Notice of Preparation

Date May 12, 2003

To: Responsible and Trustee Agencies and Interested Parties

Subject Notice of Preparation (NOP) of a Supplemental Environmental Impact Report for Treatment Plant No. 2 Headworks Replacement Project (Job No. P2-66)

The Orange County Sanitation District (District) is the lead agency under the California Environmental Quality Act (CEQA) for the preparation of a Supplemental Environmental Impact Report (SEIR) for the replacement of the Headworks at Treatment Plant No. 2 (Plant No. 2) in Huntington Beach, California. The proposed design of this project has been altered since the District's Strategic Plan Program Environmental Impact Report (PEIR) was certified in October 1999. The SEIR will augment the analysis contained in the 1999 PEIR. The 1999 Strategic Plan proposed substantial upgrades to the existing Headworks at Plant No. 2. However, in 2002, the District conducted a thorough evaluation of the existing Headworks facilities to determine the amount of upgrades needed. The District concluded that it would be less costly and more practical to construct a new Headworks than to continue upgrading the existing facility after 40 years of operation with numerous expansions and modifications.

The District is soliciting the views of interested persons and agencies as to the scope and content of the environmental information to be studied in the SEIR. In accordance with CEQA, agencies are requested to review the project description provided in this NOP and provide comments on environmental issues related to the statutory responsibilities of the agency. The SEIR will address written comments submitted during this initial review period. In accordance with the time limits mandated by CEQA, responses to the NOP must be received by the District no later than 30 days after receipt of this notice. **We request that comments to this NOP be received no later than June 12, 2003.** Please send your comments to Jim Herberg, c/o Angie Anderson at the address shown below. Please include a return address and contact name with your comments.

Project Title: Treatment Plant No. 2 Headworks Replacement Project Supplemental Environmental Impact Report No. 2

Signature: _____

Title: _____

Address: Orange County Sanitation District
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Fountain Valley, CA 92708
Attn: Angie Anderson

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INTRODUCTION

The Orange County Sanitation District (District) is proposing to construct a new Headworks at Treatment Plant No. 2 (District Job Number P2-66). The Headworks functions as the initial point of entry for all influent flow into the plant. This Notice of Preparation (NOP) has been prepared to notify interested parties pursuant to California Environmental Quality Act (CEQA) requirements that the District, as the lead agency, is beginning preparation of a Supplemental Environmental Impact Report (SEIR) for the Headworks Replacement Project.

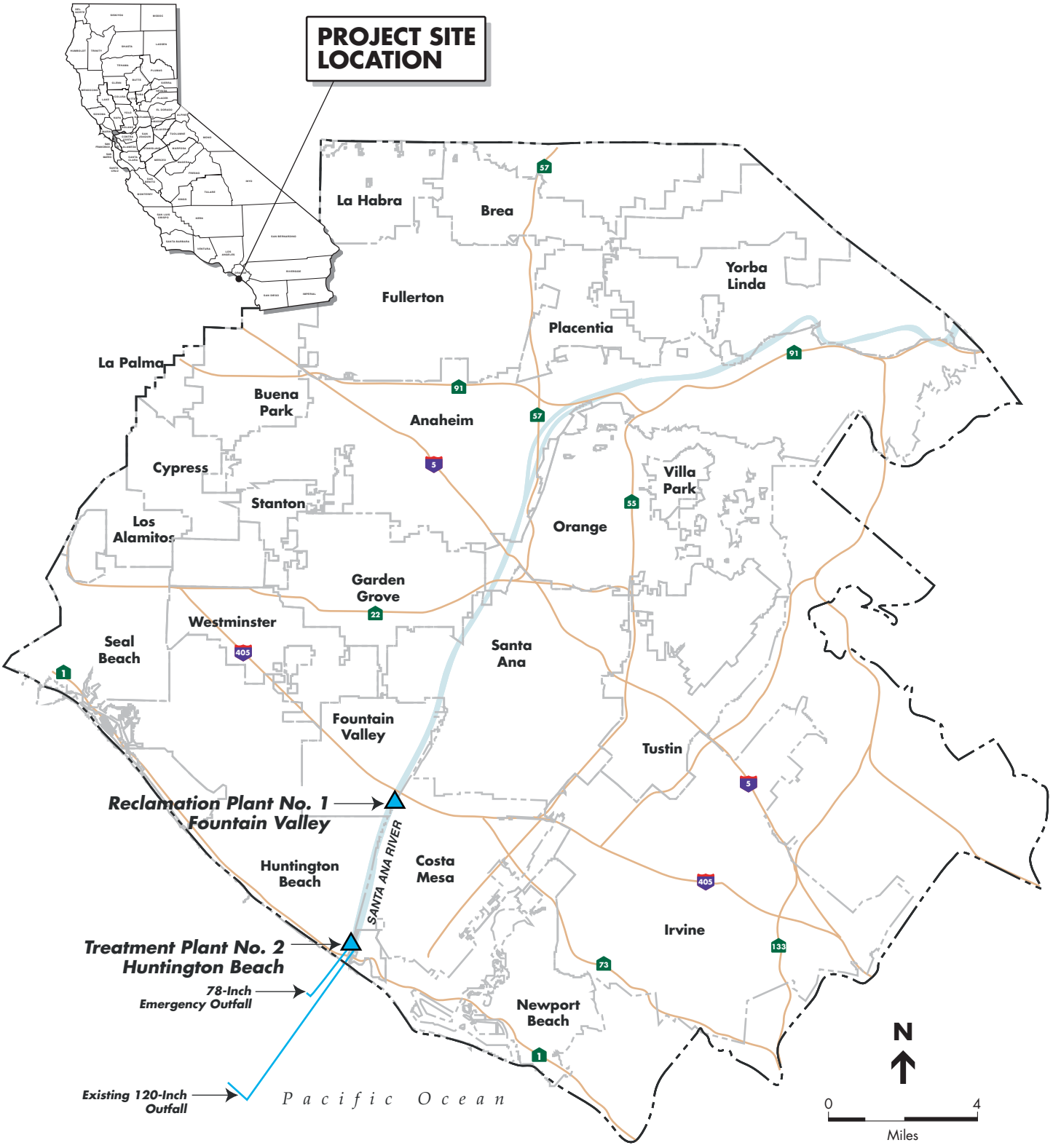
The project was not described in the 1999 Program Environmental Impact Report (PEIR) prepared for the District's 20-year Strategic Plan. The PEIR evaluated a project that would have substantially upgraded the existing Headworks. After further engineering analysis, the District determined that a Headworks replacement was necessary rather than an upgrade of the existing facility. Therefore, the District is preparing SEIR pursuant to the CEQA Guidelines, Section 15163. CEQA provides that a supplement to a previously certified EIR may be prepared if a discretionary action is required for a project for which new information has become available, but for which little revision to the initial EIR, is foreseen as necessary. A SEIR discloses the new information and assesses potential impacts pertaining exclusively to the new information.

PROJECT BACKGROUND

The District provides wastewater services to approximately 2.3 million people within a 450-square mile area of northern and central Orange County. The District operates the third largest wastewater system on the West Coast, consisting of over 650 miles of trunk and subtrunk sewers, two regional wastewater treatment plants, and an ocean disposal system. Figure 1 shows the District's service area.

The District was formed in 1946 under the County Sanitation District Act of 1923 as a single purpose entity, providing wastewater treatment for northern and central Orange County. The District began full operation in 1954 with a network of trunk sewers, two treatment plants, and a 7,200-foot long, 78-inch diameter ocean outfall with a design rated capacity of 240 million gallons per day (mgd). A new 120-inch diameter ocean outfall with a design rated capacity of 480 mgd was installed in 1971. This outfall, currently in service, extends approximately four miles into the ocean where it connects with a diffuser extending another 6,000 feet northward. The effluent discharged to the ocean is a blend of advanced primary and secondary treated wastewater as specified in the District's National Pollutant Discharge Elimination System (NPDES) permit issued jointly by the Santa Ana Regional Water Quality Control Board (RWQCB) and the U.S. Environmental Protection Agency (U.S. EPA).

Plant No. 2 is located in Huntington Beach adjacent to the Santa Ana River (SAR) about 1,500 feet from the Pacific Ocean. The plant is located on approximately 110-acres bounded by Brookhurst Street on the northwest, Pacific Coast Highway on the southwest, and the SAR on the east. The existing treatment facilities occupy the southern two-thirds of the site, with the area to the northeast remaining undeveloped. The plant receives wastewater from five major sewers and provides a mix of advanced primary and secondary treatment. All of the effluent from the plant is discharged to the ocean outfall disposal system.



SOURCE: Environmental Science Associates

OCSD Headworks Replacement SEIR / 201168 ■

Figure 1

Service Area with Existing Treatment Facilities

In 1999, the District prepared a Strategic Plan to identify projects needed to accommodate projected population growth in its service area through 2020. A PEIR for the Strategic Plan was certified in October 1999. The PEIR assessed the potential effects of the Strategic Plan on the local and regional environment. The PEIR also addressed the growth-accommodating role of the District in treating projected flows from the agencies it serves. The PEIR provides program-level analysis of long-term broad planning strategies and project-level analysis for projects designed and planned to occur in the near-term (up to the year 2005).

PROJECT DESCRIPTION

The proposed project would replace the existing Headworks at Plant No. 2 which receives wastewater from five major trunk sewers within the District's service area: Bushard, Miller-Holder, Coast, Newport, and Interplant. The new Plant No. 2 Headworks facility would provide the point of entry for the trunk sewers, measuring their flow and providing grit and debris (preliminary treatment). The major treatment processes and equipment to be installed as part of the proposed project are listed below. Table 1 summarizes the size, height, and depth of each component.

- **Diversion Structure.** An underground concrete structure through which the influent trunk sewers are connected to the treatment plant.

- **Influent Metering Structure.** An underground concrete structure housing four magnetic flow meters and associated piping. The structure is equipped with a 15-ton bridge crane to facilitate equipment maintenance and replacement.

- **Bar Screens Facility.** A concrete structure housing six sewage screening mechanisms (bar screens). The bar screens are rated for a 340 mgd peak wet weather capacity. The facility also includes Influent Screening Channels located below grade.

- **Screenings Handling System**. The screenings are removed washed, dewatered and placed into disposal trucks in the Screenings Handling System. Conveyors transport the material from the Screening Washing Building to the Screenings Loading Building.

- **Influent Pump Station**. The Influent Pump Station consists of a wet well, a pump station and a discharge channel designed to convey a peak flow of 340 mgd. The lower level of the pump room contains seven sewage pumps and piping. The upper level is the motor room. The sewage pumps discharge into the Influent Pump Station Discharge Channel.

- **Grit Basins**. The six vortex sewage grit removal units (grit basins) and six grit pumps are rated to accommodate a peak flow of 340 mgd.

- **Grit Handling Building.** Four grit dewatering units load grit into a trailer housed inside the building.

- **Primary Splitter Structure.** An underground structure housing 26 sluice gates for flow control from the Headworks to downstream primary treatment.

- **Primary Influent Metering Structure.** Three magnetic flow meters measure flow from the Primary Splitter Structure to downstream treatment facilities.

TABLE 1: SUMMARY OF PROJECT COMPONENT AREA, HEIGHT, AND DEPTH

	Area (square feet)	Height (feet)	Depth below grade (feet)
Diversion Structure	3,900	1.5	39
Influent Metering Structure	5,220	2	42
Bar Screens Facility/ Influent Screening Channels	9,100	49.4	35
Screening Washing Building	1,976	18	9.5
Screening Loading Building	1,800	47.5	1.5
Influent Pump Station,	5,500	55	31.5
Influent Pump Station Discharge Channel	3,800	24.5	5.3
Grit Basins/Grit Pump Station	9,300	25	15.5
Grit Handling Building	3,600	56	2.7
Primary Splitter Structure	2,280	56	20.5
Primary Influent Metering Structure	2,775	1.5	20.5
Primary Treatment Ferric Chloride Facility	2,000	33	3.5
Headworks Odor Control Facility	69,000	48	0
Trunkline Odor Control Facility	5,250	48	0
Power Building E	12,000	20.5	3.8

Source: Carollo Engineers, 2003

- **Primary Treatment Ferric Chloride Facility.** Houses two 21,000 gallon above-ground ferric chloride storage tanks (Ferric chloride is used in the wastewater process as a settling-aid for advanced primary treatment and odor control) and six chemical feed pumps for dosing.

- **Headworks Odor Control Facility.** These facilities include large-capacity fans, bio-trickling filter towers, chemical scrubber towers, chemical feed systems, and chemical storage tanks.

- **Trunkline Odor Control Facility.** Provides odor treatment for incoming trunk sewers. These facilities include large-capacity fans and bio-trickling filter towers.

- **Power Building E.** Houses electrical equipment including switchgear, variable frequency drives, and motor control centers. Six electrical transformers are located outside along the southeast of the building.

- **Site Piping.** Additional buried piping and electric ductbanks would be installed as described below.

  - Diversion sewers and diversion boxes would be installed for four large diameter (78-inch to 108-inch) influent sewer trunks from the existing Headworks to the new Headworks.
  - Three large diameter (84-inch to 96-inch) primary influent lines and junction boxes to connect the new Headworks to the existing primary influent lines.
  - Foul air ducts from the new Headworks and trunk lines to the odor control facilities.
  - Chemical pipelines for ferric chloride and sodium hypochlorite.
  - Associated drain pipelines, storm drains, and utility pipelines including high pressure air, reclaimed water, plant water, and potable water.
  - Electrical ductbanks feeding electric power to the process buildings.

- **Chemical Storage.** The ferric chloride system would include two 21,000-gallon above-ground storage tanks located adjacent to the main facility. The new system would use approximately 6,000 gallons of ferric chloride per day.

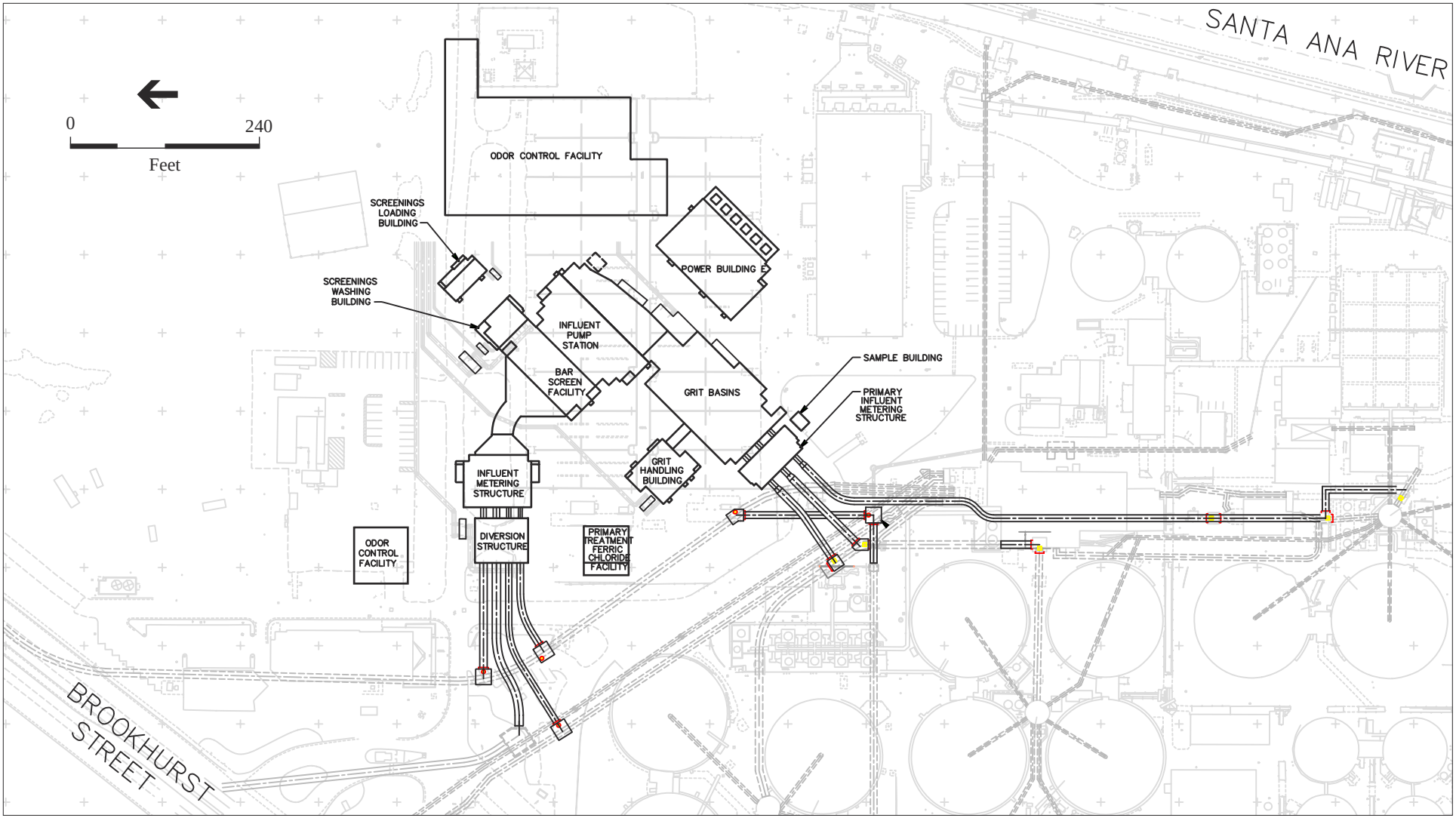
  Sodium hypochlorite would be stored in a 16,000 gallon above-ground storage tank. The new system would use up to 2,200 gallons per day of sodium hypochlorite. An additional 12,000 gallon above-ground storage tanks would be installed for sodium hydroxide (average of 900 gallons used per day) and an 8,000 gallon tank for hydrochloric acid (use of 800 gallons per day, two days a month). All tanks would have containment facilities in the event of a spill.

The new Headworks would have a 340 mgd peak wet weather flow capacity and would not increase the existing treatment capacity of Plant No.2. The odor control system would consist of new bio-tower scrubbing technology followed by conventional chemical scrubbers. Both the bio-towers and the conventional scrubbers would be approximately 48 feet tall located adjacent to the main facility.

Figure 2 shows the proposed site plan of the new Headworks facility. Wastewater from each trunk sewer passes through a separate section of the diversion structure and metering structure before converging upstream of the bar screens. After passing through the bar screens, the wastewater flows by gravity to the pump station where it is pumped into a channel that conveys flow through grit chambers and primary influent metering structure to the primary clarifiers.

The new screenings and grit handling buildings would be equipped with washing, dewatering, and loading facilities adjacent to the main Headworks structure. On an average day, the new Headworks would remove 5-1/3 cubic yards (cy) (7.2 tons) of grit and 19 cy (18 tons) of screenings. Grit removal would require 125 haul truck trips per year, compared to the present 250 because of the proposed dewatering facilities. Screening washing and compacting will reduce the average daily volume of screenings to 11 cy which would require 185 haul truck trips per year, compared to the present 240.

The new Headworks facility would be up to 56 feet tall as summarized in Table 1. The project would occur within a 30-acre portion of the Plant No. 2 which contains the existing sludge drying beds, Headworks, two underground storage tanks and a truck washing facility. These facilities would be decommissioned and demolished as part of the project. The road network and parking area on the affected portion of the Treatment Plant would be modified as part of the project.



SOURCE: Orange County Sanitation District, May 2003

Figure 2

Proposed Headworks Site Plan

Construction of the project would require approximately four years and eight months. All of the construction would occur within the property boundaries of the District's Plant No. 2. Construction would require excavation of approximately 175,000 cy of soil, 75,000 cy of which would be disposed of off site, requiring approximately 3,750 haul truck trips. The new Headworks and ancillary facilities would be fully constructed prior to the demolition of the existing facility.

The new Headworks would be connected to the incoming sewers and treatment plant in three phases during the final 14 months of construction. In each phase, one or two of the trunk lines would be connected to the new Headworks and a temporary bypass line would be constructed to redirect the flow out of the new Headworks back to the existing Headworks. Then a third of the existing primary clarifiers would be taken out of service and connected to the new Headworks. The clarifiers would then be placed back in service. While the primary clarifiers are out of service some of the influent would be redirected to the District's Reclamation Plant No. 1 to reduce the total flow through Plant No. 2. The existing Headworks would be demolished in two phases: a portion before the second tie-in to the existing primary clarifiers and the remaining portion before the third tie-in to the existing primary clarifiers.

Prior to completion of the new Headworks, the District may reroute the Newport Trunk Sewer via one of two alternatives being proposed under a separate project. In one alternative, the sewer would connect with the Coast Trunk Sewer near Pacific Coast Highway through a new force-main pipeline. The other alternative would construct a new force main system within the marshy area of the Banning Ranch entering the Plant No. 2 from under the Santa Ana River approximately 2,700 feet north of the Pacific Coast Highway (PCH). Currently, the Newport Trunk Sewer and Force Main Project is being evaluated under a separate CEQA document, but on a parallel track with this project.

DISCUSSION OF POTENTIAL IMPACTS

The SEIR will focus on potential impacts associated with implementation of the project. The following discussions highlight potentially significant impacts of the project to be addressed in the SEIR. Other environmental resource areas (i.e., agricultural, cultural, mineral resources, population and housing, recreation.) discussed in the 1999 PEIR will not be addressed in the SEIR since the project would not alter the analysis or conclusions of the PEIR. The SEIR will develop mitigation measures where feasible to avoid or lessen the identified impacts.

AESTHETICS

The proposed project would involve constructing new structures at the District's Plant No. 2 in Huntington Beach. The character of the proposed structures would be similar to the existing facilities on the plant. The existing landscaping and sound wall along Brookhurst Street would screen views of the Headworks facility from the residential areas across Brookhurst Street. The structures would be visible from across the SAR by the residential areas approximately ½ mile east of the plant. The SEIR will evaluate the potential visual impacts of the project.

AIR QUALITY

Construction activities related to the installation of the Headworks facility and ancillary equipment would consist of excavation, trenching, construction, pipeline installation, and demolition. Construction exhaust emissions would be generated from construction equipment, earth movement and demolition activities, construction workers' commute, and material hauling for the entire construction period. It is anticipated that the proposed project would be completed within four years and eight months. Construction-related activities would occur eight hours per day, five days per week. During this period, due to the size of the construction project, daily emissions thresholds of significance established by the SCAQMD could be exceeded. The SEIR will estimate daily exhaust emissions based on detailed construction activities to assess the potential short-term air quality impact.

Operation of the new Headworks facility would require air emissions permits from the South Coast Air Quality Management District (SCAQMD). The permits would cover the odor control facilities, back-up power sources, and the overall Headworks facility. The SEIR will identify and evaluate necessary air emissions permits and performance standards for odor control.

GEOLOGY AND SOILS

Plant No. 2 is located near the Newport-Inglewood Fault, an active and potentially hazardous fault zone. Multiple fault splays run through the treatment plant site. Other major faults in the region include the Whittier Fault Zone and the Palos Verdes Fault. Seismic activity on any of these known faults within the region could cause considerable ground shaking in the project. Since earthquake-related hazards can not be avoided in the Southern California region, the project site may be subjected to ground motion which could affect structures. Critical structures and infrastructure at the new Headworks facility would not be located on known faults subject to surface rupture. Plant No. 2 overlies a liquefaction hazard area. The potential for soil liquefaction in the project area is considered high due to the unconsolidated soils and high water table.

The existing Headworks facility is unmanned but periodically serviced by District personnel. The new Headworks facility would continue to be serviced and operated as such. The project would construct new facilities to replace existing facilities, providing more protection from seismic impacts than currently exists because of more stringent design and construction standards presently required. The design of the new Headworks would account for these seismic hazards present on the treatment plant site. The SEIR will summarize the geotechnical information and evaluate potential geologic hazards and measures being proposed to minimize hazards.

HAZARDS AND HAZARDOUS MATERIALS

The project would include the installation of the following above-ground storage tanks:

- two 21,000-gallon ferric chloride tanks
- one 16,000-gallon sodium hypochlorite tank
- one 12,000-gallon sodium hydroxide tank
- one 8,000-gallon hydrochloric (Muriatic) acid tank

The chemicals would be routinely delivered to the treatment plant by tank truck, as under existing conditions. However, the quantity of these chemicals would increase and the possibility would continue to exist for an accidental release. All chemical storage tanks would be enclosed with secondary containment. The SEIR will evaluate the potential hazard of the chemicals to be stored and used. As part of this project, two existing underground storage tanks would be removed. The SEIR will also evaluate the potential for on-site structures slated for demolition to contain asbestos and lead-based paint.

HYDROLOGY AND WATER QUALITY

The project would require excavating soils to install the new Headworks and ancillary structures. Since groundwater is shallow, the excavations would likely encounter groundwater, requiring dewatering during the construction activities. In addition, the large excavation could collect rainwater during a storm. Collected groundwater and storm water would be discharged through the treatment plant in compliance with the District's dewatering permit and standard best management practices.

During the final 14 months of construction, a portion of the primary treatment facilities at Plant No. 2 would be disconnected from the existing Headworks and connected to the new Headworks, temporarily reducing primary treatment capacity. During peak flow periods, the plant's effective primary treatment capacity could be impacted. This could temporarily affect the quality of the effluent discharged to the ocean. The SEIR will provide an analysis of potential effects of the project on the effluent quality and identify any operational strategies or changes in the treatment process that may be needed during the construction period to allow the District to comply with the discharge permit requirements.

TRAFFIC AND TRANSPORTATION

Construction activities would increase traffic to Plant No. 2 as workers access the site, building materials are delivered, and excavated soils are removed. This increase is not expected to significantly impact local intersections. Workers parking would be provided onsite at the District's Plant No. 2 in Huntington Beach. Once the Headworks and ancillary buildings and equipment are constructed, operations of the facility would have similar effects on local traffic as under current conditions as described in the PEIR.

NOISE

Construction activities associated with the project would generate short-term noise that could exceed fence-line noise thresholds, although it is anticipated that no pile driving activities would be required for construction. Construction noise would only occur during the day in compliance with local ordinances. Measures will be evaluated to reduce the nuisance where possible.

CUMULATIVE EFFECTS

The SEIR will evaluate the project's contribution to the cumulative baseline condition for each environmental resource listed in the CEQA Guidelines Appendix G. The construction activities conducted for the new Headworks project would be in addition to the construction activities

described in the 1999 Strategic Plan as well as additional projects proposed for the treatment plant subsequent to the completion of the Strategic Plan PEIR. Localized effects to noise, air quality, and traffic from these construction activities could be cumulatively significant.