EXECUTIVE SUMMARY

S.1 INTRODUCTION

This Subsequent Environmental Impact Report (SEIR) has been prepared for the Orange County Sanitation District's (OCSD or District) proposed Secondary Treatment and Plant Improvement Project (proposed Project). The District proposes to increase secondary treatment capacity at its two treatment plants in order to comply with secondary treatment standards. With this Project the District proposes to modify the treatment element it approved in 1999 when it adopted its Strategic Plan. In 1999 the District certified a Program EIR on its 20-year Strategic Plan, adopted the Plan and approved a treatment scenario that provided for a blend of advanced primary and secondary treatment for all ocean discharge flows. The 1999 PEIR also fully analyzed a "full secondary" treatment scenario that would provide secondary treatment for all ocean discharge flows and addressed many of the same facilities now proposed as part of the current treatment project. Since 1999 some of the facility projects included in that treatment scenario have been modified and new projects have been added that were not previously addressed. Substantial new information on the specific treatment facilities is now available. In addition, other changes have occurred since 1999 that have affected the District's planning for treatment facilities, including changes in current plant operations, projected 2020 wastewater flows and regulatory requirements. These changes are reviewed in this SEIR.

The *CEQA Guidelines* (Section 15162) provide for preparation of a Subsequent EIR when "substantial changes are proposed in the project which will require major revisions of the previous EIR … due to the involvement of new significant effects." This SEIR augments the 1999 Program EIR on the District's 1999 Strategic Plan. It focuses on changes proposed to the District's previously approved wastewater treatment program element, providing additional information on the specific treatment facility upgrade projects now proposed and evaluating the potential environmental effects of these projects to determine whether "new significant environmental effects" would result. The SEIR then compares the potential effects of these projects with the analysis included in the 1999 PEIR.

Pursuant to Section 15082 of the *CEQA Guidelines,* a Notice of Preparation (NOP) was prepared for the project and circulated to the public on March 15, 2004. The NOP requested that interested parties respond within 30 days with comments and concerns related to the proposed projects. The NOP comment period ended on April 23, 2004. A total of 15 NOP comment letters were received. Copies of the NOP and comments received are included in Appendices A and B, respectively. This SEIR addresses each of the issues raised in the comments.

This Draft SEIR will be circulated for public review by local, state and federal agencies and to interested organizations and individuals for a period of 45 days. During the review process, comments can be sent to the attention of Jim Herberg, Orange County Sanitation District, at 10844 Ellis Avenue; Fountain Valley, CA, 92708-7018. Following the comment period, the District will compile comments received and will prepare a Response to Comments document that, together with this Draft SEIR, will constitute

the Final SEIR. The Final SEIR will be presented to the District Board of Directors for certification prior to approval of the Project.

S.2 PROJECT BACKGROUND

S.2.1 DISTRICT SERVICE OVERVIEW

The District provides wastewater services to more than 2.3 million residents within a 470-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. Two treatment plants are situated adjacent to the Santa Ana River (SAR). Reclamation Plant No. 1 is located in Fountain Valley, and Treatment Plant No. 2 is located in Huntington Beach near the coast. Treated effluent is discharged through a 120-inch diameter ocean outfall that extends approximately four miles into the ocean.

OCSD's treatment requirements for the wastewater it discharges to the ocean are established in its National Pollutant Discharge Elimination System (NPDES) permit issued by the Regional Water Quality Control Board – Santa Ana Region (SARWQCB) to comply with the federal Clean Water Act (CWA). Although the CWA requires most treatment plants to provide secondary treatment for all effluent discharged to the ocean, OCSD operated under a modified permit issued pursuant to Section 301(h) of the Act during the past 15 years – providing a blend of advance primary and secondary treatment for its ocean discharge. Section 301(h) of the Act allows qualified wastewater treatment plants employing rigorous pretreatment and extensive ocean monitoring to release less than secondary treated wastewater into deep ocean waters. Up until 2002 the District had been planning to continue to provide treatment capability that would support a blend of advance primary and secondary treatment in compliance with the modified NPDES permit requirements. In 2002, the District decided to implement treatment to meet secondary treatment standards.

S.2.2 1999 STRATEGIC PLAN AND PROGRAM EIR

The District prepared a 1999 Strategic Plan that assessed the District's wastewater system needs through the year 2020 and options to meet those needs. The Strategic Plan identified facility improvements and operations necessary to:

- accommodate projected population growth in the District's Service Area,
- handle peak wet-weather flows that can be more than two and one-half times greater than average dry-weather flows;
- respond to changing environmental regulations; and
- support regional water recycling through participation with the Orange County Water District in the Groundwater Replenishment System Project.

The Strategic Plan covers all aspects of the District's operations. It provides a phased program of projects to replace and rehabilitate the sewer collection system, expand and upgrade the District's two treatment

plants, expand the biosolids management program, and provide additional treated wastewater to Orange County Water District (OCWD) to support the Groundwater Replenishment (GWR) System project.

The District prepared a Program EIR (PEIR) on the 1999 Strategic Plan that was certified in 1999 prior to Board adoption of the Strategic Plan. The PEIR addressed all elements of the Strategic Plan, evaluating the impacts of implementing capital improvements projects proposed for the collection system, treatment plants, discharge facilities and biosolids management facilities. The PEIR evaluated six alternative treatment scenarios: three variations on the level of treatment to be provided for ocean discharge, each considered with and without participation in the GWR System project with OCWD. The six alternatives were evaluated thoroughly at an equal level of detail such that the PEIR provides a complete environmental impact assessment of each alternative, identifying potentially significant impacts and appropriate mitigation measures for each. The District certified the Program EIR and adopted the Strategic Plan in October 1999. As part of the Plan adoption, the District approved Scenario 2, a treatment scenario that provides for a blend of advanced primary and secondary treatment for all ocean discharge flows in compliance with the modified NPDES permit requirements.

S.2.3 CHANGES SINCE THE 1999 STRATEGIC PLAN ADOPTION

Since the 1999 Strategic Plan adoption OCSD has proceeded with implementation of several of the facility projects within the plan. Among various projects underway, the District has implemented a disinfection/dechlorination program for the full flow discharged to the ocean. Disinfection facilities were installed in 2002. The District has proceeded with its commitment to participate with OCWD in the GWR System Project and has approved a joint development, operation and maintenance agreement with OCWD for the project. The GWR System project is under construction now. The GWR System project will purify highly treated wastewater from OCWD and inject it into the groundwater basin to help prevent seawater intrusion along the coastal boundary of the aquifer and to enhance the long-term water supply of groundwater.

The District has also been engaged in renewing its NPDES permit, which is renewed every five years. In July 2002 the District Board of Directors, responding to public input received during the development of its NPDES ocean discharge permit renewal application, voluntarily decided to have its ocean discharge meet secondary treatment standards. The Board directed staff to proceed immediately with planning, design, and implementation of treatment methods that would allow the District to meet federal CWA secondary treatment standards (Resolution No. OCSD 02-14, July 17, 2002). In response to this Board policy directive, OCSD staff began the process to change the recommended level of treatment identified in the Strategic Plan and PEIR from Scenario 2 (a blend of primary and secondary) to Scenario 4 (full secondary). Staff prepared the Interim Strategic Plan Update (2002) and the Full Secondary Treatment Summary Report (2003) to identify the needed elements of the proposed Secondary Treatment and Plant Improvement Project now being proposed.

Subsequently, the SARWQCB renewed the District's NPDES permit reflecting the requirement that the ocean discharge meet secondary treatment standards. A Consent Decree developed between the EPA, SARWQCB and OCSD, filed in November 2004, establishes the timetable for OCSD to complete the necessary facility projects to provide the required secondary treatment by 2012 and sets interim effluent limits as shown in **Table S-1**.

Table S-1
NPDES Permit Limits

	BOD	TSS
Interim Ocean Discharge Limits (until 2011) 30-day average (mg/l)	105	70
Interim Ocean Discharge Limits (2011-2012) 30-day average (mg/l)	95	55
Secondary Treatment Discharge Limits (after 2012) 30-day average (mg/l)	30	30

Source: Orange County Sanitation District.
BOD = biochemical oxygen demand
TSS = total suspended solids
mg/l = milligrams per liter

Since the District elected to increase the level of wastewater treatment, it has maximized its use of its existing secondary treatment facilities. Secondary treatment of effluent has increased such that the District currently provides secondary treatment to approximately 64 percent (153 mgd) of its total flow.[1]

S.3 PROPOSED PROJECT

S.3.1 PROJECT OBJECTIVES

The objectives of the Secondary Treatment and Plant Improvement Project are:

- To construct treatment facilities needed to upgrade the District's secondary treatment capacity to meet secondary treatment standards.
- To operate treatment facilities in a cost-effective and environmentally responsible manner.

S.3.2 PROPOSED FACILITIES

The Secondary Treatment and Plant Improvement Project consists of the group of thirteen individual facility projects In total, six projects are proposed at Plant No. 1 and seven projects are proposed at Plant No. 2. Two of the projects, P1-102 at Plant No. 1 and P2-90 at Plant No. 2, would involve construction of large new secondary treatment facilities to meet project objectives. Two other substantial construction projects, P1-101 and P2-92, are planned to upgrade and expand biosolids handling facilities at both plants. Each of the proposed facility projects would be located within the existing boundaries of the District's two treatment plants, with no construction to occur outside of the plant boundaries (See Figures 2-1 and 2-2 in Chapter 2, Project Description). In addition to these facility projects, the proposed Project includes routine repairs and minor modifications conducted at both plants on an ongoing basis.

The 1999 PEIR evaluated a "full" secondary treatment scenario – Scenario 4 that provided the basis for the proposed Project. Scenario 4 included many of the secondary treatment facility improvement projects now proposed and evaluated in this SEIR. The proposed Project is similar to the Scenario 4 analyzed in the PEIR; however, in addition to the projects identified in the PEIR, the District has identified additional

[1] OCSD Full Secondary Summary Report, 2003.

rehabilitation projects and new facilities necessary to meet the secondary standards effectively. The key differences between the proposed Project and the PEIR Scenario 4 are:

- trickling filters at Plant No. 2 are proposed now as part of project P2-90, rather than aeration basins;
- the PEIR identified 12 new digesters at Plant No. 1 and four at Plant No. 2, while the proposed Project calls for either 2 new digesters or improved sludge-thickening at Plant No. 1 and no new digesters at Plant No. 2; and
- the proposed Project now includes centrifuges at Plant Nos. 1 and 2 for biosolids dewatering.

S.4 ALTERNATIVES

S.4.1 LEVEL OF TREATMENT

OCSD completed a comprehensive evaluation of treatment alternatives in the PEIR. This SEIR tiers from the PEIR and incorporates by reference the evaluation of three different levels of treatment. Previously, it was the District's objective to maintain treatment at a level consistent with the requirements of its modified NPDES permit. In July 2002, the Board elected to adopt a policy of meeting secondary treatment standards. As discussed in Chapter 9.0 of the PEIR, the District's previously preferred treatment alternative – Scenario 2 – was considered the environmentally superior alternative because it was able to fully comply with the NPDES permit requirements that protect public and aquatic health and did not result in significant effects to the marine environment. At the same time, it does not involve the same level of facility construction that expanded secondary treatment does and thus it has fewer and less impacts on land and air resources.

The impact trade-off for the proposed Project is better long-term water quality for the marine environment versus longer and in some cases more intense short-term construction impacts. To the extent the additional biosolids can be reused the impact to land resources for disposal would be minimized. Given the temporary nature of the construction impacts that, while significant, do not cause a permanent environmental change, the environmental benefits of the improvements to effluent quality support an argument that the proposed Project is the environmentally superior alternative. Further, the other two treatment levels that provide less than secondary treatment no long meet the District's objectives or the regulatory requirements.

S.4.2 SECONDARY TREATMENT PROCESS AT PLANT NO. 2

Since 1999, the District has evaluated three treatment processes to provide secondary treatment at Plant No. 2: trickling filters, conventional activated sludge, and membrane bioreactors. As discussed in Chapter 4 – Alternatives of this SEIR, the processes were evaluated based on six main criteria and 23 sub-criteria. Trickling filters were ranked highest primarily on their favorable costs for construction, solids generation, proven technology, lack of waste streams requiring additional processing, proven effectiveness and public acceptance. Trickling filters did involve the tallest structures but the visual impact analysis (Section 3.1) indicates that with mitigation, this facility would not have a significant visual impact. The trickling filters require more land area and the greatest number of piles but the least amount of soil excavation – with a trade-off in more noise impacts versus less traffic hauling and vehicle

air quality impacts. The alternative treatment processes would not avoid or significantly reduce the construction impacts associated with building the required treatment facilities. The District selected trickling filters as the most effective and cost-effective treatment process.

S.4.3 NO PROJECT ALTERNATIVE

Under the CEQA "No Project " Alternative, the District would not implement the proposed Project to expand treatment to meet secondary treatment standards and instead would continue, in the absence of this project, to implement the Scenario 2 blended primary and secondary treatment alternative it approved in 1999 as part of the Strategic Plan adoption. Because of the regulatory changes in the District's NPDES permit and the District's own policy direction to pursue secondary treatment, the Scenario 2 level of treatment would no longer meet the District's objectives or the regulatory requirements for effluent discharge. With the new NPDES permit establishing in effect the impact threshold – non-compliance with the permit would constitute a significant impact. The No Project alternative would not provide the same level of effluent quality to the marine environment that the proposed Project would.

S.5 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-2** contains a summary of the environmental impacts of the proposed Project, the mitigation measures identified to reduce or avoid those impacts, and a determination of the level of impact significance after mitigation measures have been implemented. Numerous impacts are identified as less-than-significant with no mitigation required. Many of the identified impacts identified for this proposed Project were previously identified in the 1999 PEIR. As such, the mitigation measures included in the adopted PEIR Mitigation Monitoring and Reporting Program (MMRP) are restated where applicable in this SEIR. New mitigation measures identified in the SEIR are called out in the table.

The key summary points regarding project impacts are:

- As previously described in the PEIR, the proposed Project would result in significant unavoidable impacts in Air Quality during construction (Impact 3.2-1), Air Quality during operation (Impact 3.2-2) and Noise during construction (Impact3.7-2), as well as cumulative effects in both these areas of air quality and noise.

- The proposed Project would also have a significant unavoidable impact on Traffic during construction (Impact 3.8-1) due to the quantity of soils that must be hauled from the site for disposal/reuse. This was not identified as a significant unavoidable impact in the PEIR.

- The visual impacts of the new trickling filters at Plant No 2. were analyzed including the preparation of visual simulations (Impact 3.1-1) and found to be less-than-significant with mitigation.

- Mitigation measures previously adopted by OCSD as part of the PEIR address most of the impacts identified for the proposed Project. Additional mitigation measures were identified in this SEIR for Visual effects (Impact 3.1-1), Air Quality impacts during construction (Impact 3.2-1), Odor impacts during construction (Impact 3.2-3), Hazardous Soils Impact (Impact 3.4-3), and Operation Noise (Impact 3.7-1).

- The proposed Project does not alter the growth-inducement potential analysis presented in the PEIR.

Table S-2
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
AESTHETICS		
Impact 3.1-1: Although several of the new structures would be visible from adjacent residential neighborhoods, the Project would not substantially alter or degrade the existing visual character of the site and surroundings.	*New Mitigation:* **Measure 3.1-1:** The contractor shall replace damaged landscaping and restore the construction area near each plant's property boundary to a condition similar to existing conditions.	Less than significant.
AIR QUALITY		
Impact 3.2-1: Construction of the project would emit criteria pollutants. Some estimated daily average construction-phase emissions would exceed significance thresholds set by the SCAQMD.	*New Mitigation:* **Measure 3.2-1a**: Soil binders shall be used on site in appropriate areas (generally non-traffic areas such as disturbed areas awaiting next phase of construction activity) where they can effectively reduce dust generation. *From the PEIR MMRP:* **Measure 6.5-1a:** General contractors shall maintain equipment engines in proper tune and operate construction equipment so as to minimize exhaust emissions. Such equipment shall not be operated during second stage smog alerts. **Measure 6.5-1b:** 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 phased and scheduled to avoid emissions peaks, and discontinued during second-stage smog alerts. **Measure 6.5-1c:** General contractors shall use reasonable and typical watering techniques to reduce fugitive dust emissions. All unpaved demolition and construction areas shall be wetted at least twice a day during excavation and construction, and temporary dust covers shall be used to	Significant, unavoidable.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	reduce dust emissions and meet SCAQMD District Rule 403. **Measure 6.5-1e:** Ground cover shall be re-established on the construction site through seeding and watering.	
Impact 3.2-2: Operation of the proposed project would emit criteria pollutants. Estimated daily average emissions would exceed significance thresholds set by the SCAQMD.	*From the PEIR MMRP:* **Measure 6.5-3a:** The District will maintain its ride-share programs to reduce commuter traffic and air quality impacts.	Significant, unavoidable.
Impact 3.2-3: Neither construction or operation of the proposed Project would result in objectionable odors affecting a substantial number of people.	*New Mitigation:* **Measure 3.2-2:** The District shall ensure that contractors remove salvaged/demolished equipment from the treatment plants to minimize potential odors during the removal of existing facilities. Staging areas shall not be used to store salvaged/demolished equipment.	Less than significant.
GEOLOGY AND SOILS		
Impact 3.3-1: The proposed Project could expose people or structures to potential adverse effects due to geologic and seismic hazards.	*From the PEIR MMRP:* **Measure 6.6-1a: Geotechnical Evaluations.** During the project design phase for all facilities, the District will perform design-level geotechnical evaluations. The geotechnical evaluations will include subsurface exploration and review of seismic design criteria to ensure that design of the facilities meet seismic safety requirements of the UBC. Site-specific testing for soils susceptible to liquefaction shall be conducted. If testing results indicates that conditions are present that could result in significant liquefaction and damage to project facilities, appropriate feasible measures will be developed and incorporated into the project design. The performance standard to be used in the geotechnical evaluations for mitigating liquefaction hazards will be minimization of the hazards. Measures to minimize	Less than significant.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	significant liquefaction hazards could include the following: • Densification or dewatering of surface or subsurface soils. • Construction of pile or pier foundations to support pipelines and/or buildings. • Removal of material that could undergo liquefaction in the event of an earthquake and replacement with stable material. Recommendations of the geotechnical report will be incorporated into the design and construction of proposed facilities. **Measure 6.6-1b: Seismic Safety.** The District will design and construct new facilities in accordance with District seismic standards and/or meet or exceed seismic, design standards in the most recent edition of the CBC.	
Impact 3.3-2: Dewatering could create unstable soil conditions, creating potential risk of property damage to proposed and nearby existing structures.	*New Mitigation:* **Measure 3.3-2**: The District or its consultant shall conduct a geotechnical investigation during the design phase of each facility project to develop measures to address poor soil conditions and dewatering requirements to be implemented during project design and construction that will protect people and structures. District shall include the measures in its project design and construction specifications and shall oversee contractor implementation.	Less than significant.
HAZARDOUS AND HAZARDOUS MATERIALS		
Impact 3.4-1: Increasing the level of treatment would increase quantities of the existing hazardous materials used	No mitigation measures are required.	Less than significant.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
in the treatment process. However, continued implementation of the District's existing plan to comply with applicable regulations regarding transport, storage, use and disposal of these chemicals as well as spill prevention and response would reduce potential effects to the environment, the public and plant workers to less than significant.		
Impact 3.4-2: Abandoned oil wells could be encountered during excavation at Plant No. 2 and represent both a safety hazards for workers as well as a potential conduit for surface contamination to reach groundwater if wells are not properly abandoned.	*From the PEIR MMRP:* **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 be notified, and the well will be abandoned following DOGGR specifications for well abandonment.	Less than significant.
Impact 3.4-3: Soils contaminated from previous activities in the area could be encountered during excavation activities and create a significant hazard to the public or environment if not properly contained and disposed of.	*New mitigation:* **Measure 3.4-1:** Any contaminated soils encountered on the project site during site clearance or excavation 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 of remedial actions.	Less than significant.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
HYDROLOGY AND WATER QUALITY		
Impact 3.5-1: The construction of the proposed Project could result in erosion and receiving water quality impacts.	*From the PEIR MMRP* **Measure 6.7-1a: Best Management Practices.** The District will implement BMPs as outlined in the District's OSSWMP. **Measure 6.7-1b: Storm Water Management.** The District will train construction and operation employees in stormwater pollution prevention practices. Individual contractors performing construction at each treatment facility shall be required to comply with provisions of the District's OSSWMP. **Measure 6.7-1c: Stormwater Facility Maintenance.** The District will inspect and maintain all on-site stormwater drains and catch basins on plant property regularly. **Measure 6.7-2a: Groundwater Dewatering.** Construction contractors will comply with the District's Dewatering Specifications. **Measure 6.7-2b: Groundwater Dewatering Disposal.** Water from dewatering will be disposed of in a suitable manner in conformance with the District's OSSWMP as approved by the RWQCB.	Less than significant.
Impact 3.5-2: The proposed Project area would be susceptible to potential flooding impacts, which could damage facilities.	No mitigation measures are required.	Less than significant.
MARINE BIOLOGY		
Impact 3.6-1: The secondary effluent produced as a result of the proposed Project would improve effluent quality.	No mitigation measures are required.	Less than significant.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
NOISE		
Impact 3.7-1: Operation of the proposed Project treatment facilities would generate noise but with mitigation noise levels would not exceed established standards or result in a substantial permanent increase above ambient conditions.	*From the PEIR MMRP:* **Measure 6.4-2a: Noise Performance Standard.** OCSD shall establish a performance noise standard for operational noise at Reclamation Plant No. 1 and Treatment Plant No. 2. The performance standard shall apply to the property line of each plant and shall prohibit hourly average noise levels in excess of 55 dBA between the hours of 7:00 a.m. to 10:00 p.m. and 50 dBA between the hours of 10:00 p.m. and 7:00 a.m., as required by the Fountain Valley and Huntington Beach Noise Ordinances. Available mitigation to achieve the performance standard consists of locating noise sources away from sensitive receptors, installation of acoustical enclosures around noise sources, installation of critical application silencers and sequential mufflers for exhaust noise, installation of louvered vents, directing vent systems away from nearby residences, and constructing soundwalls at the property lines. *New Mitigation:* **Measure 3.7-1:** All buildings will be designed to insulate noise of the machinery such that fence-line noise standards would not be exceeded.	Less than significant.
Impact 3.7-2: The proposed Project would generate noise during construction that could result in substantial temporary increases in ambient noise levels in the project vicinity.	*From the PEIR MMRP:* **Measure 6.4-1a: Construction Hours.** The District's standard specifications provide construction hours of work between 7:00 AM and 5:30 PM, except for emergency or special circumstances requiring that work be done during low-flow periods. **Measure 6.4-1b: Muffled Equipment.** All equipment used during construction shall be muffled and maintained in	Significant and unavoidable.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
	good operating condition. All internal combustion engine driven equipment shall be fitted with intake and exhaust mufflers that are in good condition. **Measure 6.4-1c: Pile-Driving Noise Reduction.** OCSD shall consult with an acoustical engineer to evaluate other alternatives for mitigating impacts from extensive pile driving activities when necessary. **Measure 6.4-1d: Alternatives for Foundations.** OCSD will evaluate the use of alternative foundation designs to avoid a need for pilings where cost-effective and technically feasible. **Measure 6.4-1e: Construction Notification.** Nearby sensitive receptors affected by construction shall be notified concerning the project timing and construction schedule, and shall be provided with a phone number to call with questions or complaints. **Measure 6.4-1f: Pile Driving Noise Reduction.** Noise-reduction measures will be implemented such as acoustic insulation or by other means during the construction period at Plant No. 1 to reduce a nuisance condition to the closest residences when pile driving is taking place.	
Impact 3.7-3: The proposed Project could generate groundborne vibration during construction that could temporarily expose persons to vibration above ambient conditions.	No mitigation measures are required.	Less than significant.
TRAFFIC /TRANSPORTATION		
Impact 3.8-1: Periods of peak construction of the proposed Project would add to traffic along local access streets (including freeway access) causing temporary but	*From the PEIR MMRP:* **Measure 6.2-1: Contractor Coordination.** For each major project or construction period, the District shall complete a	Significant, unavoidable.

Table S-2 (Continued)
Summary of Impacts and Mitigation Measures

ENVIRONMENTAL IMPACT	MITIGATION MEASURES	LEVEL OF SIGNIFICANCE AFTER MITIGATION
substantial increases in traffic over existing conditions.	detailed construction schedule and notify the Cities of Fountain Valley and Huntington Beach of construction. Construction vehicles shall be run on a schedule to minimize truck traffic on arterial highways during peak periods.	
Impact 3.8-2: Operation of the proposed Project would increase vehicle trips on local access roads only slightly and would not substantially increase traffic levels over existing conditions or road capacity.	No mitigation measures are required.	Less than significant.
CUMULATIVE IMPACTS		
The proposed Project would result in cumulatively significant impacts to air quality and noise.	No mitigation measures are available.	Significant, unavoidable.

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