

Draft

NEWPORT TRUNK SEWER AND FORCE MAINS REPLACEMENT PROJECT

*Environmental Impact Report
SCH#: 2003051126*

November 2004

*Prepared for
Orange County Sanitation District*

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EXECUTIVE SUMMARY

S.1 INTRODUCTION

The Orange County Sanitation District (District) is proposing to implement the Newport Trunk Sewer and Force Main Replacement Project (OCSD Contract No. 5-58). The proposed project would replace the existing Newport Trunk Sewer and force mains with a new force main system from the Bitter Point Pump Station, located at the entrance of the West Newport Oilfield on Pacific Coast Highway (PCH) in the city of Newport Beach, to the District's Treatment Plant No. 2 located in the city of Huntington Beach. This Environmental Impact Report (EIR) has been prepared to evaluate the environmental effects that may result from the proposed project pursuant to the requirements of the California Environmental Quality Act (CEQA) and the CEQA Guidelines¹. Because the District will be constructing the project, the District is the "Lead Agency" for purposes of CEQA.

In 1999, the District certified the final Program Environmental Impact Report (PEIR) for the District's 20-year Strategic Plan². The PEIR evaluated the environmental effects of three categories of collection system improvement projects, including pipeline replacements, rehabilitation of pipelines and manholes, and pump station improvements. Following certification of the 1999 PEIR, the District determined that the Strategic Plan's projected wastewater flows for the Newport Trunk Sewer would exceed the capacity of the existing trunk line segment between the Bitter Point Pump Station and Treatment Plant No. 2. Therefore, the District must increase the capacity of the final segment of the Newport Trunk Sewer to accommodate the flows projected in the Strategic Plan. In addition, this segment has experienced several failures in recent years resulting in sewage spills due to corrosion of the force mains.

Since the project is similar to the types of project described in the collection system improvement program described in the 1999 Strategic Plan, some of the analysis, conclusions, and mitigation measures identified in the 1999 PEIR would also be relevant to the proposed project. As such, this District intends to "tier" off the 1999 PEIR pursuant to Section 15152 of the CEQA Guidelines. Section 15152 subsection (a) provides:

"Tiering" refers to using the analysis of general matters contained in a broader EIR (such as one prepared for a general plan or policy statement) with later EIRs and negative

¹ Public Resources Code § 21000 et seq.; Title 14, California Code of Regulations § 15000 et seq.

² A copy of the PEIR is available for public review at the District offices: 10844 Ellis Ave., Fountain Valley.

declarations on narrower projects; incorporating by reference the general discussions from the broader EIR; and concentrating the later EIR or negative declaration solely on the issues specific to the later project.”

This EIR focuses on the proposed project’s site-specific environmental impacts. Where appropriate, the EIR incorporates by reference relevant analyses contained in the PEIR, including mitigation measures that would reduce the proposed project’s potentially significant impacts. The EIR also recommends new mitigation measures, where appropriate, to lessen the proposed project’s potentially significant, site specific, environmental impacts.

This EIR provides objective information to guide and assist decision-makers and the public in their evaluation of the potential environmental effects that may result from the implementation of the project as proposed. Comments regarding the project should be directed to:

Jim Herberg, Engineering Manager
c/o Angie Anderson
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

S.2 PROJECT BACKGROUND

The District provides wastewater services for more than 2.3 million residents of 23 cities within a 450-square mile portion of northern and central Orange County. The District operates and maintains over 650 miles of trunk and subtrunk sewer lines within its service area, which encompasses slightly more than half of the land area of Orange County and serves more than 87 percent of the county’s population. Two treatment plants are situated along the Santa Ana River (SAR). Reclamation Plant No. 1 is located in Fountain Valley, and Treatment Plant No. 2 is located in the City of Huntington Beach near the coast. Treated effluent is discharged through a 120-inch diameter ocean outfall that extends approximately four miles into the ocean.

Wastewater from the City of Newport Beach and surrounding areas is conveyed to Treatment Plant No. 2 through a network of gravity sewers, pump stations, force mains, and the District’s Newport Trunk Sewer. The Bitter Point Pump Station is the last of four principal pump stations in Newport Beach that operate in parallel to one another. The Bitter Point Pump Station pumps the combined wastewater through a common network of force mains to the treatment plant.

In 1999, the District prepared a Strategic Plan to identify projects and programs needed to accommodate projected population growth in its service area through 2020. The 1999 PEIR assessed the potential effects of the Strategic Plan on the local and regional environment,

providing program-level analysis of long-term planning strategies as well as project-level analysis for projects planned to occur in the near-term (up to the year 2005). The Strategic Plan did not identify the Newport Trunk Sewer and Force Main Replacement Project.

S.3 PROJECT DESCRIPTION

The project consists of the replacement of the Newport Trunk Sewer and force mains from Treatment Plant No.2 to the Bitter Point Pump Station, which is located off PCH at the western end of the city of Newport Beach. The District has developed two basic alternative routes for replacing the final segment of the Newport Trunk Sewer and Force Main. Alternative 1 would generally follow PCH to Brookhurst Street while Alternative 2 would traverse the West Newport Oilfield (Armstrong Petroleum) and the panhandle portion of the Santa Ana River (SAR) Salt Marsh, located between Santa Ana River and Banning Ranch. Seven alternative alignments have been developed for the alternatives; four alignment options have been developed for Alternative 1 and three alignment options have been developed for Alternative 2. The project would also include the construction of two force mains crossing beneath the SAR and possibly the Talbert Marsh outlet channel depending on which alignment is implemented. Alternative 2 would also include the construction force mains to connect to Treatment Plant No. 2 connecting the Newport Trunk with the Coast Trunk. The existing 8- and 10-inch West Newport Oil Company waste pipelines would be reconnected to discharge to a newly constructed twelve-inch force main that would tie into the Bitter Point Pump Station. The existing Newport Trunk force mains, gravity sewer, and siphon would be abandoned in place and filled with cement slurry.

Open trench construction would be used to install portions of the pipeline along PCH or through the West Newport Oilfield and SAR Marsh. Micro-tunneling or horizontal directional drilling would be used to install the sections beneath the SAR, Talbert Marsh outlet channel, and also some portions of the Santa Ana River Salt Marsh. All construction will take place within the existing easement, which lies along the service road and is already in a disturbed area. Construction activity will take approximately eleven months to complete.

S.4 PROJECT ALTERNATIVES

The District evaluated two Alternatives for a total of seven alignment options for replacement of the Newport Trunk Sewer and force mains in the general proximity of the PCH and Treatment Plant No. 2. The District conducted a site screening analysis for each of these sites. All of the sites were found to be technically feasible, although some were technically more difficult to construct and cost prohibitive. Based on the technical and environmental analysis, the District's preferred alternative is Alternative 2C.

S.5 AREAS OF CONTROVERSY

During the scoping sessions held for the project, concerns were raised regarding the potential adverse impacts to local businesses on PCH during construction. Several business owners expressed concerns that their businesses would suffer substantially from the construction on PCH. Other comments were received regarding the potential affects to biological resources in the SAR Marsh area. Additional comments were received expressing concern that the sewer connection to the oil field could be used to accommodate future development at the oil field.

S.6 ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

CEQA Guidelines require that an EIR contain a brief summary of project impacts and mitigation measures that would reduce those impacts. **Table S-1** provides a comparison of the potential effects of each alternative as evaluated in this EIR. The table shows that Alternative 2C and Alternative 1D would result in the fewest major effects. Alternative 2C is the preferred alternative. An alternative screening process was conducted and is summarized in Section 4.

TABLE S-1: COMPARISON OF CONSTRUCTION AND OPERATIONAL EFFECTS FOR EACH ALTERNATIVE

Potential Impact	No Project Alternative	Alternative 1A	Alternative 1B	Alternative 1C	Alternative 1D	Alternative 2A	Alternative 2B	Alternative 2C
Operational Effects								
Destruction of biological resources	Yes	No	No	No	No	No	No	No
Potential degradation of surface water quality	Yes	No	No	No	No	No	No	No
Potential odor emissions	Yes	No	No	No	No	No	No	No
Construction Effects								
Destruction of biological resources	No	No	No	Yes	No	No	Yes	No
Lane closure during construction	No	Yes	Yes	Yes	No	No	No	No
Disruption of access to residences	No	Yes	Yes	Yes	No	No	No	No
Obstruction of beach parking	No	No	Yes	No	Yes	No	No	No
Obstruction of bike paths	No	Yes	Yes	Yes	No	No	No	No
Abandoned oil wells constraints	No	No	Yes	No	No	Yes	Yes	No
Potential odor emissions	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table S-2 contains a summary of the environmental impacts and level of significance before mitigation measures have been implemented, mitigation measures identified to reduce or avoid those impacts, and a determination of the level of significance after mitigation measures have been implemented. Only air quality impacts during construction of the proposed project would remain significant after implementation of identified mitigation measures.

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION	
		1A	1B	1C	1D	2A	2B	2C		
AIR QUALITY										
<p>Impact 3.1-1: Construction of the proposed project would emit criteria pollutants. Estimated daily average construction emissions would be less than significance thresholds set by the SCAQMD.</p>	<p>Measure 7.5-1a: Dust Control. The District shall require the contractors to implement a dust abatement program that would reduce fugitive dust generation to lessen impacts to nearby sensitive receptors. The dust abatement program could include the following measures:</p> <ul style="list-style-type: none"> • Water all active construction sites at least twice daily. • Cover all trucks having soil, sand, or other loose material or require all trucks to maintain at least two feet of freeboard. • Apply water as necessary, or apply non-toxic soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers) all paved access roads, parking areas and staging areas at construction sites. • Sweep daily (with water sweepers) if visible soil material is carried into adjacent streets. • Water twice daily or apply non-toxic soil binders to exposed soil stockpiles. • Limit traffic speeds on unpaved roads to 15 mph. 	X	X	X	X	X	X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	<p>Measure 7.5-1b: Exhaust Emissions. Contractors shall maintain equipment engines in proper working order and operate construction equipment so as to minimize exhaust emissions. Such equipment shall not be operated during first or second stage smog alerts.</p> <p>Measure 7.5-1c: Truck Emissions Reductions. During construction, trucks and vehicles in loading or unloading queues shall be kept with their engines off, when not in use, to reduce vehicle emissions. Construction activities shall be discontinued during second-stage smog alerts.</p>								
Impact 3.1-2: The proposed project could release objectionable odors during construction.	<p>M-3.1-1: Excavated soils that emit objectionable odors will be covered with plastic sheeting while stockpiled and will be removed from the construction areas within three days of excavation. If odors emanating from the open trenches create nuisance conditions, they will be covered with plastic sheeting during non-working hours.</p> <p>M-3.1-2: The contractor shall conduct odor monitoring during excavation and drilling activities. Results of the odor monitoring shall be recorded and reported regularly.</p> <p>M-3.1-3: During the sewer connection period, the District shall increase odor control chemical applications upstream of the Bitter Point Pump Station as necessary to minimize odor generation from the connection points.</p>	X	X	X	X	X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
Impact 3.1-3: Operational emissions associated with the proposed project would be similar to existing conditions.	None Required.								Less than significant.
BIOLOGICAL RESOURCES									
Impact 3.2-1: Construction of the Alternative 2 alignments could result in the temporary filling of jurisdictional wetland within the SAR Marsh. Similarly, Alternative 1C could result in temporary filling of jurisdictional wetland within the Talbert Marsh.	<p>M-3.2-1a: Prior to construction, a qualified biologist will mark the allowed construction area within the service road easement. The allowed construction area will exclude areas with existing marsh vegetation. The markers will be located within visible distance of each other, no more than 100 feet apart on either side of the 30-foot easement. No vegetation shall be removed during construction work within the marked area of the service road alignment. No construction debris, supplies or soils will be placed outside of the marked area.</p> <p>M-3.2-1b: A qualified biologist will be present during construction activities within the SAR Marsh or Talbert Marsh sufficient to ensure that no construction activities occur outside of the marked construction area.</p> <p>M-3.2-1c: Trenches and jack and bore pits shall be located on the previously disturbed easement areas with no marsh habitat value. Trenching and construction of the pits shall not destroy vegetation or place any fill onto wetland areas. If this is not possible, then Mitigation Measure M-3.2-1d would apply.</p>			X		X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	M-3.2-1d: If construction activities remove jurisdictional wetlands, they shall be replaced by permanent wetlands under permit conditions established by the USACE, CDFG, and USFWS.								
Impact 3.2-2: Project construction could affect the habitat, or result in incidental take of, the Belding savannah sparrow (nesting and foraging) and California least tern (foraging). This would be a less than significant impact under Alternatives 1A, 1B, 1C, and 1D, and a significant impact for Alternatives 2A, 2B and 2C.	<p>M-3.2-2a: The District shall retain a qualified biologist to provide an educational session to all contractors and construction workers on the least tern and Belding savannah sparrow.</p> <p>M-3.2-2b: Limit construction near the least tern nesting area and within the SAR Marsh to non-nesting periods for the Belding's savannah sparrow and the least tern.</p>	X	X	X	X	X	X	X	Less than Significant
Impact 3.2-3: Construction activities associated with Alternatives 1C, 2A, 2B, and 2C could adversely affect non-listed nesting birds protected by the federal Migratory Bird Treaty Act.	See Mitigation Measure M-3.2-2b			X		X	X	X	Less than Significant
Impact 3.2-4: Routine maintenance and access requirements for Alternatives 2A, 2B, and 2C would potentially affect sensitive habitat and wildlife within the SAR Marsh.	<p>M-3.2-4: The District shall prepare a maintenance procedures manual for activities within the SAR Marsh. The manual will include the following restrictions at a minimum:</p> <ul style="list-style-type: none"> • District personnel shall not enter or place materials outside of the utility easement. • No vegetation clearing outside of the easement is allowed. • The speed limit on the SAR Marsh service road is limited to 15 miles per hour. 					X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	<ul style="list-style-type: none"> Public access onto the easement from the SAR levee shall be restricted. 								
CULTURAL RESOURCES									
<p>Impact 3.3-1: Ground-disturbing activities associated with construction of the proposed project could reveal previously unknown buried or otherwise obscured significant prehistoric and historic cultural resources.</p>	<p>Measure 7.10-2a: Archaeological Resources. Subsurface construction has a low to very high potential for exposing significant subsurface cultural resources. Due to the likelihood of encountering cultural resources, the District shall implement the following prior to project construction:</p> <p>Language shall be included in the General Specifications section of any subsurface construction contracts alerting the contractor to the potential for subsurface cultural resources and trespassing on known or potential resources adjacent to the project.</p> <p>Measure 7.10-2b: Cultural Resources. If cultural resources are encountered at any time during project excavation, construction personnel would avoid altering these materials and their context until a qualified archaeologist has evaluated the situation. Project personnel would not collect or retain cultural resources. Prehistoric resources include, but are not limited to, chert or obsidian flakes, projectile points, mortars, and pestles; and 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,</p>	X	X	X	X	X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	wood, ceramics), often found in old wells and privies. Measure 7.10-2c: Human Remains Alert. In the event of accidental discovery or recognition of any human remains, the County Coroner would be notified immediately and construction activities shall be halted. If the remains are found to be Native American, the NAHC would be notified within 24 hours. Guidelines of the NAHC shall be adhered to in the treatment and disposition of the remains.								
Impact 3.3-2: The proposed project may damage or degrade previously unidentified paleontological remains.	M-3.3-1: In the event of an unanticipated discovery of vertebrate fossils during construction, the District shall instruct its contractors to halt construction activity within fifty 50 feet of the find and immediately notify the District about the find. The District shall then retain a qualified paleontologist, who must assess the find and develop a mitigation plan that ensures that the resources are removed from the site or otherwise protected on site. The District shall not resume construction activity within fifty (50) of the find until the find is removed or otherwise protected in accordance with the paleontologist's recommendation.	X	X	X	X	X	X	X	Less than Significant
GEOLOGY AND SOILS									
Impact 3.4-1: The proposed project could expose structures to potential adverse effects due to rupture of a known earthquake fault, strong ground shaking, and ground failure,	M-3.4-1: OCSD shall follow the recommendations of the Geotechnical Report (Ninyo & Moore, June	X	X	X	X				Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	
including liquefaction and landslides due to seismic activity.	<p>2003, July 2003 and September 2003). These recommendations include the following:</p> <ul style="list-style-type: none"> • Coring and special drilling methods shall be needed through the sheet piling under the Talbert Channel. • Existing concrete and/or steel pile foundations to elevations of -14 to -60 feet mean sea level (MSL) and spread footings including seal course concrete to an elevation of -17 feet MSL under the existing bridge structures will be considered in the planned alignment and elevations of the force mains. Prior to design, we recommend that the existing and abandoned foundations and utilities with invert elevations will be surveyed along the alignment. • Rip-rap from the old channels under the SAR are reportedly present to an elevation of approximately -20 feet MSL and will need special handling if within the alignment of the force mains. • The underlying soils are generally loose to dense sand with some gravel and shell fragments to elevations of approximately -48 to -55 feet MSL and are typically suitable for drilling. Gravel and cobbles to an elevation of approximately -20 feet 							

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION	
		1A	1B	1C	1D	2A	2B		2C
	<p>MSL along the center of the river will likely impact the drilling operations.</p> <ul style="list-style-type: none"> Groundwater is relatively shallow and dewatering will likely be needed for the jacking pits. 								
	<ul style="list-style-type: none"> Rip-rap for the SAR is reportedly present to an elevation of approximately -17 feet MSL and will be considered in the planned elevation of the proposed horizontal drilling and/or microtunneling. The underlying soils are generally loose to dense sands with some gravel and shell fragments to elevations explored of approximately -30 to -45 feet MSL in the area of the river and are typically suitable for drilling. Soft ground conditions are expected in the low-lying areas of the marshes and may not support equipment loads. Ground modification and/or imported fill for access roads through the low lying areas may be appropriate. Groundwater is relatively shallow and dewatering will likely be needed for the jacking pits and/or trenches. Ground improvement may be appropriate to adequately dewater the site during excavation work for entry shafts and/or open trenches. 					X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	<ul style="list-style-type: none"> In light of the relatively wide area of faulting in the vicinity of the site, there is potential for fault rupture hazard within the alignment area. The actual locations of active fault traces within the alignment area, however, are unknown. Horizontal and vertical ground displacement of up to approximately one meter will be considered in the design of the pipeline. 								
	<ul style="list-style-type: none"> Since this alignment crosses the SAR from a different location along the east side of the channel, the locations and depths of existing structures located in this area will be carefully evaluated for the project design. The existing structures include the presence of the existing rip-rap, a tidal gate, and a 42-inch-diameter siphon. 							X	Less than Significant
	<ul style="list-style-type: none"> Structures for the proposed project will be designed to withstand the expected ground motion (0.41g) and comply with the requirements of applicable jurisdictions and building codes, and will be in general accordance with standard practices of the Structural Engineers Association of California. Detailed estimates of the dynamic settlement will be prepared. 	X	X	X	X	X	X	X	Less than Significant
	Measure 7.6-1a: Seismic Safety. The District will design and construct new facilities in	X	X	X	X	X	X	X	Less than Significant

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RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	accordance with District seismic standards and/or meet or exceed seismic, design standards in the most recent edition of the California Building Code.								
Impact 3.4-2: The project could be located on soil that is unstable and potentially result in on or off-site landslide, lateral spreading, subsidence, or collapse. In addition, it is possible that expansive soils could be encountered.	<p>M-3.4-2: OCSD shall follow the recommendations of the Geotechnical Report (Ninyo & Moore, June 2003, July 2003 and September 2003). These recommendations include the following:</p> <ul style="list-style-type: none"> • The contractor will be familiar with applicable local, state, and federal safety regulations regarding excavations, including OSHA excavation and trench safety standards. • Stockpiles will be kept away from the top of excavations and slopes unless the shoring has been designed adequately to allow for the additional loads. • Since soil conditions may vary from those anticipated, soil conditions will be observed during excavation • Actual design parameters will be based on a detailed subsurface evaluation at the proposed jacking pit locations. • Laboratory testing of the soils will be conducted to evaluate the corrosion potential at the time of the detailed geotechnical evaluation. Measures will 	X	X	X	X	X	X	X	Less than Significant

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RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	be implemented to protect pipeline from corrosion.								
Impact 3.4-3: Subsurface drilling could encounter or damage bridge or channel foundations.	None Required.								Less than Significant
HAZARDS AND HAZARDOUS MATERIALS									
Impact 3.5-1: Soils and groundwater containing hazardous substances could be encountered during construction and could result in worker and public health hazards or could affect the environment.	M-3.5-1: Any contaminated soils encountered on the project site during excavation activities shall be removed from the project site and disposed of off-site in accordance with applicable hazardous waste regulations. The District will notify the Orange County Health Care Agency – local Certified Unified Program Agency (CUPA) of remedial actions.	X	X	X	X	X	X	X	Less than Significant
Impact 3.5-2: Improperly abandoned oil wells may exist within the excavation alignments.	Measure 7.8-3e: Identify Abandoned Oil Wells. Prior to construction, the District shall identify existing and abandoned oil production wells within the project area using the 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. Measure 7.8-3f: Abandon Wells. Should construction activities uncover previously unidentified oil production wells, the DOGGR will			X		X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	be notified, and the well will be abandoned following DOGGR specifications for well abandonment.								
Impact 3.5-3: Tunneling activities may encounter hazardous underground gases.	M-3.5-2: Prior to tunneling activities, the District shall prepare a Construction Site Plan for tunneling activities. The District shall submit the Site Plan to the California Division of Oil, Gas, and Geothermal Resources for review and approval. The Site Plan shall include at a minimum the requirement to conduct continuous monitoring for H ₂ S, methane, and volatile organics.	X	X	X	X	X	X	X	Less than Significant
<u>HYDROLOGY</u>									
Impact 3.6-1: Construction activities could result in discharge of pollutants and could generate polluted storm water runoff that could affect surface water quality.	M-3.6-1: The District shall ensure that drilling depths are adequate to avoid seepage of drilling fluids into surface waters. Typically this requires a cover of six feet.	X	X	X	X	X	X	X	Less than Significant
	Measure 7.7-1a: Contractor BMPs. Construction contractors will implement Best Management Practices to prevent erosion and sedimentation to avoid significant adverse impacts to surface water quality. Measure 7.7-1c: County of Orange Coordination. The District shall coordinate with the Orange County Public Facilities and Resources Department (Orange County Flood Control District) Planning Section to ensure compatibility and joint use feasibility with existing and future projects.	X	X	X	X	X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	
	<p>Measure 7.7-1d: Waterway Protection. The District shall incorporate into contract specifications the requirement that the contractor(s) enforce strict on-site handling rules to keep construction and maintenance materials out of receiving waters. The rules will include measures to:</p> <ul style="list-style-type: none"> • Store all reserve fuel supplies only within the confines of a designated construction staging area. • Refuel equipment only within designated construction staging area. • Regularly inspect all construction vehicles for leaks. <p>Measure 7.7-1e: Spill Prevention. The District shall incorporate into contract specifications the requirement that the contractor(s) prepare a Spill Prevention, Control, and Countermeasure Plan. The plan would include measures to be taken in the event of an accidental spill.</p> <p>Measure 7.7-1f: Spill Containment. The District shall incorporate into contract specifications the requirement that the construction staging areas be designed to contain contaminants such as oil, grease, and fuel products so that they do not drain towards receiving waters or storm drain inlets. If heavy-duty construction equipment is stored overnight, drip pans will be placed</p>							

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
	beneath the machinery engine block and hydraulic systems.								
Impact 3.6-2: The construction of the proposed project could result in discharge of dewatered groundwater.	None required.								Less than Significant
Impact 3.6-3: The proposed project could place structures within a 100-year flood plain and expose people or structures to significant risk of loss, injury or death involving flooding, including inundation by seiche, tsunami, mudflow, or failure of a dam or levee.	None required.								Less than Significant
Impact 3.6-4: Operation of the sewer could result in sewage spills.	None required								Beneficial
LAND USE AND RECREATION									
Impact 3.7-1: Both Alternatives 1 and 2 would require utility easements for new sewers.	None required.								Less than Significant
Impact 3.7-2: The pipeline alignments could affect existing land uses and recreational facilities during the construction phase.	M-3.7-1: Access to the West Newport Oilfield and the City of Newport Beach oil wells will be maintained at all times during construction with at least one lane of traffic suitable for large vehicles.					X	X	X	Less than Significant
	M-3.7-2: The District shall provide detours for designated bike paths affected by construction such that they remain open during the entire construction period. The designated detours will be included in the Traffic Management Plan submitted to Caltrans.	X	X	X					

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		1A	1B	1C	1D	2A	2B	2C	
	M-3.7-3: The District shall maintain access to the Huntington State Beach parking lot at all times.	X	X		X				
NOISE									
Impact 3.8-1: Construction of the proposed project would generate noise that could create nuisance conditions at nearby land uses.	<p>Measure 7.4-1a: Hours of Construction. Construction activities shall be limited to between the hours of 7:30 a.m. and 5:30 p.m. and as necessary to comply with local ordinances. Any nighttime or weekend construction activities would be subject to local permitting.</p> <p>Measure 7.4-1b: Noise Control. All equipment used during construction shall be muffled and maintained in good operating condition. All internal combustion engine driven equipment shall be fitted with intake and exhaust mufflers that are in good condition.</p> <p>Measure 7.4-1c: Pile-Driving Noise Reduction. Contractors shall use vibratory pile drivers instead of conventional pile drivers where feasible and effective in reducing impact noise from shoring of jack-pit locations in close proximity to residential areas, where applicable.</p> <p>Measure 7.4-1d: Construction Notification. Sensitive receptors affected by pipeline replacement projects, and manhole rehabilitation activities shall be notified concerning the project timing and construction schedule, and shall be provided with a phone number to call with questions or complaints.</p>	X	X	X		X	X	X	Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT							LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	2C	
Impact 3.8-2: The proposed project could expose persons to, or generate, excessive groundborne vibration.	None required.								Less than Significant
PUBLIC SERVICES AND UTILITIES									
Impact 3.9-1: Construction of the pipeline could result in minor reduction or interruption of utility service to consumers.	<p>Measure 7.8-3b: Utility Conflicts. In order to reduce potential impacts associated with utility conflicts, the following measures should be implemented.</p> <ul style="list-style-type: none"> • Disconnected cables and lines would be promptly reconnected. • The District shall observe Department of Health Services (DHS) standards which require a 10-foot horizontal separation between parallel sewer and water mains; (2) one foot vertical separation between perpendicular water and sewer line crossings. In the event that the separation requirements cannot be maintained, the District shall obtain DHS variance through provisions of water encasement, or other means deemed suitable by DHS; and (3) encasing water mains in protective sleeves where a new sewer force main crosses under or over an existing sewer main. <p>Measure 7.8-3c: Protect Utilities. The construction contractor shall comply with District requirements and specification to protect existing utility lines.</p>	X	X	X					Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION	
		1A	1B	1C	1D	2A	2B		2C
<p>Impact 3.9-2: Construction would temporarily affect emergency access routes to local residences and businesses.</p>	<p>Measure 7.8-1a: Traffic Control Plan Notifications. The contractor shall provide a copy of the Traffic Control Plan to the Sheriff's Department local police departments and fire departments prior to construction. The District shall provide 72-hour notice of construction to the local service providers of individual pipeline segments.</p> <p>Measure 7.8-1b: Emergency Facility Access. Access to fire stations and emergency medical facilities must be maintained on a 24-hour basis and at least one access to medical facilities shall be available at any one time during construction. The District shall notify appropriate officials at the impacted medical facility regarding construction schedule.</p> <p>Measure 7.8-1c: Trench Openings. Trenches shall be promptly backfilled after pipeline installation. If installation is incomplete, steel trench plates shall be used to cover open trenches.</p> <p>Measure 7.8-2a: Pedestrian Safety. Construction contractors shall ensure that adequate barriers would be established to prevent pedestrians from entering open trenches of an active construction area. Warnings shall also be posted sufficient distances from the work area to allow pedestrians to cross the street at controlled intersections rather than having to jaywalk.</p> <p>Measure 7.8-2b: Equipment Security. Construction contractors shall be responsible for</p>	X	X	X					Less than Significant

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		1A	1B	1C	1D	2A	2B	2C	
	providing appropriate security measures, including the provision of security guards, for all equipment staging and/or storage areas needed for the project.								
TRAFFIC									
Impact 3.10-1: Construction of the project would add temporary construction traffic to local roadways.	M-3.10-1: Dirt haul operations occurring during the peak summer months shall not occur during peak AM or PM periods (6:00-9:00AM and 3:00-6:00PM).	X	X	X	X	X	X	X	Less than Significant
Impact 3.10-2: Implementation of Alternative 1 (Alignments 1A, 1B, and 1C) would require lane closures on PCH during construction of the proposed project which would temporarily reduce roadway capacity.	<p>Measure 7.1-1a: Construction Hours. The District will comply with local ordinances and restrict construction activities to day light hours or as specified in encroachment permits.</p> <p>Measure 7.1-1b: Construction Notification. The District shall post notices or provide notification of construction activities to adjacent property owners (including homeowners and adjacent businesses) at least 72 hours in advance of construction and provide a contact and phone number of a District staff person to be contacted regarding questions or concerns about construction activity.</p> <p>Measure 7.1-1c: Emergency Services Access. The District shall coordinate with officials of adjacent fire station, the Fountain Valley Regional Hospital as well as other hospital to ensure that 24-hour emergency access is available.</p> <p>Measure 7.1-1d: Covered Trenches. To minimize disruption of access to driveways to adjacent land uses, the District or its contractor(s)</p>	X	X	X					Less than Significant

TABLE S-2: SUMMARY OF IMPACTS AND MITIGATION MEASURES

RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	
	<p>shall maintain steel-trench plates at the construction sites to restore access across open trenches. Construction trenches in streets will not be left open after work hours.</p> <p>Measure 7.1-1e: Signage. The District shall provide temporary signage indicating that businesses are open.</p> <p>Measure 7.2-1a: Traffic Control Plans. Traffic control plans will be prepared by a qualified professional engineer, prior to the construction phase of each sewer line project as implementation proceeds.</p> <p>Measure 7.2-1b: Alternative Routes. Traffic control plans will consider the ability of alternative routes to carry additional traffic and 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 and sidewalks, bikeways and equestrian trails, to the greatest extent feasible.</p> <p>Measure 7.2-1c: Encroachment Permits. Encroachment permits for all work within public rights-of-way will be obtained from each involved agency prior to commencement of any construction. Agencies involved include Caltrans, the Orange County Planning and Development Services (PDS) (Development Services Section) and the various cities where work will occur. The</p>							

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RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	
	<p>District will comply with traffic control requirements, as identified by Caltrans and the affected local jurisdictions.</p> <p>Measure 7.2-1d: Traffic Control Plans. Traffic control plans will comply with the Work Area Traffic Control Handbook and/or the Manual of Traffic Controls as determined by each affected local agency, to minimize any traffic and pedestrian hazards that exist during project construction.</p> <p>Measure 7.2-1e: Traffic Disruption Avoidance. The construction technique for the implementation of the proposed sewer lines, such as tunneling, cut and cover with partial street closure, or cut and cover with full street closure, shall include consideration of the ability of the roadway system, both the street in question and alternate routes, to carry existing traffic volumes during project construction. If necessary, adjacent parallel streets will be selected as alternate alignments for the proposed sewer improvements. As required by local jurisdictions, trunk sewers will be jacked under select major intersections, to avoid traffic disruption and congestion.</p> <p>Measure 7.2-1f: Street Closure. Public streets will generally be kept operational during construction, particularly in the morning and evening peak hours of traffic. Lane closures will be minimized during peak traffic hours.</p>							

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RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION
		1A	1B	1C	1D	2A	2B	
	<p>Measure 7.2-1g: Roadway Restoration. Public roadways will be restored to a condition mutually agreed to between the District and local jurisdictions prior to construction.</p> <p>Measure 7.2-1h: Sewer Construction Coordination. The Districts 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.</p> <p>Measure 7.2-1i: Emergency Services. 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 shall be maintained to allow delivery of emergency services.</p> <p>Measure 7.2-1j: OCTA Coordination. OCTA will be contacted when construction affects roadways that are part of the OCTA bus network.</p> <p>Measure 7.2-1l: Trails and Bikeways. Short term construction impacts and closures to locally designated trails and bikeways, as found in the County's Master Plan of Regional Riding and Hiking Trails (RRHT) and Commuter Bikeways Strategic Plan (CBSP), shall be mitigated with detours, signage, flagmen and reconstruction as appropriate. Long term impacts such as permanent trail link closures should be mitigated with</p>							

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RESOURCE / IMPACT	MITIGATION MEASURE	ALIGNMENT						LEVEL OF SIGNIFICANCE AFTER MITIGATION		
		1A	1B	1C	1D	2A	2B		2C	
	<p>provisions for new rights-of-way for trails and/or bikeways and reconstruction.</p> <p>Measure 7.2-1m: County of Orange Coordination. Any construction plans that could potentially impact regional riding and hiking trails or Class I bikeways shall be submitted to the County's Division of Harbors, Beaches and Parks/Trails Planning and Implementation for review and approval prior to project construction activities.</p> <p>Measure 7.2-1n: Trails Restoration. Regional Riding and Hiking Trails and Class I Bikeways impacted by construction activities shall be restored to their original condition after project construction.</p>									
Impact 3.10-3: Implementation of Alignments 1A, 1B, and 1C would restrict access to residences on the coastal side of PCH during construction. Restricted intersections could affect emergency access routes.	None Required.									Less than Significant
CUMULATIVE IMPACTS										
The Project would contribute to the cumulative baseline condition.	None Required.									Less than Significant