
Draft

Program Environmental Impact Report

Collection System Improvement Plan

SCH# 2006101018

Prepared for



Orange County Sanitation District

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Prepared by



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Acronyms

AQMP	Air Quality Management Plan
BMP	best management practice
CAA	Clean Air Act
CAAQS	California Ambient Air Quality Standards
Caltrans	California Department of Transportation
CARB	California Air Resources Board
CCR	California Code of Regulations
CDFG	California Department of Fish and Game
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CHRIS	California Historical Resources Information System
CIP	Capital Improvement Plan
CIPP	cured-in-place pipe
CO	carbon monoxide
CPUC	California Public Utilities Commission
CUPAs	Certified Uniform Program Agencies
CWA	Clean Water Act
CZMA	Coastal Zone Management Act of 1972
DAMP	Drainage Area Management Plan
dBA	A-weighted decibels
dB	decibel
DOGGR	California Department of Conservation, Division of Oil, Gas, and Geothermal Resources
DTSC	California Department of Toxic Substances Control
EIR	Environmental Impact Report
GWDR	State General Waste Discharge Requirements
HCD	State of California Department of Housing and Community Development
HDPE	high-density polyethylene
I	Interstate

LAFCO	Local Agency Formation Committee
mgd	million gallons per day
MSDS	Material Safety Data Sheet
NAAQS	National Ambient Air Quality Standards
NAHC	California Native American Heritage Commission
NCCP	Natural Community Conservation Plan
NOI	Notice of Intent
NOP	Notice of Preparation
NO ₂	nitrogen dioxide
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
O ₃	ozone
OCFCD	Orange County Flood Control District
OCWD	Orange County Water District
OHP	Office of Historic Preservation
OPR	Governor's Office of Planning and Research
OSHA	Occupational Health and Safety Administration
Pb	lead
PEIR	Program Environmental Impact Report
Plan	Collection System Improvement Plan
PM _{2.5}	fine particulate matter
PM ₁₀	particulate matter less than 10-microns
PVC	polyvinyl chloride
RHNA	Regional Housing Needs Assessments
RDMD	Orange County Resources and Development Management Department
ROC	reactive organic compounds
ROG	reactive organic gas
RPA	Registered Professional Archaeologist
RWQCB	Regional Water Quality Control Board
the Sanitation District	Orange County Sanitation District
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments

SCAQMD	South Coast Air Quality Management District
SCE	Southern California Edison
SCG	Southern California Gas Company
SCRRA	Southern California Regional Rail Authority
SIP	state implementation plan
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SR	State Route
SWMPs	Storm Water Management Plans
SWPCP	Stormwater Pollution Control Plan
SWPPP	Storm Water Pollution Prevention Plan
SWRCB	State Water Resources Control Board
TRPH	total recoverable petroleum hydrocarbons
UBC	Uniform Building Code
USACE	United States Army Corps of Engineers
USDOT	United States Department of Transportation
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
VOC	volatile organic compound

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Executive Summary

ES 1.1 Introduction

The Orange County Sanitation District (Sanitation District) has proposed the Collection System Improvement plan (Plan). The proposed Plan is located within the Sanitation District service area, as shown in Figure 1-1, and includes potential improvements to the regional wastewater collection system to accommodate existing and planned growth in northern and central Orange County. The proposed improvements also will help to maintain, rehabilitate, and upgrade the existing facilities to ensure adequate collection system conditions for the future. The proposed Plan would implement 19 collection system improvement projects proposed to address existing and projected deficiencies in the regional trunk sewer system and repairs, replacements, and minor modifications to collection system facilities.

ES 1.2 Purpose of this Document

This Draft Program Environmental Impact Report (PEIR) addresses the potential environmental impacts that are anticipated to result from construction and operation of the proposed collection system improvement projects evaluated in the proposed Plan. This Draft PEIR has been prepared in accordance with the California Environmental Quality Act (CEQA). The Sanitation District is the Lead Agency for the CEQA process and has independently evaluated, directed, and supervised the preparation of this document.

ES 1.3 Objectives

CEQA requires that a PEIR include a statement of project objectives. The objectives will help the Sanitation District evaluate the proposed Plan and Plan alternatives and will help decision makers select a preferred alternative.

The objectives of the proposed Plan are as follows:

- Upgrade wastewater collection facilities to serve the needs of the Sanitation District service area through 2030
- Ensure compliance with State General Waste Discharge Requirements (GWDR) for wastewater collection agencies by providing adequate capacity within the regional wastewater conveyance system to convey wastewater flows and preventing sanitary sewer overflows
- Implement projects identified in the Capital Improvement Program (CIP) to ensure that wastewater facilities are adequately maintained and upgraded and that capital improvements are scheduled and completed in a timely and cost-effective manner

ES 1.3.1 Description of the Proposed Plan

The proposed Plan consists of 19 improvements to the regional collection system that would address existing and projected deficiencies in the collection system. Major improvements proposed to address existing and projected deficiencies in the regional trunk sewer system are listed in Table ES-1. See Figure 2-1 for locations of proposed improvements. In addition to these major improvements, the Sanitation District performs repairs, replacements, and minor modifications to collection system facilities on an ongoing basis. Most of the collection system improvements take place in street rights-of-way within existing easements. Many of the projects include rehabilitation of existing sewers. Appendix A includes figures depicting each improvement.

TABLE ES-1
Proposed Collection System Improvements

CIP No. ^a	Project Index ^b	Title	Location	Implementation Phase
01-101	SAN-01	Raitt and Bristol Street Sewer Extension	Santa Ana	2007-2010
01-17		Santa Ana Trunk Sewer Rehabilitation	Fountain Valley, Santa Ana	2007-2011
02-49	SAR-02	Taft Branch Improvements	Orange	2012-2014
02-52	EUA-01	Euclid Relief Improvements	Fountain Valley, Santa Ana	2010-2012
02-65	NHP-01,02	Newhope-Placentia and Cypress Trunk Replacement	Anaheim, Fullerton	2010-2015
02-71	EUB-01	Fullerton-Brea Interceptor Sewer Relief	Fullerton	2009-2011
03-55	KNT-01	Westside Relief Interceptor	La Palma, Cypress, Los Alamitos	2011-2013
03-58		Magnolia Trunk Rehabilitation	Fountain Valley, Westminster, Garden Grove, Stanton, Anaheim	2010-2012
03-59	MLR-01	Miller-Holder Trunk Sewer Relief	Buena Park	2010-2012
03-60	KNT-02	Beach Trunk-Knott Interceptor Sewer Relief	Buena Park	2010-2012
05-47		Balboa Trunk Sewer Rehabilitation	Newport Beach	2007-2012
05-█		Newport Beach Force Main Upgrades	Newport Beach	2009-2012
05-61		Bayside Drive Improvement	Newport Beach	2008-2011
05-63	RPT-01	Dover Drive Trunk Sewer Relief	Costa Mesa, Newport Beach	2007-2011
06-17	BPT-01	District 6 Trunk Sewer Relief	Costa Mesa, Newport Beach	2007-2010
06-18	BKR-01	Fairview Road Trunk Sewer Relief	Costa Mesa	2007-2011
07-60	HATS-01	Browning Subtrunk Sewer Relief	Tustin, Unincorporated Orange County	2009-2011
07-62	SUN-01	Von Karman Trunk Sewer Relief	Irvine, Newport Beach	2011-2013
11-25	KNT-03 (30 -99 St. Plan)	Edinger-Bolsa Chica Trunk Improvements	Huntington Beach, Seal Beach	2013-2015

^a Sanitation District Budget Fiscal Years 2006-07 and 2007-08

^b Sanitation District Strategic Plan Update, April 2006 (Job J-101)

ES 1.3.2 Project Alternatives

This Draft PEIR addresses two alternatives to the proposed Plan. Specifically, these include the (1) No Project Alternative and the (2) Trunk Capacity Optimization Alternative. These alternatives are summarized below.

No Project Alternative

The No Project Alternative for Sanitation District strategic planning efforts would be continued implementation of the existing program from the 1989 Master Plan and the 1999 Strategic Plan, which featured collection system improvements to accommodate planned growth in the Sanitation District service area. The CEQA Guidelines, Section 15126.6(e)(3)(A) and (B), indicate that the No Project Alternative in certain cases can be considered as the continuation of previously approved planning policies.

Trunk Capacity Optimization Alternative

The Trunk Capacity Optimization Alternative involves the installation and operation of control structures and equipment at key diversions. The ability to control flows at key points would allow the Sanitation District to vary flow diversions between trunks for dry- and wet-weather operations. Flow control features could allow the Sanitation District to optimize existing trunk capacity and minimize or defer installation of new sewers.

ES 1.4 Areas of Known Controversy

Section 15123 of the CEQA Guidelines requires an EIR to include areas of known controversy. Following a review of the comments received on the Notice of Preparation (NOP), the service area annexations proposed in the NOP were determined to be considered controversial. As stated in Section 1.0 of this EIR, the proposed Plan no longer includes service area annexations as originally proposed in the NOP issued on October 2, 2006. Thus, no areas of known controversy exist that are related to the proposed Plan.

ES 1.5 Summary of Plan Impacts and Mitigation

Table ES-2 provides a summary of potentially significant impacts by resource area, identifies the mitigation measures to be implemented to reduce or avoid those impacts, and shows the level of significance after mitigation. For each potentially significant impact, at least one mitigation measure has been proposed to reduce the significance of the environmental impact. Even with implementation of the identified mitigation measures, construction-related nitrogen oxides (NO_x) emissions, noise associated with construction, and construction-related lane and road closures would result in significant and unavoidable construction-related air quality, noise, and transportation and traffic impacts, including significant and unavoidable construction-related air quality, noise, and transportation and traffic cumulative impacts. All other identified potentially significant impacts resulting from construction and operation of the proposed collection system improvement projects evaluated in the proposed Plan can be mitigated to a less-than-significant level. Detailed information regarding these potential impacts is included in Chapter 3 of this Draft PEIR.

TABLE ES-2
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Air Quality		
Impact 3.2-1: Construction activities would generate NO _x emissions in exceedance of the daily significance threshold resulting in a short-term impact to air quality.	Mitigation Measure 3.2-1a: Contractors will maintain equipment engines in proper tune and operate construction equipment so as to minimize exhaust emissions.	Significant Unavoidable
	Mitigation Measure 3.2-1b: During construction, trucks and vehicles in loading or unloading queues will keep engines off, when not in use, to reduce vehicle emissions.	Significant Unavoidable
Impact 3.2-2: Construction activities would produce fugitive dust emissions resulting in a short-term impact to air quality.	Mitigation Measure 3.2-2: Contractors will reduce fugitive dust emissions through implementation of the following dust control measures: <ul style="list-style-type: none"> • Cover all trucks hauling soil, sand, or other loose materials • Apply water as necessary on all unpaved access roads, parking areas, and staging areas at construction sites • Sweep all paved access roads, parking areas, and staging areas at construction sites with water sweepers • Water or apply nontoxic soil stabilizers to exposed soil stockpiles or areas disturbed by construction activities which produce dust • Limit traffic speeds on unpaved roads to 15 mph 	Less Than Significant
Biological Resources		
Impact 3.3-1: Areas of natural habitat within the footprint of proposed activities could impact special-status biological resources.	Mitigation Measure 3.3-1: Evaluation of impacts to special-status plants, birds, mammals, and amphibians and reptiles will occur at the project level. Specifically, all areas of natural habitat within the footprint of proposed construction activities with potential to support special-status biological resources will be surveyed according to standard protocol. Where special-status biological resources are identified within the project footprint, appropriate avoidance, minimization, and mitigation measures will be implemented. Depending on the special-status biological resources present, measures could include the following: Where rare plants are identified within the project footprint, the following avoidance, minimization, and mitigation measures will be implemented: <ul style="list-style-type: none"> • Project design will be evaluated to determine if an exclusionary zone can be established around rare plant populations; where feasible, this will be implemented, and construction activities will be relocated or modified to avoid impact. 	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.3-1: Areas of natural habitat within the footprint of proposed activities could impact special-status biological resources. (cont.)	<ul style="list-style-type: none"> • If rare plant populations cannot be avoided, appropriate salvage of plant propagules will be implemented, and suitable habitats for transplanting or re-establishing population will be identified and implemented. • Mitigation will include an analysis of suitability of alternative locations and identification of suitable propagation techniques. • Procurement of conservation easements will be implemented for alternative suitable habitats if the habitats are not already secured with conservation status. <p>Where special-status nesting birds are identified within the project footprint, the following avoidance, minimization, and mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • Project design will be evaluated to determine if a 500-foot minimum exclusionary zone can be established around active bird nests; where feasible, this will be implemented, and construction activities will be relocated or modified to avoid impact. • If nesting birds or active nest sites cannot be avoided, construction will be timed to avoid the active nesting season (February to August), and construction activities will not commence in the vicinity of nests until young have fledged. <p>Where special-status mammals or bat roosts are identified within the project footprint, the following avoidance, minimization, and mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • Project design will be evaluated to determine if a 500-foot minimum exclusionary zone can be established around active bat roosts; where feasible, this will be implemented, and construction activities will be relocated or modified to avoid impact. • Project design will be evaluated to determine if direct impacts to habitats supporting small mammals can be avoided with an exclusionary zone; where feasible, this will be implemented, and construction activities will be relocated or modified to avoid impact. • Where avoidance is not feasible, trapping or hazing of special-status mammals to remove them from the project site will be implemented, and individuals will be relocated to suitable habitat nearby; temporary fencing will be installed to prohibit species from returning to the construction zone. • If construction adjacent to bat roosts cannot be avoided, construction will be timed to avoid the parturition period (February to August), and construction activities will not commence in the vicinity of maternity roosts until young are weaned. • If construction must occur during the parturition period, then active bat roosts will be excluded prior to onset of breeding. 	Less Than Significant (cont.)

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.3-1: Areas of natural habitat within the footprint of proposed activities could impact special-status biological resources. (cont.)	<p>Where special-status amphibians and reptiles are identified within the project footprint, the following avoidance, minimization, and mitigation measures will be implemented:</p> <ul style="list-style-type: none"> • Project design will be evaluated to determine if direct impacts to habitats supporting amphibians or reptiles can be avoided with an exclusionary zone; where feasible, this will be implemented, and construction activities will be relocated or modified to avoid impact. • Where avoidance is not feasible, trapping or hazing of special-status amphibians or reptiles to remove them from the project site will be implemented, and individuals will be relocated to suitable habitat nearby; temporary fencing will be installed to prohibit species from returning to the construction zone. 	Less Than Significant (cont.)
Impact 3.3-2: Runoff from construction activities could impact aquatic fisheries.	<p>Mitigation Measure 3.3-2:</p> <p>To avoid impacts to aquatic fisheries, best management practices will be implemented to avoid contaminant runoff from construction practices. This will include the following:</p> <ul style="list-style-type: none"> • Equipment will not be operated in areas of ponded or flowing water. Stationary equipment such as motors, pumps, generators, and welders will be located a minimum of 200 feet outside aquatic and wetland habitats; construction staging areas, stockpiling, and equipment storage will be located a minimum of 200 feet outside aquatic and wetland habitats. • Construction vehicles and equipment will be checked periodically to ensure that proper working conditions with no potential for fugitive emissions of oil and other hazardous products exists. Refueling or lubrication of vehicles and cleaning of equipment, or other activities that involve open use of fuels, lubricants, or solvents, will occur in upland locations at least 200 feet away from aquatic or wetland habitats. • Temporary sediment-retention structures, hay bales, or silt fencing will be placed downstream of construction areas; sediment-retention devices will prevent sediment-laden water from draining offsite; sediment-retention devices structures will be maintained and repaired after flood events. 	Less Than Significant
Impact 3.3-3: Project activities within jurisdictional areas, including wetlands, would result in impacts to biological resources.	<p>Mitigation Measure 3.3-3:</p> <p>Direct impacts to jurisdictional areas including wetlands generally will be avoided by identifying these communities at the project analysis level and designing project components to avoid these areas. However, if impacts to jurisdictional wetlands cannot be avoided, then the following mitigation will be implemented:</p> <ul style="list-style-type: none"> • Delineation of affected jurisdictional sites will be implemented and impacts analyzed; this information will support permit applications to the U.S. Army Corps of Engineers (USACE) under Section 404 of the Clean Water Act. • A proposed mitigation plan to compensate for impacts to jurisdictional areas will be developed and approved by the USACE; it will be implemented to compensate for impacts. • To avoid indirect impacts to jurisdictional areas from contaminant runoff, Mitigation Measure 3.3-2 will be implemented. 	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Cultural Resources		
Impact 3.4-1: Project activities could affect known, significant archaeological, paleontological, and historical resources	<p>Mitigation Measure 3.4-1:</p> <p>During preliminary design a Registered Professional Archaeologist (RPA) will complete a literature review using the archives of the South Central Coastal Information Center of the California Historical Resources Information System (CHRIS), located at California State University Fullerton, and other sources as needed to identify previous cultural resources studies and previously recorded archaeological sites within close proximity to the project alignment. The literature search will also include a search of the Sacred Lands Database maintained by the California Native American Heritage Commission (NAHC).</p> <p>Using the results of the literature review in part, the archaeologist will develop a cultural resources sensitivity map for the project alignment, followed by a determination of specific areas of the project that may require preconstruction survey, subsurface testing, or construction monitoring. Cultural resources identified as a result of the literature review, field survey, testing, or construction monitoring will be evaluated by a Registered Professional Archaeologist to determine whether they meet the criteria for designation as a historical resource (14 CCR § 4850, PRC § 21084.1, 14 CCR § 15064.5(3)) or a “unique archeological resource” as defined in PRC § 21083.2. If resources are present on state lands, Office of Historic Preservation (OHP) will be consulted (PRC § 21083.2).</p> <p>For sites within project alignment where human remains have been previously documented, the Sanitation District would enter into a written agreement between an archaeological consultant, to be retained by the Sanitation District, and a Native American representative prior to construction in the vicinity of these sites. This agreement would specify terms as to the treatment and disposition of the human remains, and will define “associated burial goods” with reference to PRC § 5097.94, 5097.98, and 5097.99 and Health and Safety Code § 7050.5.</p>	Less Than Significant
Impact 3.4-2: Construction excavation could expose, encounter, or accidentally discover cultural resources, including buried human remains.	<p>Mitigation Measure 3.4-2a:</p> <p>Subsurface construction has the potential for exposing significant subsurface cultural resources. Due to the likelihood of encountering cultural resources, the Sanitation District will implement the following prior to commencement of construction activities:</p> <ul style="list-style-type: none"> • Prior to construction, contractors, and Sanitation District staff will receive an archaeological orientation from a professional archaeologist regarding the types of resources that could be uncovered during construction activities and the identification of these resources. The orientation also will cover procedures to follow in the case of any archaeological discovery. 	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.4-2: Construction excavation could expose, encounter, or accidentally discover cultural resources, including buried human remains. (cont.)	<p>Mitigation Measure 3.4-2b:</p> <p>If cultural resources are encountered at any time during project excavation, construction personnel will avoid altering these materials and their context until a qualified archaeologist has evaluated the situation. Project personnel will not collect or retain cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars and pestles, dark friable soil containing shell and bone, dietary debris, heat-affected rock, or human burials. Historic resources include stone or adobe foundations or walls; structures and remains with square nails, and refuse deposits (glass, metal, wood, ceramics) often found in old wells and privies.</p>	Less Than Significant
	<p>Mitigation Measure 3.4-2c:</p> <p>In the event accidental discovery or recognition of any human remains, the county coroner will be notified immediately, and construction activities will be halted. If the remains are found to be Native American, the Native American Heritage Commission will be notified within 24 hours. Guidelines of the Native American Heritage Commission will be adhered to in the treatment and disposition of the remains.</p>	Less Than Significant
Geology and Soils		
Impact 3.5-1: Project facilities would be located in areas susceptible to seismicity and groundshaking.	<p>Mitigation Measure 3.5-1:</p> <p>The Sanitation District will design and construct new facilities in accordance with Sanitation District standards and/or applicable building codes.</p>	Less Than Significant
Impact 3.5-2: Project facilities could be placed in areas with the potential for liquefaction.	<p>Mitigation Measure 3.5-2:</p> <p>Soil surveys will be conducted to determine the liquefaction potential along the collection system improvement routes. Pipelines will be installed within consolidated, engineered backfill.</p>	Less Than Significant
Impact 3.5-3: Project facilities could be placed in soils susceptible to settlement.	<p>Mitigation Measure 3.5-3:</p> <p>Areas of peat bogs will be consolidated before construction or peat material will be removed prior to construction. Pipelines will be installed within consolidated, engineered backfill.</p>	Less Than Significant

TABLE ES-2 (cont.)
 Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Hazards and Hazardous Materials		
Impact 3.6-1: Transportation of hazardous materials associated with Project activities could result in a hazards and hazardous materials related impact.	Mitigation Measure 3.6-1: Transportation of hazardous materials will be in accordance with all federal, state, and local regulations.	Less Than Significant
Impact 3.6-2: Storage of hazardous materials associated with Project activities could result in a hazards and hazardous materials related impact.	Mitigation Measure 3.6-2: Prior to storage of hazardous materials, a Hazardous Materials Inventory and Business Emergency Plan will be filed with the Orange County Fire Authority.	Less Than Significant
Impact 3.6-3: Accidental spill of hazardous materials associated with Project activities could result in a hazards and hazardous materials related impact.	Mitigation Measure 3.6-3: In the event of an accidental spill, containment and cleanup will occur in conformance with the spill response and waste disposal procedures identified in the Material Safety Data Sheets (MSDS) and in the Business Emergency Plan.	Less Than Significant
Impact 3.6-4: Improper disposal of hazardous materials could result in a hazards and hazardous materials related impact.	Mitigation Measure 3.6-4: Disposal of hazardous waste generated as part of construction or operation activities will occur at a properly permitted facility in accordance with federal and state laws.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.6-5: Improperly abandoned oil wells may exist within excavation alignments	<p>Mitigation Measure 3.6-5a:</p> <p>Prior to construction, the Sanitation District will identify existing and abandoned oil production wells within the project area using California Department of Conservation, California Department of Conservation, Division of Oil, Gas, and Geothermal Resources (DOGGR), District 1 well location maps. Access to identified non-abandoned oil wells will be maintained. Previously abandoned wells identified beneath proposed structures or utility corridors may need to be plugged to current DOGGR specifications including adequate gas venting systems.</p>	Less Than Significant
	<p>Mitigation Measure 3.6-5b:</p> <p>Should construction activities uncover previously unidentified oil production wells, the DOGGR will be notified, and the well will be abandoned following DOGGR specifications for well abandonment.</p>	Less Than Significant
Impact 3.6-6: Construction activities could encounter areas of contamination, including contamination associated with leaking underground storage tanks.	<p>Mitigation Measure 3.6-6:</p> <p>During project design, a database screening would be completed for listing of all known contamination sites, including contamination associated with leaking underground storage tanks. Additionally, soils sampling would be completed for the presence of total recoverable petroleum hydrocarbons (TRPH), volatile organics, and metals. In the event of suspected contamination from adjacent land uses, soil sampling would be completed to verify hazardous substances. Under the Sanitation District's standard construction specifications, the Sanitation District and its contractors would comply with all applicable regulatory requirements for the assessment, testing, remediation, removal, and disposal of hazardous wastes/materials.</p>	Less Than Significant
Hydrology and Water Quality		
Impact 3.7-1: Construction activities could result in erosion and siltation related stormwater impacts to surface water quality.	<p>Mitigation Measure 3.7-1:</p> <p>Prior to the initiation of ground-disturbing activities for sewer improvements with surface disturbances of 1 acre or more, the Sanitation District (or its designee) will obtain approval from the State Water Resources Control Board (State Board) under the National Pollutant Discharge Elimination System (NPDES) General Permit for Discharges of Storm Water Associated with Construction Activity (General Permit). This includes submitting a Notice of Intent (NOI) to the State Board and developing and implementing a Storm Water Pollution Prevention Plan (SWPPP). For sewer improvements with less than 1 acre of surface disturbances, the Sanitation District (or its designee) will develop and implement a Stormwater Pollution Control Plan (SWPCP) prior to initiating ground-disturbing activities. The SWPPP or SWPCP will identify potential sources of sediment and other pollutants that could affect the quality of the stormwater discharge, and will specify best management practices (BMPs) to prevent or minimize the introduction of sediment and pollutants into surface waters from a construction site. BMP methods of erosion and sediment control might include straw bales, silt fences, and other control techniques. Monitoring and maintenance requirements will be specified in the SWPPP or SWPCP.</p>	Less Than Significant

TABLE ES-2 (cont.)

Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.7-2: Project activities within jurisdictional areas, including wetlands, would result in impacts to biological resources. Construction activities could also result in impacts to jurisdictional areas associated with equipment refueling and vehicle use.	Mitigation Measure 3.7-2: Prior to initiating activities within Waters of the United States, including jurisdictional wetlands, the Sanitation District (or its designee) will obtain the approved 401 Water Quality Certification from the Regional Water Quality Control Board (Regional Board), the 1600 Streambed Alteration Agreement from California Department of Fish and Game (CDFG), and the 404 Permit from the USACE. Vehicle maintenance and fueling will be restricted from areas within 50 feet of the bank of a jurisdictional area. Following construction within a jurisdictional area, the affected area will be returned to preconstruction grade.	Less Than Significant
Impact 3.7-3: Construction dewatering discharges could result in impacts to surface water quality.	Mitigation Measure 3.7-3: Prior to the initiation of construction dewatering activities the Sanitation District (or its designee) will obtain authorization from the Santa Ana Regional Water Quality Control Board and will comply with the NPDES Permit No. CAG998001, General Waste Discharge Requirements for Discharges to Surface Waters that Pose an Insignificant (De Minimus) Threat to Water Quality, for insignificant discharges to surface water bodies, including but not limited to discharge of dewatered groundwater.	Less Than Significant
Land Use and Planning		
Impact 3.8-1: Construction activities could impact adjacent property owners, including businesses and places of worship.	Mitigation Measure 3.8-1: The Sanitation District will provide notices of construction to adjacent property owners, including businesses and places of worship, prior to initiating construction activities. Notices of construction will include a contact and telephone number of Sanitation District staff that can be contacted regarding questions or concerns about construction activities.	Less Than Significant
Impact 3.8-2: Construction activities could affect 24-hour emergency access at adjacent fire stations, police stations, and hospitals.	Mitigation Measure 3.8-2: The Sanitation District will coordinate with officials of adjacent fire stations, police stations, and hospitals to ensure that 24-hour emergency access is available.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.8-3: Construction activities could result in disruption of access to adjacent land uses including schools.	Mitigation Measure 3.8-3: To minimize disruption of access to driveways of adjacent land uses including schools during construction, the Sanitation District (or its contractor) will maintain steel trench plates to provide vehicle access across trenches.	Less Than Significant
Impact 3.8-4: Construction activities could result in disruption to adjacent businesses.	Mitigation Measure 3.8-4: To minimize disruption to adjacent businesses during construction, the Sanitation District will provide temporary signage indicating that businesses are open.	Less Than Significant
Noise		
Impact 3.9-1: Construction activities could result in short-term noise disruptions to surrounding areas.	Mitigation Measure 3.9-1: To minimize noise disruption during construction, construction activities will generally be scheduled to occur during times allowed by applicable codes, noise ordinances or permits. Additionally, the following mitigations could be implemented as required: <ul style="list-style-type: none"> • Noise reduction measures such as sound blankets or temporary sound walls could be used to reduce noise generation from stationary noise generating equipment during construction. • Stationary noise generating equipment such as generators could be placed within the jacking pits where possible to reduce noise during construction. • Pile driving activities or other particularly disruptive construction could be limited to specific times agreed to with agencies of jurisdiction or adjacent property owners prior to construction. • Where appropriate, noise monitoring at the closest sensitive receptors could be conducted and reports submitted to the city of jurisdiction. 	Significant Unavoidable
Impact 3.9-2: Construction activities could expose persons to, or generate, groundborne vibration.	Mitigation Measure 3.9-2: Project level review will be completed and will identify specific areas susceptible to groundborne vibration. For such identified areas, construction notification would occur and construction activities would be limited to times allowed by applicable codes, noise ordinances or permits.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Public Services		
Impact 3.11-1: Traffic impacts associated with construction activities could impact police departments, fire departments, local service providers, and schools.	Mitigation Measure 3.11-1: The contractor will provide a copy of the Traffic Control Plan to the Sheriff's Department, local police departments, and fire departments prior to construction. The Sanitation District will provide 72-hour notice of construction to the local service providers of individual pipeline segments.	Less Than Significant
Impact 3.11-2: Construction activities could impact access to fire stations and emergency medical facilities.	Mitigation Measure 3.11-2: Access to fire stations and emergency medical facilities will be maintained on a 24-hour basis, and at least one access to medical facilities will be available at all times during construction. The Sanitation District will notify appropriate officials at the medical facility regarding construction schedule.	Less Than Significant
Impact 3.11-3: Open trenches associated with construction activities could result in a safety impact.	Mitigation Measure 3.11-3a: Construction areas will be secured or trenches will be backfilled promptly after pipeline installation. If installation is incomplete, steel trench plates will be used to cover open trenches as appropriate for the specific site.	Less Than Significant
	Mitigation Measure 3.11-3b: Construction contractors will ensure that adequate barriers are established to prevent pedestrians from entering the open trenches of an active construction area. Warnings will be posted sufficient distances from the work area to allow pedestrians to cross the street at controlled intersections.	Less Than Significant
	Mitigation Measure 3.11-c: To ensure aesthetic consistency and public safety, construction contractors will restore disturbed areas along the alignment as mutually agreed by the Sanitation District and local jurisdictions prior to construction.	Less Than Significant
Impact 3.11-4. During construction activities impacts associated with the vandalism of equipment at staging and storage areas could occur.	Mitigation Measure 3.11-4: Construction contractors will be responsible for providing appropriate security measures for all equipment staging and/or storage areas needed for sewer improvement projects.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.11-5: Improper disposal of construction refuse would impact public services.	Mitigation Measure 3.11-5a: Construction contractors will dispose of construction refuse at approved disposal locations. Contractors will not be permitted to dispose of construction debris in residential or business containers.	Less Than Significant
	Mitigation Measure 3.11-5b: Construction contractors will be required to keep construction and staging areas orderly, free of trash and debris.	Less Than Significant
Impact 3.11-6: Project activities could result in impacts associated with disruptions to existing utilities.	Mitigation Measure 3.11-6a: A detailed study identifying utilities along the pipeline routes will be conducted during the design stages of sewer improvement projects. For segments with potential adverse impacts, the following mitigations will be implemented. <ul style="list-style-type: none"> • Utility excavation or encroachment permits will be required from the appropriate agencies. These permits include measures to minimize utility disruption. The Sanitation District and its contractors will comply with permit conditions, and such conditions will be included in construction contract specifications. • Utility locations will be verified through field surveys. • Detailed specifications will be prepared as part of the design plans to include procedures for the excavation, support, and fill of areas around utility cables and pipes. All affected utility services will be notified of Sanitation District construction plans and schedule. Arrangements will be made with these entities regarding protection, relocation, or temporary disconnection of services. 	Less Than Significant
	Mitigation Measure 3.11-6b: To reduce potential impacts associated with utility conflicts, the following measures will be implemented in conjunction with 3.11-6a. <ul style="list-style-type: none"> • Disconnected cables and lines will be promptly reconnected. • The Sanitation District will observe Department of Health and Safety (DHS) standards, which require a 10-foot horizontal separation between parallel sewer and water mains and 1-foot vertical separation between perpendicular water and sewer line crossings. In the event that the separation requirements cannot be maintained, the Sanitation District will obtain DHS variance through provisions of water encasement, or other means deemed suitable by DHS, and by encasing water mains in protective sleeves where a new sewer force main crosses under or over an existing sewer main. 	Less Than Significant
	Mitigation Measure 3.11-6c: The construction contractor will comply with Sanitation District requirements and specifications to protect existing utility lines.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.11-7: Projects could affect the compatibility of existing and future projects.	Mitigation Measure 3.11-7: The Sanitation District shall coordinate with the Orange County Resources and Development Management Department (RDMD) and other jurisdictions as required to ensure compatibility and joint-use feasibility with existing and future projects.	Less Than Significant
Transportation and Traffic		
Impact 3.12-1: Construction activities will occur within city streets and would impact traffic.	Mitigation Measure 3.12-1a: Traffic control plans will be prepared by a qualified professional engineer as required prior to the construction phase of each sewer line project.	Less Than Significant
	Mitigation Measure 3.12-1b: Traffic control plans will consider the ability of alternative routes to carry additional traffic and will identify the least disruptive hours of construction, site truck access routes, and the type and location of warning signs, lights, and other traffic control devices. Consideration will be given to maintaining access to commercial parking lots, private driveways, sidewalks, bikeways, and equestrian trails to the greatest extent feasible.	Less Than Significant
	Mitigation Measure 3.12-1c: Encroachment permits for all work within public rights-of-way will be obtained from each appropriate agency prior to commencement of any construction. Agencies could include California Department of Transportation (Caltrans), RDMD and the various city agencies where work will occur. The Sanitation District will comply with traffic control requirements, as identified by Caltrans and the affected local jurisdictions.	Less Than Significant
	Mitigation Measure 3.12-1d: Traffic control plans will comply with the Work Area Traffic Control Handbook and/or the Manual on Uniform Traffic Control Devices, as determined by each affected local agency, to minimize any traffic and pedestrian hazards that exist during project construction.	Less Than Significant
	Mitigation Measure 3.12-1e: Public roadways will be restored to their existing condition after project construction is completed.	Less Than Significant
	Mitigation Measure 3.12-1f: The Sanitation District will attempt to schedule construction of relief facilities to occur jointly with other public works projects already planned in the affected locations, through careful coordination with all local agencies involved.	Less Than Significant

TABLE ES-2 (cont.)
Summary of Project Impacts and Mitigation Measures

Potentially Significant Impact	Mitigation Measure	Level of Significance After Mitigation
Impact 3.12-1: Construction activities will occur within city streets and would impact traffic. (cont.)	<p>Mitigation Measure 3.12-1g: Emergency service purveyors will be contacted and consulted to preclude the creation of unnecessary traffic bottlenecks that will seriously impede response times. Additionally, measures to provide an adequate level of access to private properties will be maintained to allow delivery of emergency services.</p>	Less Than Significant
	<p>Mitigation Measure 3.12-1h: Orange County Transportation Authority will be contacted when construction affects roadways that are part of the OCTA bus transit network. Adequate procedures will be implemented to keep bus routes and station accessible to users.</p>	Less Than Significant
	<p>Mitigation Measure 3.12-1i: Construction traffic, mainly trucks, will be routed in a way to minimize impacts to sensitive neighborhoods. In addition, storage and staging of materials and equipment will be done after obtaining a Temporary Use Permit, when needed.</p>	Less Than Significant
	<p>Mitigation Measure 3.12-1j: An effort will be made to solicit input from residents in the neighborhoods of the proposed improvements. These inputs will be considered in the planning phase through construction to mitigate the resident's concerns.</p>	Less Than Significant
	<p>Mitigation Measure 3.12-1k: For sewer improvements that occur within railroad rights-of-way, the Sanitation District will follow the Southern California Regional Rail Authority (SCRRA) procedures for right-of-way encroachment – SCRRA Form No. 36. The procedures for temporary encroachment calls for: (1) the submittal of a written statement of the reason and location of the encroachment; (2) a completed and executed SCRRA Form No. 6, Right-of-Entry Agreement; (3) plan check, inspection, and flagging fees; and (4) insurance certificates, as described in the Right-of-Entry Agreement. Per SCRRA Form No. 6, the Sanitation District must comply with the rules and regulations of this agreement at all times when working on SCRRA property, including those outlines in the “Rules and Requirements for Construction at Railway Property, SCRRA Form No. 37” and “General Safety Regulations for Construction/Maintenance Activity on Railway Property.”</p>	Less Than Significant