	0	NR	NR	NR	1
RCRA_LQG		0.250	9	2	NR	NR	NR	11
RCRA_SQG		0.250	23	16	NR	NR	NR	39

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
FEDERAL RCRA NON-CORRACTS TSD FACILITIES LIST								
RCRA_TSDF		0.500	0	0	0	NR	NR	0
STATE AND TRIBAL REGISTERED STORAGE TANK LISTS								
FEMA UST		0.250	0	0	NR	NR	NR	0
INDIAN UST R1		0.250	0	0	NR	NR	NR	0
INDIAN UST R10		0.250	0	0	NR	NR	NR	0
INDIAN UST R2		0.250	0	0	NR	NR	NR	0
INDIAN UST R4		0.250	0	0	NR	NR	NR	0
INDIAN UST R5		0.250	0	0	NR	NR	NR	0
INDIAN UST R6		0.250	0	0	NR	NR	NR	0
INDIAN UST R7		0.250	0	0	NR	NR	NR	0
INDIAN UST R8		0.250	0	0	NR	NR	NR	0
INDIAN UST R9		0.250	0	0	NR	NR	NR	0
AST - CA		0.250	1	0	NR	NR	NR	1
AST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_ORANGE COUNTY - CA		0.250	2	1	NR	NR	NR	3
AST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
AST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
BP HW OUT_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0
BUSINESS INVENTORY_SAN MATEO COUNTY - CA		0.250	0	0	NR	NR	NR	0
CLOSED UST_VENTURA COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
CS_PLACER COUNTY - CA		1.000	0	0	0	0	NR	0
FID UST - CA		0.250	12	3	NR	NR	NR	15
HIST UST - CA		0.250	15	4	NR	NR	NR	19
LOP_SANTA CLARA COUNTY - CA		0.500	0	0	0	NR	NR	0
SITE LIST_CONTRA COSTA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST - CA		0.250	12	3	NR	NR	NR	15
UST_ALAMEDA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF LONG BEACH - CA		0.250	0	0	NR	NR	NR	0
UST_CITY OF TORRANCE - CA		0.250	0	0	NR	NR	NR	0
UST_EL SEGUNDO CITY - CA		0.250	0	0	NR	NR	NR	0
UST_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MARIN COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_NAPA COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_ORANGE COUNTY - CA		0.250	7	0	NR	NR	NR	7
UST_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_RIVERSIDE COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN FRANCISCO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SAN JOAQUIN COUNTY - CA		0.250	0	0	NR	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
UST_SOLANO COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_SUTTER COUNTY - CA		0.250	0	0	NR	NR	NR	0
UST_YOLO COUNTY - CA		0.250	0	0	NR	NR	NR	0
RECORDS OF EMERGENCY RELEASE REPORTS								
HMIRS (DOT)		SP	NR	NR	NR	NR	NR	0
STATE AND TRIBAL LEAKING STORAGE TANK LISTS								
INDIAN LUST R1		0.500	0	0	0	NR	NR	0
INDIAN LUST R10		0.500	0	0	0	NR	NR	0
INDIAN LUST R2		0.500	0	0	0	NR	NR	0
INDIAN LUST R4		0.500	0	0	0	NR	NR	0
INDIAN LUST R5		0.500	0	0	0	NR	NR	0
INDIAN LUST R6		0.500	0	0	0	NR	NR	0
INDIAN LUST R7		0.500	0	0	0	NR	NR	0
INDIAN LUST R8		0.500	0	0	0	NR	NR	0
INDIAN LUST R9		0.500	0	0	0	NR	NR	0
LUST ORANGE COUNTY - CA		0.500	0	0	1	NR	NR	1
LUST REG 1 - CA		0.500	0	0	0	NR	NR	0
LUST REG 2 - CA		0.500	0	0	0	NR	NR	0
LUST REG 3 - CA		0.500	0	0	0	NR	NR	0
LUST REG 4 - CA		0.500	0	0	0	NR	NR	0
LUST REG 5 - CA		0.500	0	0	0	NR	NR	0
LUST REG 6 - CA		0.500	0	0	0	NR	NR	0
LUST REG 7 - CA		0.500	0	0	0	NR	NR	0
LUST REG 8 - CA		0.500	21	6	13	NR	NR	40
LUST REG 9 - CA		0.500	0	0	0	NR	NR	0
LUST_HAZMAT_YOLO COUNTY - CA		0.500	0	0	0	NR	NR	0

STANDARD ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LUST_KERN COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_RIVERSIDE COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN FRANCISCO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SAN MATEO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SOLANO COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SONOMA COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_SUTTER COUNTY - CA		0.500	0	0	0	NR	NR	0
LUST_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
SLIC REG 1 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 2 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 3 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 4 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 5 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 6 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 7 - CA		0.500	0	0	0	NR	NR	0
SLIC REG 8 - CA		0.500	4	0	0	NR	NR	4
SLIC REG 9 - CA		0.500	0	0	0	NR	NR	0
SLIC_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
CORRECTIVE ACTION_RIVERSIDE COUNTY - CA		1.000	0	0	0	0	NR	0
TOXIC SITE_SACRAMENTO COUNTY - CA		1.000	0	0	0	0	NR	0

STANDARD ENVIRONMENTAL RECORDS *(cont.)*

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
STATE AND TRIBAL LANDFILL AND/OR SOLID WASTE DISPOSAL SITE LISTS								
LF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
LF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF/LF - CA		0.500	1	0	0	NR	NR	1
SWF_LOS ANGELES COUNTY - CA		0.500	0	0	0	NR	NR	0
SWF_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT NPL								
RESPONSE - CA		1.000	1	1	0	0	NR	2
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
TOXIC PITS - CA		1.000	0	0	0	0	NR	0
STATE AND TRIBAL VOLUNTARY CLEANUP SITES								
VCP - CA		0.500	1	0	0	NR	NR	1
OTHER ASCERTAINABLE RECORDS								
RCRA_FULL_DETAIL		0.250	0	0	NR	NR	NR	0
RCRA_NONGEN		0.250	3	2	NR	NR	NR	5
ADDITIONAL ENVIRONMENTAL RECORDS								
LOCAL LISTS OF LANDFILL / SOLID WASTE DISPOSAL SITES								
DEBRIS REGION 9		0.500	0	0	0	NR	NR	0
INDIAN ODI R8		0.500	0	0	0	NR	NR	0
ODI		0.500	0	0	0	NR	NR	0
TRIBAL ODI		0.500	0	0	0	NR	NR	0
HAULERS - CA		0.500	0	0	0	NR	NR	0
SWRCY - CA		0.500	0	0	0	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
LOCAL BROWNFIELD LISTS								
FED BROWNFIELDS		0.500	0	0	0	NR	NR	0
TRIBAL BROWNFIELDS		0.500	0	0	0	NR	NR	0
LOCAL LISTS OF HAZARDOUS WASTE / CONTAMINATED SITES								
FED CDL		SP	NR	NR	NR	NR	NR	0
US HIST CDL		SP	NR	NR	NR	NR	NR	0
CALARP_KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
CASE LIST_SAN DIEGO COUNTY - CA		0.500	0	0	0	NR	NR	0
CDL - CA		SP	NR	NR	NR	NR	NR	0
CS_NAPA COUNTY - CA		0.500	0	0	0	NR	NR	0
SCH - CA		0.250	0	2	NR	NR	NR	2
LOCAL LAND RECORDS								
LIENS 2		SP	NR	NR	NR	NR	NR	0
DEED - CA		0.500	0	0	0	NR	NR	0
LIENS - CA		SP	NR	NR	NR	NR	NR	0
STATE- AND TRIBAL - EQUIVALENT CERCLIS								
ENVIROSTOR - CA		1.000	6	3	0	5	NR	14
RECORDS OF EMERGENCY RELEASE REPORTS								
INDUSTRIAL CLEANUP_ORANGE COUNTY - CA		0.125	8	NR	NR	NR	NR	8
LDS - CA		SP	NR	NR	NR	NR	NR	0
MCS - CA		1.000	0	0	0	20	NR	20
SML_LOS ANGELES COUNTY - CA		0.125	0	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
OTHER ASCERTAINABLE RECORDS								
AFS		SP	NR	NR	NR	NR	NR	0
BRS		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT		SP	NR	NR	NR	NR	NR	0
CDC HAZDAT GIS		SP	NR	NR	NR	NR	NR	0
COAL ASH DOE		0.500	0	0	0	NR	NR	0
COAL ASH EPA		0.500	0	0	0	NR	NR	0
COAL GAS		1.000	1	0	1	1	NR	3
CONSENT (DECREES)		1.000	0	0	0	0	NR	0
DIGITAL OBSTACLE		1.000	0	0	2	5	NR	7
DOD		1.000	2	0	0	0	NR	2
DOT OPS		SP	NR	NR	NR	NR	NR	0
ENOI		SP	NR	NR	NR	NR	NR	0
FA HWF		SP	NR	NR	NR	NR	NR	0
FEDLAND		1.000	2	0	0	0	NR	2
FRS		SP	NR	NR	NR	NR	NR	0
FTTS		SP	NR	NR	NR	NR	NR	0
FTTS INSP		SP	NR	NR	NR	NR	NR	0
FUDS		1.000	0	0	0	0	NR	0
ICIS		SP	NR	NR	NR	NR	NR	0
INDIAN RESERVATION		1.000	0	0	0	0	NR	0
LEAD_SMELTER		SP	NR	NR	NR	NR	NR	0
LUCIS		0.500	0	0	0	NR	NR	0
MINES		0.250	0	0	NR	NR	NR	0
MLTS		SP	NR	NR	NR	NR	NR	0
OSHA		SP	NR	NR	NR	NR	NR	0
PADS		SP	NR	NR	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
PCB TRANSFORMER		SP	NR	NR	NR	NR	NR	0
RAATS		SP	NR	NR	NR	NR	NR	0
RADINFO		SP	NR	NR	NR	NR	NR	0
RMP		0.500	0	0	0	NR	NR	0
ROD		1.000	0	0	0	0	NR	0
SCRD DRYCLEANERS		0.250	0	0	NR	NR	NR	0
SSTS		SP	NR	NR	NR	NR	NR	0
TOSCA-CHEMICAL		SP	NR	NR	NR	NR	NR	0
TOSCA-PLANT		SP	NR	NR	NR	NR	NR	0
TRANSMISSIONS		1.000	0	0	0	0	NR	0
TRIS		SP	NR	NR	NR	NR	NR	0
UMTRA		0.500	0	0	0	NR	NR	0
AOC_SAN GABRIEL VALLEY - CA		0.500	0	0	0	NR	NR	0
BOND EXPENDITURE PLAN - CA		1.000	0	0	0	1	NR	1
CHMIRS - CA		SP	NR	NR	NR	NR	NR	0
CORTESE - CA		0.500	1	0	0	NR	NR	1
CUPA_FRESNO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DAYCARE - CA		SP	NR	NR	NR	NR	NR	0
DRYCLEANERS - CA		0.250	10	1	NR	NR	NR	11
DRYCLEANERS_AMADOR COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_ANTELOPE VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BAY AREA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_BUTTE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_CALAVERAS COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_COLUSA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EASTERN KERN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_EL DORADO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_FEATHER RIVER - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GLENN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_GREAT BASIN UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_IMPERIAL COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LAKE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_LASSEN COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MENDOCINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MOJAVE DESERT - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_MONTEREY BAY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTH COAST UNIFIED - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SIERRA - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_NORTHERN SONOMA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_PLACER COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
DRYCLEANERS_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN JOAQUIN VALLEY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SAN LOUIS OBISPO - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SANT A BARBARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SHAS TA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SISK IYOU COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_SOUT H COAST - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_TEHA MA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_TUOL UMNE COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_VENT URA COUNTY - CA		0.250	0	0	NR	NR	NR	0
DRYCLEANERS_YOLO -SOLANO COUNTIES - CA		0.250	0	0	NR	NR	NR	0
EMI - CA		SP	NR	NR	NR	NR	NR	0
FA - CA		SP	NR	NR	NR	NR	NR	0
FA 2 - CA		SP	NR	NR	NR	NR	NR	0
GCC_SANTA CLARA VALLEY - CA		0.500	0	0	0	NR	NR	0
HAZMAT INCIDENT_CONTRA COSTA COUNTY - CA		0.500	0	0	0	NR	NR	0
HAZMAT_CITY OF SAN JOSE - CA		0.250	0	0	NR	NR	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
HAZMAT_SACRAMENTO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN BERNARDINO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SAN DIEGO COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZMAT_SANTA CLARA COUNTY - CA		0.250	0	0	NR	NR	NR	0
HAZNET - CA		0.250	79	59	NR	NR	NR	138
HAZWASTE_ORANGE COUNTY - CA		1.000	19	5	15	21	NR	60
HIGH FIRE - CA		1.000	0	0	0	0	NR	0
HIST CORTESE - CA		0.500	0	0	0	NR	NR	0
HMS_LOS ANGELES COUNTY - CA		0.250	0	0	NR	NR	NR	0
HWM COMMERCIAL FACILITIES - CA		0.250	0	0	NR	NR	NR	0
HWP - CA		1.000	1	0	0	0	NR	1
HWT - CA		0.250	0	0	NR	NR	NR	0
LUFT_ALAMEDA COUNTY - CA		0.500	0	0	0	NR	NR	0
MWMP - CA		0.250	0	0	NR	NR	NR	0
NFA - CA		0.500	0	1	0	NR	NR	1
NFE - CA		0.500	0	1	0	NR	NR	1
PERCHLORATE 2 - CA		0.500	0	0	0	NR	NR	0
PROPOSITION 65 - CA		1.000	0	0	0	0	NR	0
RFR - CA		SP	NR	NR	NR	NR	NR	0
SITES INVENTORY_VENTURA COUNTY - CA		1.000	0	0	0	0	NR	0

ADDITIONAL ENVIRONMENTAL RECORDS ***(cont.)***

DATABASE	SUBJECT PROPERTY	SEARCH DISTANCE (MILES)	<1/8	1/8 - 1/4	1/4 - 1/2	1/2- 1	>1	TOTAL PLOTTED
SWAT - CA		SP	NR	NR	NR	NR	NR	0
VCCP_VENTURA COUNTY - CA		0.500	0	0	0	NR	NR	0
WDS - CA		SP	NR	NR	NR	NR	NR	0
WILDLANDS - CA		1.000	0	0	0	0	NR	0
WIP - CA		0.250	0	0	NR	NR	NR	0

NOTES:

SP - Subject Property

NR - Not Requested at this search distance

Sites may be listed in more than one database

DRAFT

ENVIRONMENTAL IMPACT REPORT FOR

ORANGE COUNTY SANITATION DISTRICT

REHABILITATION OF WESTERN REGIONAL SEWERS

PROJECT NO. 3-64

APPENDIX E

NOISE MODELING RESULTS

OCTOBER 2016

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Table E1: Estimated Construction Noise Levels per Activity

Default Equipment Type	OCSD Equipment	Acoustical Use Factor	Actual Measured Lmax @ 50 feet (dBA)	Quantity of Equipment	Hours of Operation/ Day	Number of Working Days	Workers	Measured at 25 feet (dBA)	Measured at 50 feet (dBA)	Measured at 100 feet (dBA)	Measured at 200 feet (dBA)	Measured at 400 feet (dBA)	Measured at 800 feet (dBA)
Excavation, Installation, Paving (Open Trench)													
All Equipment	All Equipment	Combined Usage	Combined Actual	Combined Equipment	Combined Operations	Combined Working Days	Combined Workers	91.7	88.7	85.7	82.7	79.7	76.7
CIPP Installation													
Pick-up Truck	Felt Truck	40%	75	1	3	167	1	89.1	83.1	77.1	71.1	65.1	59.1
Pick-up Truck	Boiler Truck	40%	75	1	5	167	1						
Generator	Diesel Generator	50%	80.6	1	5	167	0						
Compressor (Air)	1600 CFM Air Compressor	40%	77.7	1	8	167	0						
Pickup Truck	Contractor Support Trucks	40%	75	2	8	167	2						
Pickup Truck	Employee Cars	40%	75	4	2	167	4						
Pickup Truck	Contractor Pickup Truck	40%	75	2	6	167	2						
Pump	Bypass Pumps	50%	80.9	4	10	167	0						

Table E1: Estimated Construction Noise Levels per Activity

Default Equipment Type	OCSD Equipment	Acoustical Use Factor	Actual Measured Lmax @ 50 feet (dBA)	Quantity of Equipment	Hours of Operation/ Day	Number of Working Days	Workers	Measured at 25 feet (dBA)	Measured at 50 feet (dBA)	Measured at 100 feet (dBA)	Measured at 200 feet (dBA)	Measured at 400 feet (dBA)
Manhole Replacement/Rehabilitation												
Excavator	Excavator	40%	80.7	1	8	100	2	88.3	82.3	76.3	70.3	64.3
Front End Loader	Front Loader	40%	79.1	1	8	100	2					
Crane	Crane	16%	80.6	1	4	100	2					
Dump Truck	Dump Truck	40%	76.5	1	4	100	1					
Pickup Truck	Delivery Truck	40%	75	1	4	100	1					
Pickup Truck	Contractor Support Trucks	40%	75	2	6	100	2					
Concrete Mixer Truck	Concrete Truck	20%	81.4	1	4	100	1					
Pump Station												
Backhoe	Backhoe	40%	77.6	1	6	30	1	100.4	94.4	88.4	82.4	76.4
Excavator	Excavator	40%	80.7	1	6	30	1					
Dump Truck	Dump Truck	40%	76.5	1	6	30	1					
Crane	Crane	16%	80.6	1	6	30	1					
Pick-up Truck	Delivery Truck	40%	75	1	4	10	1					
Concrete Mixer Truck	Concrete Truck	20%	81.4	1	4	5	1					
Pick-up Truck	Contractor Support Trucks	40%	75	4	8	180	8					
Compressor (Air)	Air Compressor	40%	77.7	1	6	90						
Generator	Diesel	50%	80.6	1	6	90						

	Generator												
Pumps	Bypass Pumps	50%	80.9	4	24	30							

Table E1: Estimated Construction Noise Levels per Activity

Default Equipment Type	OCSD Equipment	Acoustical Use Factor	Actual Measured Lmax @ 50 feet (dBA)	Quantity of Equipment	Hours of Operation/ Day	Number of Working Days	Workers	Measured at 25 feet (dBA)	Measured at 50 feet (dBA)	Measured at 100 feet (dBA)	Measured at 200 feet (dBA)	Measured at 400 feet (dBA)	Measured at 800 feet (dBA)
Pump Station													
Vibratory Pile Driver	Vibratory Equipment	40%	80.7	1	6	10	1	See above					
Drill Rig Truck	Drill Rig	20%	79.1	1	6	10	1						

Table E2: Summary of Construction Noise Analysis Results

Representative Area and Noise Measurement Location	Noise Sensitive Receptors	Minimum Distances to Noise Sensitive Receivers	Ambient Noise Level (dBA)*	Estimated Construction Noise Emissions at 25 feet (dBA)	Temporary Impacts?	
					Exceed Local Thresholds?	Increase resulting in 90 dBA or more?
Orange-Western Sub-Trunk Rehabilitation						
Western Avenue – M1	Residential, Schools, Places of Worship, Recreational	25 to 30 feet	77	89	No	No
Orange Avenue – M5	Residential, Schools, Places of Worship, Recreational	25 to 30 feet	63	89	No	No
Los Alamitos Sub-Trunk Replacement						
Denni Street from La Palma Avenue to Lincoln Avenue – M2 and M3	Residential, Recreational, Schools	15 to 30 feet	48	92	No	**Yes**
Denni Street from Lincoln Avenue to Orange Avenue – M4	Residential, Recreational, Schools	15 to 30 feet	56	92	No	**Yes**
Orange Avenue West of Denni Street – M5	Residential, Schools, Recreational	15 to 30 feet	63	92	No	**Yes**
Bloomfield Street from Orange Avenue to Ball Road – M6	Residential, Schools	15 to 30 feet	76	92	No	**Yes**
Los Alamitos Sub-Trunk Rehabilitation						
Cerritos Avenue from Bloomfield Street to Chestnut Street – M7	Residential, Schools	45 feet	78	89	No	No
Oak Street from Cerritos Avenue to Katella Avenue – M8	Residential, Schools	15 to 30 feet	60**	89	No	**Yes**
Katella Avenue from Oak Street to	Residential, Places of	45 feet	56	89	No	No

Los Alamitos Boulevard – M9	Worship, Recreational, Schools, Health Care Facilities					
Los Alamitos Boulevard from Katella Avenue to Old Ranch Parkway – M10	Residential, Places of Worship, and Schools	20 to 30 feet	58	89	No	**Yes**
Westside Relief Interceptor Rehabilitation						
Moody Street from Crescent Avenue to Orange Avenue – M4	Residential, Schools, Recreational	25 to 55 feet	56	89	No	No
Orange Avenue East of Denni Street – M5	Residential, Recreational	25 to 30 feet	63	89	No	No
Denni Street from Orange Avenue to Ball Road – M6	Residential, Schools	25 to 30 feet	76	89	No	No
Los Alamitos Boulevard from Rossmoor Center Way to Old Ranch Parkway – M10	Residential, Places of Worship, and Schools	15 to 25 feet	58	89	No	**Yes**
Old Ranch Parkway from Los Alamitos Boulevard to Seal Beach Boulevard – M11	Residential	25 to 45 feet	60	89	No	No
Westside Relief Interceptor Replacement						
Denni Street from Ball Road to Katella Avenue – M6	Residential, Schools	15 to 30 feet	76	92	No	**Yes**
Katella Avenue from Denni Street to Los Alamitos Boulevard – M9	Residential, Places of Worship, Recreational, Schools, Health Care Facilities	15 to 30 feet	56	92	No	**Yes**
Los Alamitos Boulevard from Katella Avenue to	Residential, Places of Worship, and	20 to 30 feet	58	92	No	**Yes**

Rossmoor Center Way – M10	Schools					
Seal Beach Interceptor Rehabilitation						
Seal Beach Boulevard from Old Ranch Parkway to Westminster Boulevard – M12	Residential	50 to 100 feet	65**	89	No	No
Westside Pump Station						
Seal Beach Boulevard from Old Ranch Parkway to Westminster Boulevard – M13	Residential, Places of Worship	25 feet	65**	100	No	**Yes**

*based on estimated Leq at outdoor use as shown in Table 4.9-4
**based on FTA estimated ambient noise level