Appendix D

Cultural and Historical Data and Reports

ESA

Public Version

Groundwater Replenishment System Final Expansion Project and Water Production Enhancement Project

Phase I Cultural Resources Study

Prepared for
Orange County Water District

August 2016

ESA

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160387.01

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Phase I Cultural Resources Study

1. Introduction

Environmental Science Associates (ESA) has been retained by the Orange County Water District (OCWD) to prepare a Cultural Resources Study for the proposed Groundwater Replenishment System (GWRS) Final Expansion Project and the Water Production Enhancement Project (referred below as the project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an existing advanced water treatment facility constructed by the OCWD and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high-quality source of treated water to recharge the Orange County Groundwater Basin, and to protect the Orange County Groundwater Basin from seawater intrusion. The project would provide facilities that would allow an increase in the amount of water to be conveyed to the GWRS and further supplement the local water supplies. The GWRS Final Expansion Project involves eight components: (1) increasing microfiltration (MF) capacity; (2) increasing reverse osmosis (RO) treatment capacity; (3) increasing ultraviolet (UV) treatment capacity; (4) increasing final product water capacity; (5) construction of an effluent pump station: (6) conversion of existing gravity pipeline to a pressurized pipeline; and (7) construction of a separate headworks and bypass pipeline. The Water Production Enhancement Project involves the proposed flow equalization tank with a pump station, and conveyance piping and flow meter vault.

The project is eligible for funding from the State Revolving Fund (SRF) Loan Program, which is administered by the California State Water Resources Control Board (SWRCB). Since the SRF Loan Program is partially funded by the U.S. Environmental Protection Agency (EPA), it is subject to federal environmental regulations including Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended. This Phase I cultural resources study has been prepared in support of the environmental documentation being prepared for the GWRS Final Expansion Project and the environmental documentation being prepared for the Water Production Enhancement Project in compliance with CEQA and Section 106 of the NHPA. The OCWD is the lead agency responsible for compliance with CEQA.

ESA personnel involved in the preparation of this study include: Candace Ehringer, M.A., R.P.A., Principal Investigator; Arabesque Said-Abdelwahed, MPP, report author and surveyor; Vanessa Ortiz, M.A., R.P.A, literature review analyst. Resumes of key personnel are provided in **Appendix A**.

1.1 Project Location

The project is located within the cities of Fountain Valley and Huntington Beach (**Figure 1**). A portion of the project is located at the existing OCWD GWRS Facility in Fountain Valley. The project is also located at the southern portion of OCSD Treatment Plant No. 1 and OCSD Treatment Plant No. 2 in Huntington Beach. In addition, the project includes the renovation of an existing waste water pipeline located along the west side of the Santa Ana River that extends from Treatment Plant No. 2 to the OCWD GWRS Facility. The project is located within section 32 of Township 5 South/Range 10 West and it is located in sections 5, 17, 20, of Township 6 South/Range 10 West as shown on the Newport Beach, California 7.5-minute U.S. Geological Survey topographic map (**Figure 2**).

1.2 Project Description

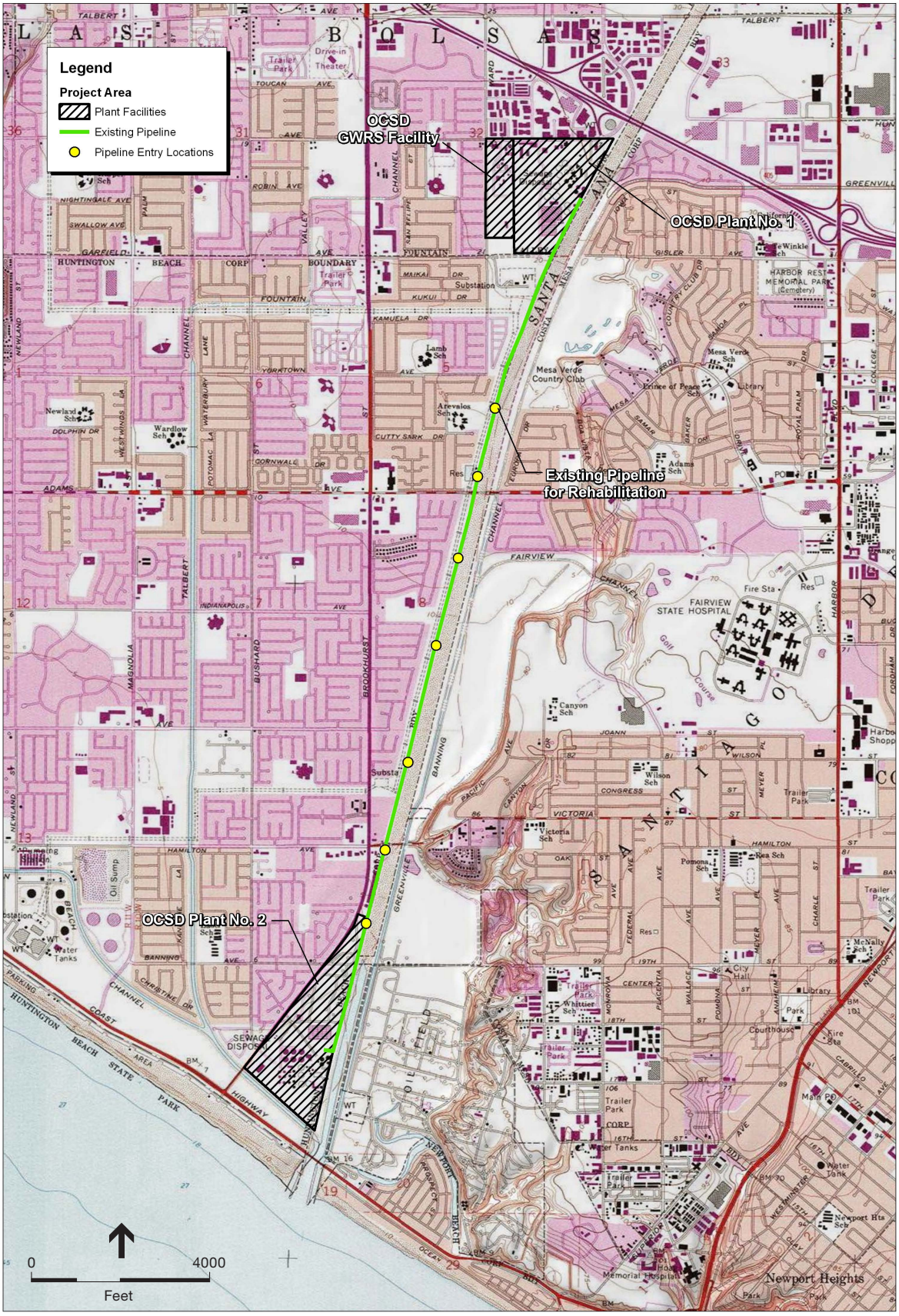
The project evaluated in this report comprises of two separate projects. The first is the GWRS Final Expansion Project. The second is the Water Production Enhancement Project. The components of each project are illustrated in **Figure 3** as well as the potential staging area.

1.2.1 GWRS Final Expansion Project

This project includes conversion of an existing gravity pipeline to a pressurized pipeline, increasing MF capacity, increasing RO Treatment Capacity, increasing UV treatment capacity at the OCWD GWRS Facility, final product water and construction of a pump station at the OCSD Plant No. 2. The GWRS takes highly treated wastewater that would have been previously discharged into the Pacific Ocean and purifies it using a three-step advanced treatment process consisting of MF, RO and UV light with hydrogen peroxide. Specifically, the project will include the following seven improvements, as well as potential staging areas:

1.2.1.1 Microfiltration Capacity

The project would increase the MF treatment capacity by approximately 45 million gallons per day (MGD). The expansion of the MF facility at the OCWD water treatment site involves construction of 12 new treatment basins increasing the overall number of treatment basins from 36 to 48. The construction of the 12 new basins would occur by increasing the size of the MF building and basement, which houses most of the actual MF equipment. The MF basement includes all piping, valves, pumps, instruments, and control panels. The basement would be expanded by excavating an area of approximately 88-feet long by 165-feet wide by 25-feet deep from finished grade. The depth of disturbed soils is unknown; therefore, excavations may extend to native and undisturbed soils.

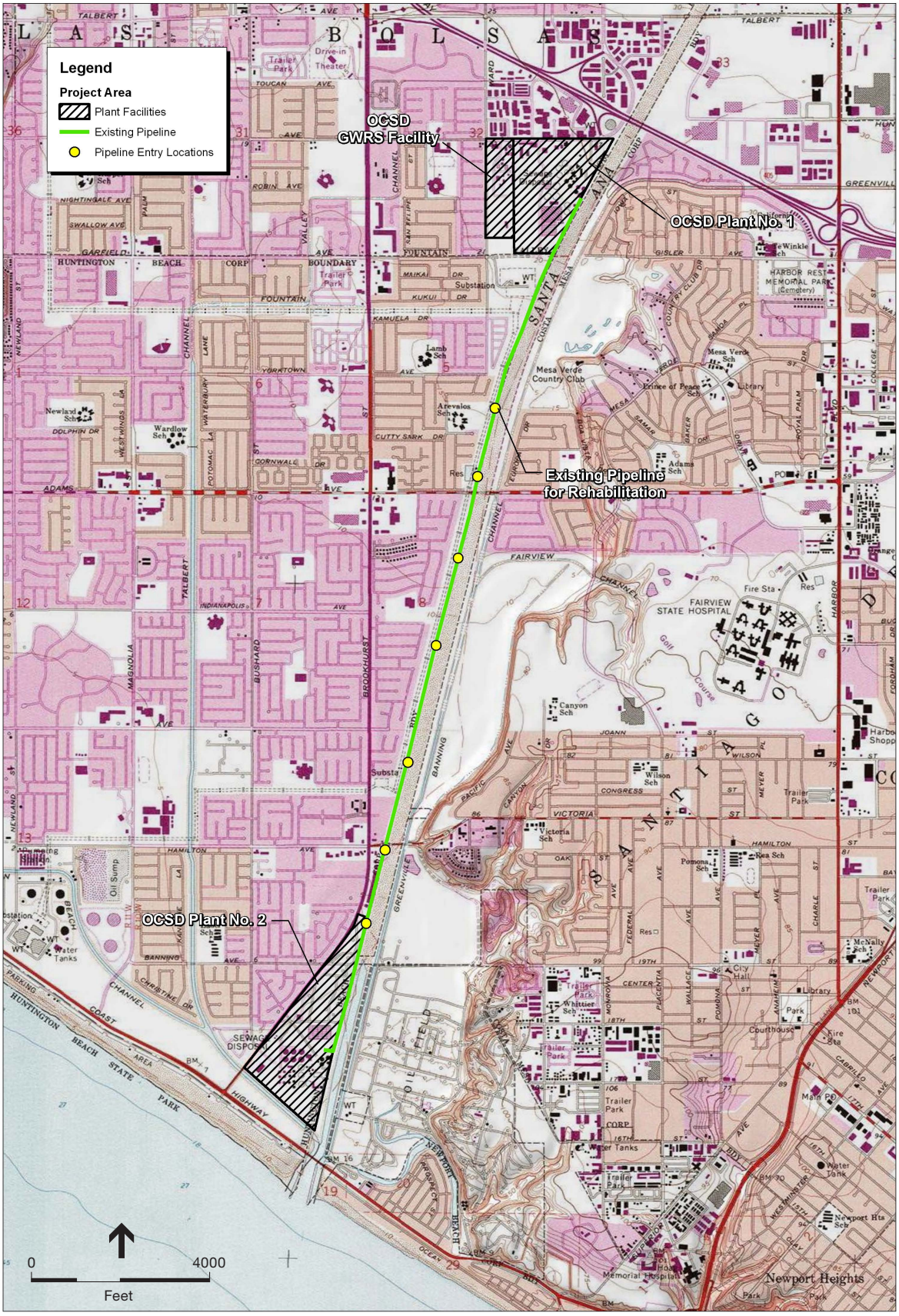


SOURCE: USGS Newport Beach, CA (1978) 7.5' DRG;

OCWD Groundwater Replenishment System Final Expansion Project . P160387.01

Figure 1

Local Vicinity Map Topographic Base



SOURCE: USGS Newport Beach, CA (1978) 7.5' DRG;

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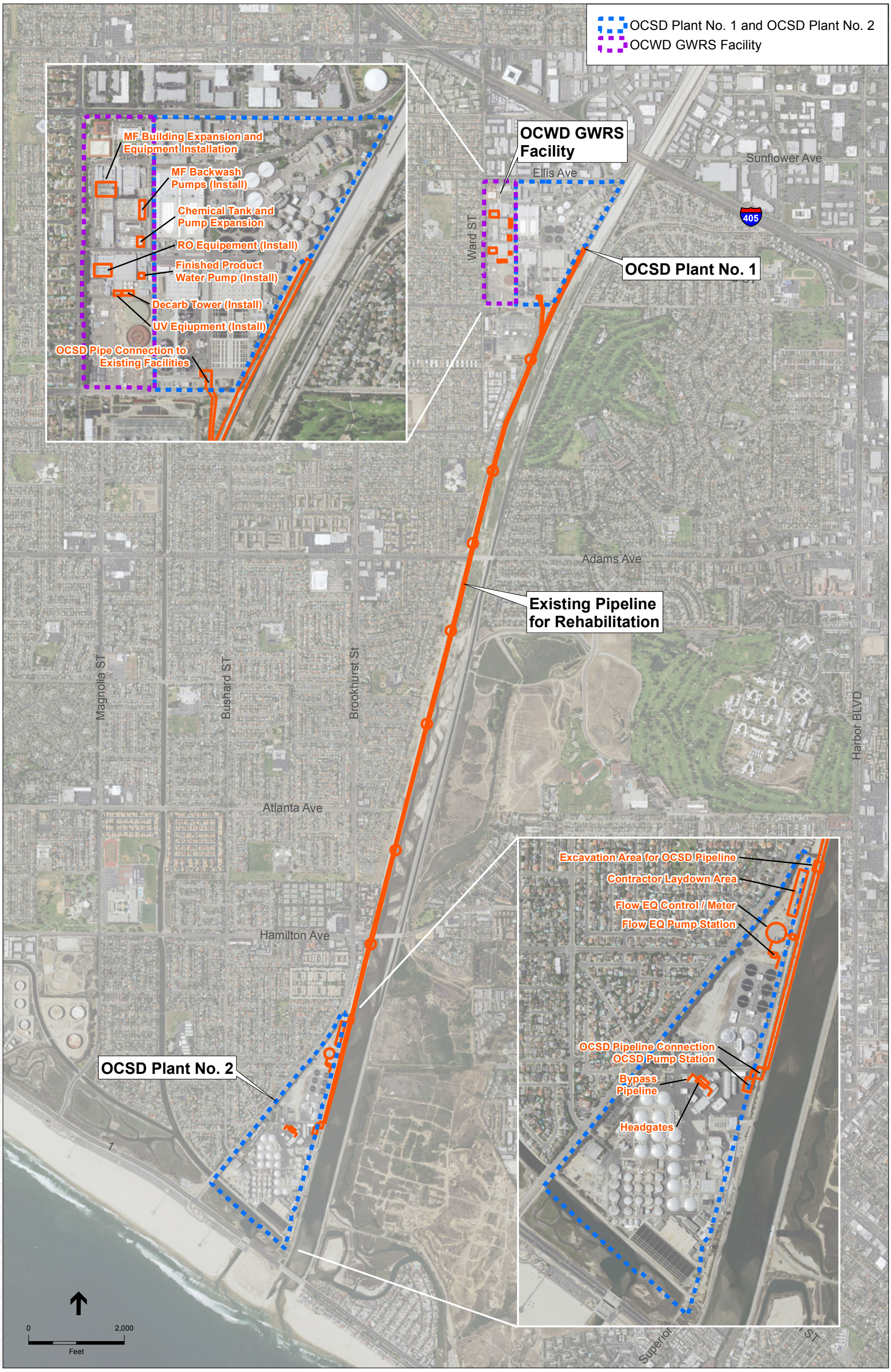
Figure 2

Project Location Topographic Base



SOURCE: ESRI

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Figure 3
Site Plan

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In the excavated area, a foundation would be built including installation of foundation piles. The 12 new concrete treatment basins would be constructed on this foundation. Each basin would be installed with a centrifugal pump, associated piping, and other appurtenances. These 12 new treatment basins would make up a one and a half new treatment trains that would be added to the existing two trains within the MF West building. In addition, most of the electrical equipment associated with the new treatment basins would be added to the new expanded MF West electrical building.

The MF product water or effluent discharges into an existing 2 million gallon underground concrete reservoir commonly referred to as a break tank. This reservoir contains two sets of vertical turbine pumps. One set (six existing pumps) is used for pumping MF product water back to the MF facility for a backwashing process. The other set of pumps (six existing pumps) is used to transfer the MF product water from the reservoir to the RO Facility. As part of the final expansion, two new 200-horsepower vertical turbine pumps would be installed in the existing break tank facility to pump MF product water back to the MF facility for the backwash process. The break tank facility already has pump slots constructed for these two new pumps, and therefore, the construction work for these pumps only involves lifting the pumps into the slots and connecting up the piping and electrical.

1.2.1.2 Reverse Osmosis Treatment Capacity

The project would increase the RO treatment capacity by approximately 30 MGD. The project would include the installation of up to six additional treatment trains at the OCWD water treatment site. The treatment train includes pressure vessels, RO membranes, RO feed pumps, and associated piping for each train. The new equipment for the six new trains would be tied into the existing piping for the expansion. No excavation would be required.

1.2.1.3 Ultraviolet Treatment Capacity

The project would increase the UV Treatment capacity at the OCWD water treatment site by approximately 30 MGD. The project would install three additional treatment trains. Each train would consist of three steel vessels containing 432 total UV light lamps. Each vessel would be equipped with two electrical panels, feed and product piping, valves and instruments. The existing concrete pad and canopy would be sized to house the three new trains. Therefore, only the equipment for each of the three trains would need to be installed in their designated areas. Equipment required for this phase includes one crane, one fork lift and two man lifts. No excavation would be required.

1.2.1.4 Final Product Water

The project would also expand the chemical and final product water facilities at the OCWD water treatment site. As part of the project, one additional decarbonation tower would be added to the existing decarbonation area. The concrete pad for the decarbonation tower is already constructed. An additional pump would also be added to the existing product water pump station. The pump would be a 2,000-horsepower vertical turbine pump installed within an existing pump station building with a slot already in place. No excavation is required.

1.2.1.5 Construction of OCSD Plant No. 2 Effluent Pump Station

A new pump station (Effluent Pump Station) would be constructed at the OCSD Plant No. 2 to convey water flows within the existing OCSD pipeline to the OCWD water treatment facility site. The pump station would include four pumps (three duty and one standby) with the capacity to pump 30 MGD each. The pumps would be housed in a new concrete pump house, approximately 100-feet long by 50-feet wide by 20-feet high with a 25-foot deep wet well.

In addition to the Effluent Pump Station, a second smaller Plant Water Pump Station would be constructed at OCSD's Plant No. 2. The Plant Water Pump Station serves OCSD's Plant No. 2 with hose bib and washdown water for plant operations. The Plant Water Pump Station would have four plant water pumps housed in a 48-feet long by 58-feet wide by 20-feet high concrete building. The concrete wet well for the pumps is estimated to be 25-feet deep. The depth of disturbed soils is unknown; therefore, excavations may extend to native and undisturbed soils.

1.2.1.6 Pipeline Re-Lining

The source water for the project would come from both of the treatment plants owned and operated by the OCSD. Facilities are already in place to receive source water, secondary effluent, from OCSD's Plant No. 1 wastewater treatment facility. However, to provide an additional 60 MGD of source water for the project, OCWD would need to receive additional wastewater flows from OCSD Plant No. 2 wastewater treatment site. To convey the wastewater flows to the GWRS water treatment site, an existing 3.5-mile long, 66-inch diameter gravity concrete reinforced pipe (CRP) would be relined to become a 54-inch diameter pressure pipeline. The existing pipeline is located along an OCSD easement corridor that extends west of the Santa Ana River levee. The OCSD easement corridor is located on approximately 5 feet of fill material (OCWD, pers.comm. and SRI, 2007). The re-lining of the pipeline will be completed either by utilizing existing manholes (approximately spaced 2,000 feet from each one) for access into the pipeline or by excavating a 10-feet wide by 10-feet long by 5-feet deep area to expose the pipeline to allow entry into the pipe to re-line the existing pipeline. For each option, construction equipment would be staged at each pipeline opening. As shown in Figure 3, eight entry locations are proposed. All excavations along the eight entry locations would be within fill and recently disturbed soils. To connect the pipeline to the new Effluent Pump Station on the OCSD facility, approximately 100 feet of 54-inch diameter steel pipe would be constructed. Additionally, to connect the pipeline to OCWD facilities, approximately 100 feet of 54-inch diameter steel pipe would be installed by trenching and backing filling on OCWD property. The depth of fill material is unknown at this location in OCSD Plant No. 1.

1.2.1.7 OCSD Plant No. 2 Separate Headworks and Bypass Pipeline

The majority of the wastewater flows from OCSD Plant No. 2 are needed as source water to meet the demands of the project. Currently, OCSD Plant No. 2 receives reject concentrated brine waters from treatment processes from the Inland Water Agencies. These concentrated reject flows, i.e. brines, are currently not allowed to be recycled through the existing GWRS per the Division of Drinking Water permit for GWRS. Therefore, a separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that would segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. The bypass pipeline

would be a 66-inch diameter CRP with an alignment that runs approximately 200 feet around the existing headworks for Plant No. 2. Connected to the bypass pipeline would be a new separate headworks facility, including a screenings building (65-feet long by 55-feet wide by 20-feet deep) and a grit basin building (65-feet long by 40-feet wide by 20-feet deep). Also along the bypass pipeline alignment would be a 20-feet deep concrete metering vault with vault dimensions of 100-feet wide by 100-feet long by 14-feet deep. Excavation would be required for this component of the project. This project component location is underlain by disturbed soils from previous placement of several pipelines (OCSD, pers. comm.). The depth of disturbed soils is unknown; therefore, excavations may extend to native and undisturbed soils.

1.2.2 Water Production Enhancement Project

The Water Production Enhancement Project involves three construction activities: (1) construction of flow equalization tank, (2) construction of a pump station, and (3) construction of conveyance piping and flow meter vault.

A 6-million-gallon (MG) flow equalization storage tank would be constructed at the north end of OCSD Plant 2. The location of the flow equalization storage tank is shown in Figure 3. The storage tank would be a circular-welded steel tank approximately 200-feet in diameter and 30-feet tall from existing grade, with a 4-pump (3 duty + 1 standby), pump station, and approximately 500-linear feet of 36-inch diameter connection piping with a meter vault (15- x 20- x 10-ft deep) connected to the operations of the tank. The pump station would be housed in a 30- x 40- x 20-ft block wall building.

Excavation would be required for construction of the flow equalization tank, pump station, and pipeline/vault. In addition to excavation, an existing concrete parking lot would be demolished for the tank pad.

1.2.3 Potential Staging Areas

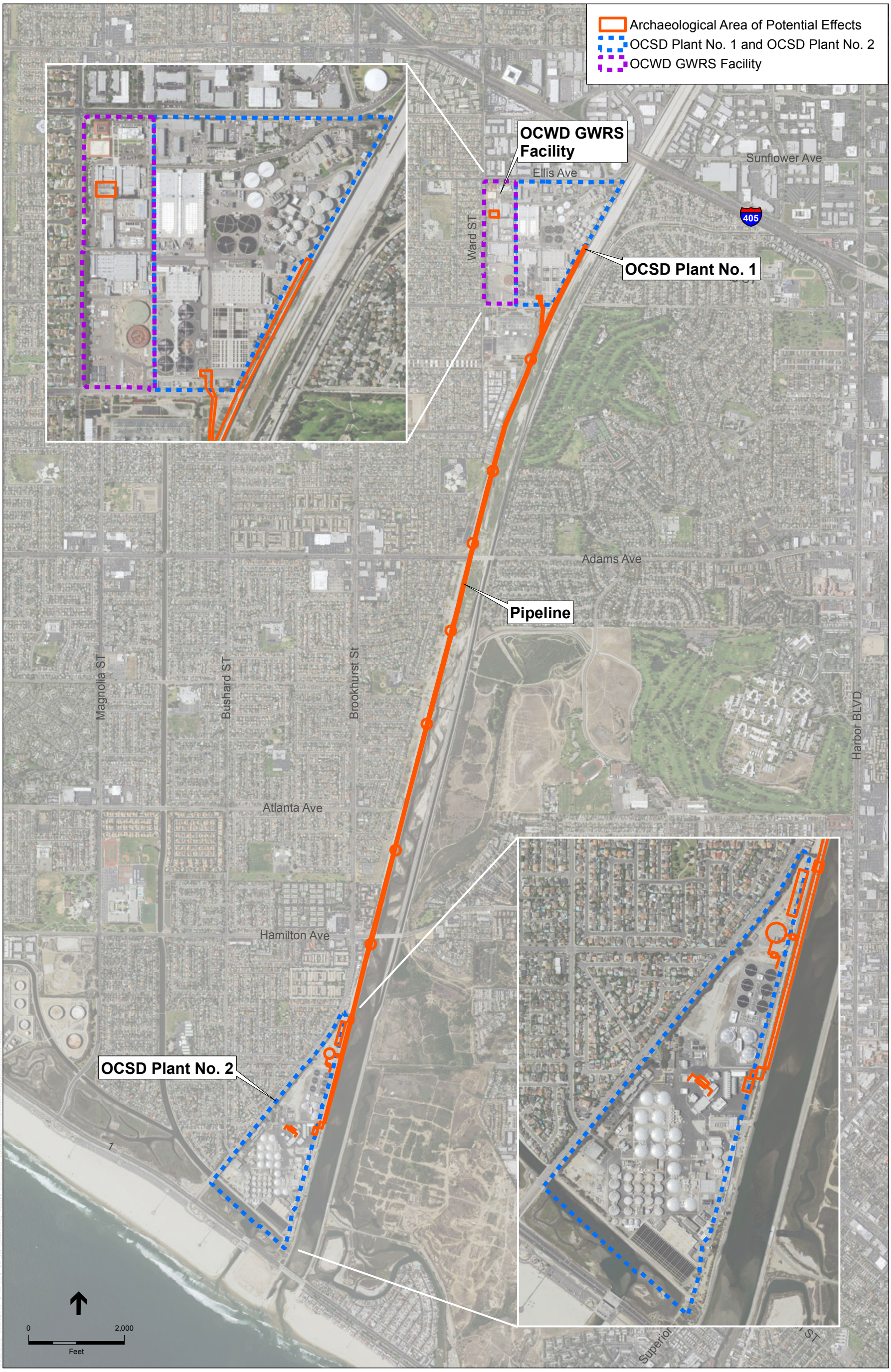
During construction of the project, construction equipment, vehicles, and materials could be stored at up to two staging areas: the OCSD Plant No. 2 and along the existing pipeline at each pipeline opening. No excavations would occur at the potential staging areas.

2. Area of Potential Effects

An Area of Potential Effects (APE) was established for the project according to Section 106 of the NHPA in coordination with the OCWD (**Figure 4**). An APE is defined as:

> …the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The APE is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking (36 Code of Federal Regulations [CFR] 800.16[d]).

The horizontal APE encompasses the MF Building Expansion (about 0.50-acre), 3.5-mile long existing pipeline, the excavation area for OCSD pipeline (about 650 square feet), the contractor laydown area (about 0.70-acre), the area encompassing the Flow Equalization Pump Station and Flow Equalization Control/Meter (about 3.70-acres), the area encompassing the OCSD pump station (about 0.28 acre), and the area encompassing the headgates and bypass pipeline (about 0.5 acre). The vertical APE includes the anticipated maximum depth of ground disturbance of 25 feet below ground surface and the maximum height of the flow equalization tank of 30 feet above ground surface.



SOURCE: ESRI

OCWD Groundwater Replenishment System Final Expansion Project . P160387.01

Figure 4

Area of Potential Effects

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3. Setting

3.1 Environmental Setting

The project is located in the cities of Huntington Beach and Fountain Valley, Orange County, in southern California. The topography of Orange County includes a combination of mountains, hills, flatlands, and shorelines. Urbanized Orange County is predominantly within an alluvial plain, semi-enclosed by the Puente and Chino Hills to the north, the San Joaquin Hills to the south, and the Santiago Foothills and the Santa Ana Mountains to the east. The Puente and Chino Hills, which identify the northern limit of the plains, extend for 22 miles and reach a peak height of 7,780 feet. To the east and southeast of the plains are the Santa Ana Mountains, which have a peak height of 5,691-feet. The Santa Ana River is located adjacent to and just east of the project APE.

The City of Huntington Beach is located near the coastal margin of the Los Angeles Basin, which includes Orange County, and is underlain by more than 15,000 feet of stratified sedimentary rocks of marine origin (Oakeshott, 1978). Soils in the project APE are composed of younger alluvium that is divided into river floodplain deposits (washed in from the northeast as sand, gravel and silt), and tidal flat/lagoonal type deposits lie in the gaps (finer-grained silts and clays) (City of Huntington Beach, 1996).

3.2 Prehistoric Setting

The prehistory of the region has been summarized within four major horizons or cultural periods: Early [10,000 to 8,000 before present (B.P.)], Millingstone (8,000 to 3,000 B.P.), Intermediate (3,000 to 1,500 B.P.), and Late Prehistoric (1,500 B.P to A.D. 1769) (Wallace, 1955; Warren, 1968).

3.2.1 Early Period (10,000 to 8,000 B.P.)

The southern California coast may have been settled as early as 10,000 years ago (Jones, 1992). These early inhabitants were likely maritime adapted groups exploiting shellfish and other marine resources found along the coastline (Dixon, 1999; Erlandson, 1994; Vellanoweth and Altschul, 2002). One site located in Newport Bay, Orange County (CA-ORA-64) dates to approximately 9,500 years B.P. and suggests early intensive utilization of shellfish, fish, and bird resources (Drover et al., 1983; Macko, 1998).

3.2.2 Millingstone Period (8,000 to 3,000 B.P.)

The Millingstone Period dates to about 8,000 to 3,000 B.P. The transition from the Early Period to the Millingstone Period is marked by an increased emphasis on the processing of seeds and edible plants. The increased utilization of seeds is evident by the high frequencies of handstones (manos) and milling slabs (metates). Around 5,000 B.P., mortar and pestles appear in the archaeological record. Mortars and pestles suggest the exploitation of acorns (Vellanoweth and Altschul, 2002).

Millingstone Period sites in Orange County generally date to between 8,000 and 4,000 B.P. Archaeological evidence suggests a low, stable population centered around semi-permanent residential bases. sites are located along coastal marine terraces, near the shoreline, bays, or estuaries. Satellite camps were used to take advantage of seasonally available resources. Marine resources were supplemented by seeds and small terrestrial mammals. Later Millingstone Period sites indicate a growing reliance on shellfish (Cleland et al., 2007).

3.2.3 Intermediate Period (3,000 to 1,500 B.P.)

The Intermediate Period dates to between 3,000 to 1,500 B.P. Archaeological sites indicate a broader economic base, with increased reliance on hunting and marine resources. An expanded inventory of milling equipment is found at sites dated to this period. Intermediate Period sites are characterized by the rise of the mortar and pestle and small projectile points (Cleland et al., 2007).

The number of Intermediate Period sites in Orange County declined over time, particularly around Newport Bay. Climate changes and drier conditions led to the congregation of populations near freshwater sources. Settlement patterns indicate greater sedentism, with reduced exploitation of seasonal resources and a lack of satellite camps. Coastal terrace sites are not reoccupied during this time period. These shifts in settlement and subsistence strategies led to growing population densities, resource intensification, higher reliance on labor-intensive technologies, such as the circular fishhook, and more abundant and diverse hunting equipment. Rises in disease and inter-personal violence, visible in the archaeological record, may be due to the increased population densities (Cleland et al., 2007; Raab et al., 1995).

3.2.4 Late Prehistoric Period (1,500 B.P. to A.D. 1769)

The Late Prehistoric Period began around 1,500 B.P. and lasted until Spanish contact in 1769. The Late Prehistoric Period resulted in concentration of larger populations in settlements and communities, greater utilization of the available food resources, and the development of regional subcultures (Cleland et al., 2007). Artifacts from this period include milling implements, as well as bone and shell tools and ornaments.

Newport Bay and San Joaquin Hills, abandoned during the Intermediate Period, were reoccupied during the Late Prehistoric Period. These settlements were smaller than in the Intermediate. Village sites were located in areas with a multitude of resources. Small collector groups moved between a small number of these permanent settlements (Cleland et al., 2007).

3.3 Ethnographic Setting

The project is located at the southern extent of Gabrielino-Tongva territory, near the boundary with the Juaneño, or more properly Acjachemen, to the south. Traditionally, the boundary between the two is identified as either Aliso Creek or the drainage divide to the north of the creek, roughly 20 miles south of the project APE, respectively. Both are included here.

3.3.1 Gabrielino-Tongva

Prior to European colonization, the Gabrielino-Tongva, a Takic-speaking group, occupied a diverse area that included: the watersheds of the Los Angeles, San Gabriel, and Santa Ana rivers; the Los Angeles basin; and the islands of San Clemente, San Nicolas, and Santa Catalina (Kroeber, 1925). The Gabrielino-Tongva are reported to have been second only to the Chumash in terms of population size and regional influence (Bean and Smith, 1978).

The Gabrielino-Tongva were hunter-gatherers and lived in permanent communities located near the presence of a stable food supply. Community populations generally ranged from 50-100 inhabitants, although larger settlements may have existed. The Gabrielino-Tongva are estimated to have had a population numbering around 5,000 in the pre-contact period, with many recorded villages along the drainages mentioned above and in the Los Angeles basin proper (Kroeber, 1925).

Beginning with the Spanish Period and the establishment of Mission San Gabriel Arcángel, Native Americans throughout the Los Angeles area suffered severe depopulation and their traditional culture was radically altered. Nonetheless, Gabrielino-Tongva descendants still reside in the greater Los Angeles and Orange County areas and maintain an active interest in their heritage.

3.3.2 Juaneño-Acjachemen

The Juaneño or Acjachemen, also Takic-speaking, occupied a more restricted area extending across southern Orange County and northern San Diego County. Juaneño territory extended along the Pacific coast from midway between Arroyo San Onofre and Las Pulgas Canyon in the south to Aliso Creek in the north, and continued east into the Santa Ana Mountains from Santiago Peak in the northwest to the headwaters of Arroyo San Mateo in the southeast (Kroeber 1925). The Juaneño were bounded by the Gabrielino-Tongva to the north, and the Luiseño to the east and south.

The Juaneño-Acjachemen, like the Gabrielino-Tongva, subsisted on small game, coastal marine resources, and a wide variety of plant foods such as grass seeds and acorns. Their houses were conical thatched reed, brush, or bark structures. The Juaneño inhabited permanent villages centered around patrilineal clans, with each village headed by a chief, known as a *nu* (Kroeber 1925; Sparkman 1908). Seasonal camps associated with villages were also used. Each village or clan had an associated territory and hunting, collecting, and fishing areas. Villages were typically located in proximity to a food or water source, or in defensive locations, often near valley bottoms, streams, sheltered coves or canyons, or coastal strands (Bean and Shipek 1978).

The Juaneño-Acjachemen population was estimated to have numbered approximately 1,000 at the time of European contact. Beginning with the Spanish Period and the establishment of Mission San Juan Capistrano, the Juaneño-Acjachemen suffered severe depopulation and their traditional culture was radically altered. Nonetheless, descendants still reside in the Orange County area and maintain an active interest in their heritage.

3.4 Historic Setting

The historic setting for the project is divided into three primary periods: the Spanish Period (A.D. 1769-1821), the Mexican Period (A.D. 1821-1846), and the American Period (A.D. 1846 to present).

3.4.1 Spanish Period (A.D. 1769-1821)

The first European exploration of Orange County began in 1769 when the Gaspar de Portola expedition passed through on its way from Mexico to Monterey. A permanent Spanish presence was established with the founding of Mission San Juan Capistrano in 1776 (Hoover et al., 2002). The mission was founded to break the long journey from Mission San Diego to Mission San Gabriel (near Los Angeles). A large, ornate church was constructed at the mission from 1797 to 1806, but was destroyed only six years later in an earthquake. The church was not rebuilt.

In an effort to promote Spanish settlement of Alta California, Spain granted several large land concessions from 1784 to 1821. At this time, Spain retained title to the land; individual ownership of lands in Alta California was not granted. The parts of Orange County that would become the City of Huntington Beach and the City of Fountain Valley began as a Spanish land concession, known as Rancho Los Nietos. A grant of 300,000 acres was given to Manuel Nieto in 1784 in consideration of his military service (City of Huntington Beach, 2000; Logan, 1990).

3.4.2 Mexican Period (A.D. 1821-1846)

In 1821, Mexico won its independence from Spain. Mexico continued to promote settlement of California with the issuance of land grants. In 1833, Mexico secularized the missions, reclaiming the majority of mission lands and redistributing them as land grants. During this time, Rancho Los Nietos was divided into five smaller ranchos. The area of Huntington Beach became part of Rancho Las Bolsas, a 33,460-acre rancho granted to Maria Catarina Ruiz in 1834 (County of Orange, 2011). Maria was the widow of Jose Antonio Nieto, Manuel Nieto's son.

Many ranchos continued to be used for cattle grazing by settlers during the Mexican Period. Hides and tallow from cattle became a major export for Californios (Hispanic Californians), many of whom became wealthy and prominent members of society. These Californios led generally easy lives, leaving the hard work to vaqueros (Hispanic cowhands) and Indian laborers. Californios lives centered primarily around enjoying the fruits of their labors, throwing parties and feasting on Catholic holidays (Pitt, 1994; Starr, 2007).

3.4.3 American Period (A.D. 1846 to present)

Mexico ceded California to the United States as part of the Treaty of Guadalupe Hildalgo, which ended the Mexican-American War (1846-1848). The treaty also recognized right of Mexican citizens to retain ownership of land granted to them by Spanish or Mexican authorities. However, the claimant was required to prove their right to the land before a patent was given. The process was lengthy and costly, and generally resulted in the claimant losing at least a portion of their land to attorney's fees and other costs associated with proving ownership (Starr, 2007).

The Gold Rush (1849-1855) saw the first big influx of American settlers to California. Most of these settlers were men hoping to strike it rich in the gold fields. The increasing population provided an additional outlet for Californios' cattle (Bancroft, 1890). As demand increased, the price of beef skyrocketed and Californios reaped the benefits.

The culmination of the Gold Rush, followed by devastating floods in 1861 and 1862 and droughts in 1863 and 1864, led to the rapid decline of the cattle industry (Bancroft, 1890). Many Californios lost their lands during this period, and former ranchos were subsequently divided and sold for agriculture and residential settlement.

Following the admission of California into the United States in 1850, the region of modern day Orange County was originally part of Los Angeles County. Orange County was established in 1889, with the City of Santa Ana as County Seat (Armor, 1921).

3.4.4 History of the Project Vicinity

The project vicinity was once part of a 300,000-acre Spanish land grant, Rancho Los Nietos, a part of which became Rancho Las Bolsas during the Mexican Period. Abel Stearns later acquired the land for ranching and cultivation of barley. During the land boom of the 1880s, the area was subdivided for agricultural and residential development (County of Orange, 2011; Milkovich, 1986).

Previously called Shell Beach and later Pacific City, the town changed its name to Huntington Beach in 1904 when Henry E. Huntington extended Pacific Electric Railway service to the little community (Carlberg and Epting, 2009; Milkovich, 1986). Discovery of oil in the 1920s led to a population explosion in the town. In one month, the population of Huntington Beach went from 1,500 to 6,000.

3.4.4.1 History of OCSD Plant No. 1 and No. 2 and OCWD GWRS

OCSD

In 1921, the cities of Santa Ana and Anaheim agreed to construct a sewer outfall extending into the Pacific Ocean, thus forming the Orange County Joint Outfall Sewer (JOS), and marking the beginning of the OCSD. In 1924, JOS construction was completed and the first sewage from member cities was discharged into the system. Three years later, the outfall was extended to a distance of 3,000 feet from shore, and a new screening plant and pumping station was constructed. In 1941, the first units of the Primary Treatment Plant, now referred to as Plant No. 1) were constructed. In 1954, OCSD assumed the duties of JOS and officially commenced operations. Over the next 50 years, additional services and facilities were constructed at OCSD Plant No. 1. The portion of the existing facility where the proposed OCSD pipe connection would connect was constructed within the last 10 years. In 1954, Plant No. 2 was constructed near the ocean and adjoining Santa Ana River and the second ocean outfall was constructed. OCSD is currently a public agency that provides wastewater collection, treatment, and disposal services for approximately 2.5 million people in central and northwest Orange County. OCSD is a special district that is governed by a Board of Directors consisting of 25 board members appointed from 21 cities, sanitary districts, and one representative from the Orange County Board of Supervisors.

OCSD has two operating facilities (Plants 1 and 2) that treat wastewater from residential, commercial and industrial sources (ocsd.com).

OCWD GWRS

In the 1950s, traces of salt water were detected in the Orange County Groundwater Basin as far as 5 miles inland, although the area of intrusion was focused primarily across a 3-mile stretch between the cities of Newport Beach and Huntington Beach.

In order to protect the basin from further seawater intrusion, the OCWD constructed the Water Factory 21 (WF-21) in 1978. This facility treated wastewater utilizing a purification process including RO, and injected it into 23 multi-casing injection wells along the Talbert Gap forming a hydraulic barrier to seawater intrusion. (gwrsystem.com).

In 2004, WF-21 discontinued production and was demolished in February 2007 to provide space for the construction of GWRS. GWRS provides new technology and is a larger water purification plant compared to the previous WR-21. Construction of the GWRS broke ground in September 2004 and was completed in late 2007. The GWRS consists primarily of membrane processes, replacing the physical-chemical processes of WF-21. Unlike WF-21, the GWRS utilizes MF as pre-treatment prior to RO and UV light with hydrogen peroxide. The GWRS product water not only supplies water to an expanded seawater barrier, but is also pumped to two of OCWD's recharge basins where it blends with Santa Ana River and imported waters and naturally filters into the groundwater basin, ultimately becoming part of north and central Orange County's drinking water supply (gwrsystem.com).

4. Regulatory Framework

4.1 Federal

4.1.1 Section 106 of the National Historic Preservation Act

Archaeological resources are protected through the NHPA of 1966, as amended (54 United States Code of Laws [USC] 300101 et seq.), and its implementing regulation, Protection of Historic Properties (36 CFR Part 800), the Archaeological and Historic Preservation Act of 1974, and the Archaeological Resources Protection Act of 1979. Prior to implementing an "undertaking" (e.g., issuing a federal permit), Section 106 of the NHPA requires federal agencies to consider the effects of the undertaking on historic properties and to afford the Advisory Council on Historic Preservation and the State Historic Preservation Officer (SHPO) a reasonable opportunity to comment on any undertaking that would adversely affect properties eligible for listing in the National Register of Historic Places (National Register). As indicated in Section 101(d)(6)(A) of the NHPA, properties of traditional religious and cultural importance to a tribe are eligible for inclusion in the National Register. Under the NHPA, a resource is considered significant if it meets the National Register listing criteria at 36 CFR 60.4.

4.1.2 National Register of Historic Places

The National Register was established by the NHPA of 1966, as "an authoritative guide to be used by federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (36 CFR 60.2). The National Register recognizes both historic-period and prehistoric archaeological properties that are significant at the national, state, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior, 2002):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or,

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing (U.S. Department of the Interior, 2002). In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior, 2002). The National Register recognizes seven qualities that, in various combinations, define integrity. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling,

and association. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance.

4.2 State

4.2.1 California Environmental Quality Act

CEQA is the principal statute governing environmental review of projects occurring in the state and is codified at Public Resources Code (PRC) Section 21000 et seq. CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical or unique archaeological resources.

Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment. An archaeological resource may qualify as an "historical resource" under CEQA. The CEQA Guidelines (Title 14 California Code of Regulations [CCR] Section 15064.5) recognize that an historical resource includes: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record. The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1.

If a lead agency determines that an archaeological site is a historical resource, the provisions of Section 21084.1 of CEQA and Section 15064.5 of the CEQA Guidelines apply. If a project may cause a substantial adverse change (defined as physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired) in the significance of an historical resource, the lead agency must identify potentially feasible measures to mitigate these effects (CEQA Guidelines Sections 15064.5(b)(1), 15064.5(b)(4)).

If an archaeological site does not meet the criteria for a historical resource contained in the CEQA Guidelines, then the site may be treated in accordance with the provisions of Section 21083, which is as a unique archaeological resource. As defined in Section 21083.2 of CEQA a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;

- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or,
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

If an archaeological site meets the criteria for a unique archaeological resource as defined in Section 21083.2, then the site is to be treated in accordance with the provisions of Section 21083.2, which state that if the lead agency determines that a project would have a significant effect on unique archaeological resources, the lead agency may require reasonable efforts be made to permit any or all of these resources to be preserved in place (Section 21083.1(a)). If preservation in place is not feasible, mitigation measures shall be required.

The CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor a historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (CEQA Guidelines Section 15064.5(c)(4)).

4.2.2 CEQA-Plus

The EPA sponsors the SRF Loan Program to provide funding for construction of publicly-owned treatment facilities and water reclamation projects. This funding for capital improvements to wastewater treatment and water recycling facilities is authorized under the federal Clean Water Act. In order to comply with requirements of the SRF Loan Program, which is administered by the SWRCB in California, a CEQA document must fulfill additional requirements known as CEQA-Plus. The CEQA-Plus requirements have been established by the EPA and are intended to supplement the CEQA Guidelines with specific requirements for environmental documents acceptable to the SWRCB when reviewing applications for wastewater treatment facility loans. They are not intended to supersede or replace CEQA Guidelines. The EPA's CEQA-Plus requirements have been incorporated into the SWRCB's *Environmental Review Process Guidelines for SRF Loan Applicants* (2004). The SWRCB's *SRF Guidelines* require that a proposed project comply with Section 106 of the NHPA.

4.2.3 California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from Register are based upon National Register criteria (PRC Section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register.

To be eligible for the California Register, a prehistoric or historic-period property must be significant at the local, state, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined
- eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and,
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as a historic preservation overlay zone.

4.2.4 California Health and Safety Code Section 7050.5

California Health and Safety Code Section 7050.5 requires that in the event human remains are discovered, the County Coroner be contacted to determine the nature of the remains. In the event the remains are determined to be Native American in origin, the Coroner is required to contact the California Native American Heritage Commission (NAHC) within 24 hours to relinquish jurisdiction.

4.2.5 California Public Resources Code Section 5097.98

California PRC Section 5097.98, as amended by Assembly Bill 2641, provides procedures in the event human remains of Native American origin are discovered during project implementation. PRC Section 5097.98 requires that no further disturbances occur in the immediate vicinity of the

discovery, that the discovery is adequately protected according to generally accepted cultural and archaeological standards, and that further activities take into account the possibility of multiple burials. PRC Section 5097.98 further requires the NAHC, upon notification by a County Coroner, designate and notify a Most Likely Descendant (MLD) regarding the discovery of Native American human remains. Once the MLD has been granted access to the site by the landowner and inspected the discovery, the MLD then has 48 hours to provide recommendations to the landowner for the treatment of the human remains and any associated grave goods.

In the event that no descendant is identified, or the descendant fails to make a recommendation for disposition, or if the land owner rejects the recommendation of the descendant, the landowner may, with appropriate dignity, reinter the remains and burial items on the property in a location that will not be subject to further disturbance.

4.2.6 California Public Resources Code Section 21080.3.1

California PRC Section 21080.3.1, as amended by Assembly Bill (AB) 52, requires lead agencies to consider the effects of projects on tribal cultural resources and to conduct consultation with federally and non-federally recognized Native American Tribes early in the environmental planning process and applies specifically to projects for which a Notice of Preparation (NOP) or a notice of Negative Declaration or Mitigated Negative Declaration (MND) will be filed on or after July 1, 2015. The goal is to include California Tribes in determining whether a project may result in a significant impact to tribal cultural resources that may be undocumented or known only to the Tribe and its members and specifies that a project that may cause a substantial adverse change in the significance of a tribal cultural resource is a project that may have a significant effect on the environment. Tribal cultural resources are defined as “sites, features, places, cultural landscapes, sacred places, and objects with cultural value to a California Native American Tribe” that are either included or determined to be eligible for inclusion in the California Register or included in a local register of historical resources (PRC Section 21074 (a)(1)).

Prior to determining whether a Negative Declaration, MND, or Environmental Impact Report (EIR) is prepared for a project, the lead agency must consult with California Native American Tribes, defined as those identified on the contact list maintained by the California Native American Heritage Commission (NAHC), who are traditionally and culturally affiliated with the geographic area of the proposed project, and who have requested such consultation in writing. Consultation may include:

- The type of environmental review necessary
- The significance of tribal cultural resources
- The significance of the project’s impacts on the tribal cultural resources
- Project alternatives or the appropriate measures for preservation
- Recommended mitigation measures

Consultation should be initiated by a lead agency within 14 days of determining that an application for a project is complete or that a decision by a public agency to undertake a project (PRC Section 21080.3.1(d) and (e)). The lead agency shall provide formal notification to the

designated contact of, or a tribal representative of, traditionally and culturally affiliated California Native American Tribes that have requested notice. At minimum, notice should consist of at least one written notification that includes a brief description of the proposed project and its location, the lead agency contact information, and a notification that the California Native American Tribe has 30 days to request consultation pursuant to this section. The lead agency shall begin the consultation process within 30 days of receiving a California Native American Tribe's request for consultation. According to PRC Section 21080.3.2(b), consultation is considered concluded when either the parties agree to measures to mitigate or avoid a significant effect, if a significant effect exists, on a tribal cultural resource, or a party, acting in good faith and after reasonable effort, concludes that mutual agreement cannot be reached.

5. Archival Research

5.1 South Central Coastal Information Center Records Search

A records search for the APE and a ½-mile radius was conducted on June 21, 2016 at the South Central Coastal Information Center (SCCIC), located at California State University, Fullerton. The records search included a review of all recorded cultural resources within a ½-mile radius of the project APE, as well as a review of cultural resource reports on file. The Historic Properties Directory was also examined for any documented historic-period built resources within or adjacent to the project APE. The results of the SCCIC records search are included in **Appendix B**.

5.1.1 Previous Cultural Resources Investigations

A total of 61 cultural resources studies have been conducted within a ½-mile radius of the project APE. Of the 61 previous studies, five studies included a pedestrian survey of portions of the APE, and four included archival research for the APE (**Table 1**). A complete list of the 61 studies located within ½-mile of the project APE is located in Appendix B. Less than 50 percent of the project APE has been included in previous cultural resources surveys.

TABLE 1
PREVIOUS CULTURAL RESOURCES INVESTIGATIONS INCLUDING THE PROJECT APE

Author	SCIC # (OR-)	Title	Year
Mason, Roger D. Ph.D., RPA	3607*	*Cultural Resources Survey Report for the Le Bard Park Extension Project, Huntington Beach, Orange County, California*	2005
Padon, Beth	1836*	*Cultural Resources Review for Groundwater Replenishment System Program EIR/Tier I/EIS, Orange County Water District and County Sanitation Districts of Orange County*	1998
P&D Consultants, Inc.	4087*	*Final Program EIR for the Groundwater Replenishment System*	1999
Historic Resource Associates	4256*	*The Cultural Resources Study of the SCE – Monroe Pacific Nursery project, Metropcs California, LLC Site no. MLAX04188, 20462 Ravenwood Lane, Huntington Beach, Orange County, California 92646*	2012
Ecos Management Criteria, Inc	801*	*Phase II Archaeological Studies Prado Basin and the Lower Santa Ana River*	1985
Michael Brandman Associates	3682	*Direct APE Historic Architectural Assessment for Royal Street Communications, LLC Candidate LA2812A (SCE Lebard Park), SCE Tower M2 T5 Ellis/HB Number 2 South of Ravenwood, Huntington Beach, Orange County, California*	2007
Mason, Roger D.	2033*	*Research Design for Evaluation of Coastal Archaeological Sites in northern Orange County, California*	1987
Statistical Research, Inc	4259*	*Cultural Resources Monitoring Report, Orange County Water District Groundwater Replenishment System, Orange County, California*	2007
Leonard, III, N. Nelson	270*	*Description and Evaluation of Cultural Resources within the U.S. Army Corps*	1975
Unknown City of Huntington Beach	4313*	*The City of Huntington Beach General Plan*	2013

* Indicates study overlaps the Archaeological APE

5.1.2 Previously Recorded Cultural Resources

The records search indicated that nine cultural resources have been previously recorded within a ½-mile radius of the project APE (**Table 2**). No cultural resources have been previously recorded within the project APE. However, two historic-age Southern California Edison (SCE) transmission towers (30-177464 and 30-177612) are located adjacent to the pipeline alignment. Several prehistoric sites have been recorded within the search radius.

TABLE 2
PREVIOUSLY RECORDED CULTURAL RESOURCES WITHIN ½-MILE OF THE PROJECT APE

Primary # (P-30)	Trinomial (CA-ORA-)	Other Designation	Description	Date Recorded
000058	CA-ORA-58	OR-13	Prehistoric Habitation Site	2003; 1975; and 1949
000076	CA-ORA-76	OR-9	Prehistoric Habitation Site with shell midden	1949
000163	CA-ORA-163	Griset Site	Prehistoric archaeological site consisting of shell midden with associated firepits, burials, stone tools, pottery, and charmstones	1966
000165	CA-ORA-165	Banning Extract, Portion A	Prehistoric archaeological site consisting of stone bowl fragments, lithic fragments, and pestels	1960
000576	CA-ORA-576	-	Prehistoric feature consisting of a single human burial	1974
000845	CA-ORA-845	ACE-SAR-8	Prehistoric archaeological site consisting of a single shell midden	1998; 1979
000906	CA-ORA-906	-	Prehistoric archaeological site consisting of a single shell midden	1998; 1979
001740	CA-ORA-1740H	SRS1759-1	Two historic-period trash scatters	2014
177464	-	SCE Transmission Tower M2-T6, Ellis Huntington Beach No.2	Historic-period steel transmission tower	2012
177467	-	William Lamb Elementary School	Historic-period architectural resource consisting of an Educational Building	2013
177612	-	SCE Transmission Tower M2-T5, Ellis Huntington Beach No.2	Historic-period steel transmission tower	2007

5.1.2.1 Resource 30-177464

SCE Transmission Tower M2-T6 (30-177464), consists of one of a pair of SCE high-lead electrical transmission towers that run general north-south tying into the SCE power plant located along the Pacific Coast Highway (PCH) neat Brookhurst Street. The riveted steel, truncated pair of towers were built in 1964 and each stand approximately 121 feet tall, resting on concrete piers, and having three arms with porcelain insulators conducting electricity along wires affixed to each arm. The tower parallels the Santa Ana River flood control channel immediately to the east. This resource was previously evaluated for its historical significance. While the tower appeared to

retain very good integrity of design, materials, location, setting, association, and feeling, this resource was found to be a ubiquitous property type constructed in 1964 to provide additional electrical power to the expanding suburban communities of west Orange County, including Huntington Beach. This resource was not associated with any significant events (Criterion A), nor did it appear to embody distinctive construction techniques or represent the work of a master (Criterion C), and it was recommended not eligible for listing in the National Register (Supernowicz, 2012).

5.1.2.2 Resource 30-177612

SCE Transmission Tower M2-T5 (30-177612) consists of a steel lattice type, 122-foot tall transmission tower. The base of the tower measures 30 feet on each side. The footings are rectangular shaped concrete bases. The transmission tower was constructed with bolted steel L-shaped profiles. The tower was installed by SCE as part of its expansion of electrical service in the Huntington Beach area. The center of the tower base contains a square, concrete block building. The building has a hipped roof with Spanish tile. The transmission tower was constructed as part of the overall development of electrical power in Southern California in the 1940s in the post-World War II period. This resource was previously evaluated for its historical significance. While the tower appeared to retain integrity of design, materials, location, setting, association, feeling, and workmanship, the tower was not associated with any significant events or persons (Criterion A and B), it did not represent distinctive construction techniques or the work of a master (Criterion C), and it was not the principal source of information about this property type and did not have the potential to yield information important in prehistory or history (Criterion D). Thus it was recommended not eligible for the National Register (Crawford, 2007). It has not been previously evaluated for listing in the California Register.

5.2 Historic Map and Aerial Review

Historic maps and aerial photographs were examined in order to provide historical information about the APE and to contribute to an assessment of the APE's archaeological sensitivity. Available maps include: the 1868 U.S. Surveyor General's survey plat map of Townships 5 and 6 South, Range 10 West the 1895 and 1901 Santa Ana 1:62,500 topographic quadrangles; the 1902 Corona 1:125,000 topographic quadrangle; and the 1935 Newport Beach 1:31,600 topographic quadrangles; and 1965 and 1975 Newport Beach 7.5-minute topographic quadrangle. Historic aerial photographs of the APE from 1938, 1953, 1963, 1972, 1994, 2002, 2003, 2004, 2005, 2009, and 2010 were also examined (historicaerials.com, 2016).

The 1868 U.S. Surveyor General's survey plat map shows the APE as being located within Rancho Las Bolsas. The plat map indicates salt marshes within the current location of OCSD Plant No. 2. The available historic maps and aerial photographs indicate that the APE and surrounding area was largely used for agricultural purposes throughout the 20th century, and did not become urbanized until the latter half of the century. The Santa Ana River is shown confined with artificial levees in the 1938 historic aerial photograph. The OCSD Plant No. 1 is visible on the 1953 aerial photograph. The southern portion of OCSD Plant No. 1 was undeveloped until The OCWD GWRS and OCSD Plant No. 2 are not shown on the 1953 aerial. The OCSD Plant No. 2 facility is shown on the 1965 Newport Beach 7.5-minute topographic quadrangle. The

OCWD GWRS facility is shown on the 1972 7.5-minute topographic quadrangle. Based on a detailed review of the 1972 and 2016 aerials of the OCSD Plant No.2, there are structures shown on the 1972 aerial that remain visible on the 2016 aerial photograph.

5.3 Native American Heritage Commission

In 2014, the project environmental documentation, including a cultural resources study, was initiated, and it was put on hold shortly after. However, Native American outreach was completed. The Native American outreach was restarted as part of the project and new project features. The results of previous Native American outreach and current outreach are presented below. Documentation related to Native American outreach is provided in **Appendix C**.

5.3.1 Native American Outreach – 2014

On August 13, 2014, a records search request letter was sent to the NAHC in an effort to determine whether any sacred sites are listed on its Sacred Lands File (SLF) for the project APE. A response was provided on August 22, 2014 that indicated that no Native American cultural resources were identified within a ½-mile radius of the project APE. The NAHC recommended outreach to nine specific tribal authorities who may want to comment on the search request. A letter to the NAHC-listed tribal authorities was mailed on August 26, 2014. Phone calls were made to each of the named tribal members on September 9, 2014 and again on September 18, 2014. Four Tribal representatives responded and provided input (**Table 3**).

5.3.2 Native American Outreach – 2016

On June 2, 2016, a SLF search request letter was sent to the NAHC in an effort to determine whether any sacred sites are listed on SLF for the APE. A response was provided on June 6, 2016 indicating negative results for Native American cultural resources within the project APE. The NAHC recommended outreach to 12 specific tribal authorities who may want to comment on our search request. A letter to the NAHC-listed tribal authorities was mailed on June 20, 2016. Phone calls were made to each of the named tribal members on June 28, 2016. Two Tribal representatives responded and provided input (see Table 3).

5.3.3 AB 52

In August 2016, OCWD sent letters to two Native American representatives who have requested to be informed on activities conducted by the OCWD, under PRC Section 21080.3.1. The OCWD reached out to the Juaneño Band of Mission Indians Acjachemen Nation and Gabrieleno Band of Mission Indians – Kizh Nation. Consultation efforts are currently on-going.

TABLE 3
NATIVE AMERICAN OUTREACH

Contact	Tribe/Organization	Date Letter Mailed	Date of Follow-up Phone Call	Response
2014				
John Tommy Rosas	Tongva Acenstral Territorial Tribal Nation	8/27/2014	9/9/2014	John Tommy Rosas was concerned about project because it is located within a sensitive archaeological area. He recommended testing prior to excavation or full time archaeological and Native American monitoring.
Anthony Morales	Gabrieleno/Tongva San Gabriel Band of Mission	8/28/2014	9/9/2014	Anthony Morales was concerned about the project because of its location along the Santa Ana River. He suggested archaeological and paleontological monitoring.
Sandonne Goad	Gabrielino/Tongva Nation	8/29/2014	9/9/2014	Referred to Sam Dunlap
Robert F Dorame	Gabrielino Tongva Indians of California Tribal Council	8/30/2014	9/9/2014	No Response
	Gabrielino Tongva Indians of California Tribal Council	8/31/2014	9/18/2014	No Response
Bernie Acuna	Gabrielino-Tongva Tribe	9/1/2014	9/10/2014	No Response
Linda Candelaria	Gabrieleno Band of Mission Indians	9/2/2014	9/9/2014	No Response
Andrew Salas	Gabrielino-Tongva Tribe	9/3/2014	9/10/2014	Mr. Salas expressed concerned about the project due to its location in an archaeological sensitive area. Mr. Salas suggested archaeological and Native American monitoring take place to protect and preserve any cultural resources that may be discovered during excavations.
Conrad Acuna	Gabrielino/Tongva Nation	9/4/2014	N/A	No number or email provided.

Contact	Tribe/Organization	Date Letter Mailed	Date of Follow-up Phone Call	Response
Sam Dunlap	Gabrielino/Tongva Nation	9/5/2014	9/10/2014	In an email dated September 11, 2014, Mr. Dunlap expressed concerns about construction and recommended archaeological and Native American monitoring.
2016				
Matias Belardes	Juaneno Band of Mission Indians, Acjachemen Nation	6/20/2016	6/28/2016	See response from Joyce Stanfield-Perry
Adolph Sepulveda	Juaneno Band of Mission Indians	6/20/2016	6/28/2016	A voicemail was left; No response to date
Anthony Morales	Gabrieleno/Tongva Band of Mission Indians	6/20/2016	6/28/2016	Mr. Morales recommended Native American and archaeological monitoring due to the cultural and spiritual sensitivity of the area
Sonia Johnston	Juaneno Band of Mission Indians	6/20/2016	6/28/2016	An email was sent on June 20, 2016. No response to date
Sandonne Goad	Gabrielino/Tongva Nation	6/20/2016	6/28/2016	See response from Sam Dunlap
Bernie Acuna	Gabrielino-Tongva Tribe	6/20/2016	6/28/2016	A voicemail was left; No response to date
Teresa Romero	Juaneno Band of Mission Indians, Acjachemen Nation	6/20/2016	6/28/2016	A voicemail was left; No response to date
Joyce Stanfield-Perry	Juaneno Band of Mission Indians, Acjachemen Nation	6/20/2016	6/28/2016	Ms. Stanfield-Perry recommended Native American and archaeological monitoring during all ground disturbing activities and in the event of a discovery, that the project be stopped and the mitigation plan be re-evaluated.
Robert Dorame	Gabrielino Tongva Indians of California Tribal Council	6/20/2016	6/28/2016	Mr. Dorame requested an emailed version of the letter ; No response to date
Linda Candelaria	Gabrielino-Tongva Tribe	6/20/2016	6/28/2016	A voicemail was left; No response to date
Sam Dunlap	Gabrielino/Tongva Nation	6/20/2016	6/28/2016	Mr. Dunlap requested a PDF copy of the letter be emailed. The PDF copy was emailed on June 20, 2016. No response to date

Contact	Tribe/Organization	Date Letter Mailed	Date of Follow-up Phone Call	Response
Andy Salas	Gabrielino Band of Mission Indians-Kizh Nation	6/20/2016	6/28/2016	Mr. Salas recommended Native American and archaeological monitoring during all ground disturbing activities
Conrad Acuna	Gabrielino-Tongva Tribe	6/20/2016	N/A	No contact information was listed on the NAHC contact list

5.4 Geoarchaeological Review

Chris Lockwood, Ph.D., R.P.A., conducted a desktop geoarchaeological review of the project APE and vicinity in order to evaluate the potential for buried archaeological resources within the APE. The following section presents the results of Dr. Lockwood's analysis.

5.4.1 Geology and Geomorphology

The APE is located in Fountain Valley and Huntington Beach on the Santa Ana coastal plain in Orange County, California. It is immediately west of a stretch of the Santa Ana River that is confined to a flood control channel.

5.4.1.1 OCSD Plant No. 1

The portion of the APE at OCSD Plant No. 1 is situated on a landform dominated by a low-gradient, sandy alluvial fan that merges with marine deposits at the coast. During the late Pleistocene, sea-level was approximately 120 meters below present level, leaving the vicinity of the APE approximately 9.3 miles (15.0 km) inland. Sea level rose throughout the Holocene, attaining near present conditions by approximately 2,000 to 4,000 years ago. Near surface deposits within the portion of the APE where new piping would be installed between OCSD Plant No. 1 and the existing pipeline are mapped as late Holocene to latest Pleistocene alluvial fan deposits (Morton 2004; Morton and Miller 2006), and consist of gravel, sand, and silt transported and deposited by the Santa Ana River. The APE is covered by a paved surface that likely is underlain by fill and required grading prior to construction.

5.4.1.2 OCWD GWRS Facility

The portion of the APE at OCWD GWRS Facility APE is on the same landform as the portion of the APE at OCSD Plant No. 1 and therefore shares similar geomorphological characteristics. The OCWD GWRS Facility APE has been previously developed.

5.4.1.3 OCSD Plant No. 2

The portion of the APE at OCSD Plant No. 2 is on the distal portion of the alluvial fan that also contains the portion of the APE at the OCSD Plant No. 1 and the portion of the APE at the OCWD GWRS Facility. During the late Pleistocene, the portion of the APE at OCSD Plant No. 2 was approximately 5.5 miles (9.0 km) inland. Historically, the APE consisted largely of salt marsh, which would have been at or just above sea level, and was divided by small channels. The area was for celery agriculture in historic times.

The OCSD Plant No. 2 was initially developed for sanitation in 1954, but the parcel, including the APE, was progressively developed towards the north over the next five decades. The APE is covered with a paved surface that is at elevation 3-4 meters above mean sea level (amsl), suggesting the APE contains several meters of fill overlying the native salt marsh deposits. Some of the fill material may have originated as dredge spoils from channelization of the Santa Ana River. Near surface geology the APE is mapped as late Holocene to latest Pleistocene alluvial fan deposits (Morton 2004; Morton and Miller 2006). These deposits consist of gravel, sand, and silt

transported and deposited by the Santa Ana River. To the south of the APE, the OCSD Plant No. 2 site contains unconsolidated eolian dune deposits.

5.4.2 Soils

5.4.2.1 OCSD Plant No. 1

Soils within the portion of the APE at OCSD Plant No. 1 are mapped as Metz loamy sand (NRCS 2016). The Metz soil series consists of very deep, somewhat excessively drained soils. Metz soils are formed in alluvial parent material on floodplains and alluvial fans with slopes of 0 to 15 percent. Since Metz soils are commonly cultivated, the typical soil pedon possesses a shallow plowzone A-horizon (Ap) overlying multiple layers of sandy loam to sand parent material (C1, C2, C3, C4 horizons). The absence of a B-horizon is likely due to the short geological time that has passed since deposition of the last unit of parent material (C1), although agricultural activity has the potential to have partially disrupted B-horizon development. The sequence of several units of parent material (C-horizon) reflects changes over time in the behavior of the Santa Ana River, including periodic overbank flooding. Because the C-horizons represent vertical accretion (i.e., building) on the floodplain, there is a potential that successive fluvial deposits covered and preserved archaeological resources that had accumulated between depositional events. Therefore, Metz soils are considered to have a high sensitivity for buried archaeological resources.

5.4.2.2 OCWD GWRS Facility

Soils within the portion of the APE at the OCWD GWRS Facility are mapped as Hueneme fine sandy loam (NRCS 2016). The Hueneme soils series are formed on alluvial fans in stratified alluvium derived from sedimentary rock. The typical soil pedon consists of a plowed A-horizon (Ap1, Ap2) developed at the top of relatively unaltered alluvial parent material (C1 through C5) extending more than 70 inches deep. The absence of a B-horizon is likely due to the short geological time that has passed since deposition of parent material, although agricultural activity has the potential to have disrupted the development of a recognizable B-horizon as well. The sequence of several units of parent material (C-horizon) reflects changes over time in the behavior of the Santa Ana River, including periodic overbank flooding. Because the C-horizons represent vertical accretion (i.e., building) on the floodplain, there is a potential that successive fluvial deposits covered and preserved archaeological resources that had accumulated between depositional events. Therefore, Hueneme soils are considered to have a high sensitivity for buried archaeological resources.

5.4.2.3 OCSD Plant No. 2

Soils within the portion of the APE at OCSD Plant No. 2 are mapped primarily as Bolsa silt loam (NRCS 2016). Bolsa series soils are deep, somewhat poorly drained soils developed in mixed alluvium parent material on flood plains and basins. The typical soil pedon consists of a plowed A-horizon (Ap1, Ap2) developed at the top of relatively unaltered alluvial parent material (C1 through C6) extending more than 69 inches deep. The absence of a B-horizon is likely due to the short geological time that has passed since deposition of the parent material, although agricultural activity has the potential to have disrupted the development of a recognizable B-horizon as well. The A-horizon in Bolsa soils ranges from sandy loam to silty clay loam, while the C-horizon is mainly silt loam and silty clay loam but may contain thin strata of sandier material (USDA 1997).

Significantly, many Bolsa soil pedons contain buried A-horizons (paleosols). These buried A-horizons represent periods of time in the past during which landform conditions were relatively stable, and during which deposition and erosion were sufficiently balanced to allow for development and retention of a soil weathering profile. From an archaeological perspective, periods of landform stability, such as those signified by buried A-horizons, should be correlated with the accumulation and preservation of cultural remains. Therefore, Bolsa soils are considered to have a high sensitivity for buried archaeological resources.

5.4.3 Archaeological Potential

Although paved and filled, the portion of the APE at the OCSD Plant No. 2 appears to retain high sensitivity for buried archeological resources. During the latest Pleistocene and Holocene, the geomorphic setting of the portion of the APE at the OCSD Plant No. 2 changed from inland to coastal, and rising sea level resulted in fluvial deposition capable of burying archaeological resources. The portion of the APE at the OCSD Plant No. 2 was largely salt marsh into the early 20th century, but this is an area that would have offered important resources. Owing to its marshy environment, this area may not have been favored for any substantial occupation, but nonetheless is likely to have been visited for resource procurement and could contain artifacts associated with those activities. Additionally, the saturated conditions offered within this setting may have aided in the preservation of relatively rare organic artifacts.

Although paved and filled, the portion of the APE where new piping would be installed between OCSD Plant No. 1 and the existing pipeline appears to retain high sensitivity for buried archaeological resources. During the latest Pleistocene and Holocene rising sea levels reduced fluvial downcutting and increased deposition capable of burying archaeological resources. Historically, the APE was north of a large salt marsh, an area that would have offered important resources. Owing to its proximity to both the salt marsh and the Santa Ana River, the APE may have been selected for occupation, and could contain buried artifacts and features associated with such use.

6. Paleontological Records Search

Dr. Samuel A. McLeod, Ph.D., of the Natural History Museum of Los Angeles County, Vertebrate Paleontology Section, conducted a thorough search on June 16, 2016 of the paleontology collection records for the locality and specimen data for the proposed project. No vertebrate fossil localities lie within the project APE; however, there are localities nearby from the same sedimentary units that may occur subsurface in the project APE. The closest vertebrate fossil locality from Quaternary Terrace deposits is LACM 7366. LACM 7366 produced specimens of marine, freshwater, and terrestrial specimens including leopark shark, *Triakis*, three-spined stickleback, *Gasterosteus*, garter snake, *Thamnophis*, desert shrew, *Notiosorex*, and most prominently, pocket gopher, *Thomomys*. A series of fossil localities, LACM 7422-7425, produced fossil specimens of mammoth, *Mammuthus*, bison, *Bison*, and horse, *Equus*, from Alluvium or dune deposits. The closest vertebrate fossil locality from Quaternary deposits is LACM 6370, which produced a specimen of a fossil horse, *Equus*. Fossil locality LACM 3267 produced a specimen of a fossil elephant, *Proboscidea* in Quaternary deposits. Fossil locality LACM 4219 produced fossil specimens of turtle, *Chelonia*, and camel, *Camelidae*. Vertebrate fossil locality LACM 1339produced fossil specimens of mammoth, *Mammuthus*, and camel, *Camelidae*, bones from sands approximately 15 feet below the top of the mesa that is overlain by shell bearing silts and sands.

The entire APE has surface deposits of younger Quaternary Alluvium, derived as fluvial deposits from the Santa Ana River to the east of the project APE. No fossil vertebrate localities are located nearby these deposits, and they are unlikely to contain significant vertebrate fossils, at least in the uppermost layers. However, mapped exposures of marine Quaternary Terrace deposits are located in the vicinity of the APE. These or other older Quaternary deposits may occur in the project APE at unknown depth. There is a low potential to uncover significant vertebrate fossil remains during surface grading or shallow excavations in the APE. However, excavations that extend down into the older Quaternary deposits may encounter significant fossil vertebrate specimens.

7. Cultural Resources Survey and Results

A cultural resources pedestrian survey of the APE was conducted on June 16, 2016 by Arabesque Said-Abdelwahed to identify the presence of surface archaeological materials. Intensive-level survey was conducted of areas with greater surface visibility with intervals spaced at 10 meter. Survey of the OCWD GWRS Facility showed that the entire project APE has been previously developed and is completely paved. The buildings that exist on the OCWD site were constructed after 1972. No cultural resources were observed during the survey at the OCWD GWRS Facility.

A pedestrian survey was conducted on June 16, 2016 of the existing pipeline alignment for rehabilitation is located along an OCSD easement corridor that extends west of the Santa Ana River levee. The pipe would connect to existing facilities at the OCSD Plant No. 1 and proposed facilities in OCSD Plant No. 2. The soils were previously disturbed during placement of the existing pipeline located 5 feet below the existing ground surface. The corridor consists of fill material and is elevated approximately 2-4-feet above natural grade (OCWD, pers. comm.). No cultural resources were observed during the survey of the existing pipeline route. Cultural resources were not observed during the survey of the pipe connection locations to existing facilities.

New facilities (Flow Equalization Control/Meter, Flow Equalization Pump Station, OCSD Pipeline Connection, pump station, bypass pipeline, and headgates) would be constructed at the OCSD Plant No. 2. The bypass pipeline, headgates, Flow Equalization Control/Meter, and proposed pump station locations are currently paved and natural ground was not visible. The OCSD Plant No. 2 consists of existing tanks and waste water treatment buildings. Portions of the proposed location for the Flow Equalization Pump Station and OCSD Pipeline Connection are unpaved and were surveyed in regular intervals. No archaeological or historic built resources were observed within the APE. Potential historic-period buildings/structures were noted at the OCSD Plant No. 2 outside of the APE.

A photographic narrative of the survey results can be found in the attached Appendix D.

8. Conclusions and Recommendations

8.1 Archaeological Resources

As a result of this study, no archaeological resources were identified within the APE. However, based on the results of study, the project APE should be considered highly sensitive for subsurface archaeological resources. Native American respondents indicated sensitivity for archaeological resources in the APE and surrounding area given the proximity to the Santa Ana River corridor. In addition, the geoarchaeological review indicates that the portion of the APE within OCSD Plant No. 2 was largely salt marsh into the early 20th century and would have offered important resources. Owing to its marshy environment, this area may not have been favored for any substantial occupation, but nonetheless is likely to have been visited for resource procurement and could contain artifacts associated with those activities. Additionally, the saturated conditions offered within this setting may have aided in the preservation of relatively rare organic artifacts. Since the project includes ground-disturbing activities, there is a potential for discovery of subsurface archaeological deposits that could qualify as historic properties under Section 106 of the NHPA and/or historical or unique archaeological resources under CEQA. This potential impact to unknown archaeological resources is considered significant. The following mitigation measures are recommended to ensure that the project would result in No Historic Properties Affected under Section 106 of the NHPA and less than significant impacts to historical or unique archaeological resources under CEQA.

1. **Construction Worker Cultural Resources Sensitivity Training:** Prior to earth moving activities, a qualified archaeologist meeting the Secretary of the Interior's Professional Qualifications Standards for archaeology (U.S. Department of the Interior, 2008) shall conduct cultural resources sensitivity training for all construction personnel. Construction personnel shall be informed of the types of cultural resources that may be encountered, and of the proper procedures to be enacted in the event of an inadvertent discovery of archaeological resources or human remains. OCWD shall ensure that construction personnel are made available for and attend the training and retain documentation demonstrating attendance.

2. **Archaeological Monitoring:** Prior to the start of any ground-disturbing activities, OCWD shall retain an archaeological monitor to observe all ground-disturbing activities. Archaeological monitoring shall be conducted by a monitor familiar with the types of archaeological resources that could be encountered and shall work under the direct supervision of the qualified archaeologist. Monitoring may be reduced or discontinued by the qualified archaeologist, in coordination with OCWD, based on observations of subsurface soil stratigraphy and/or the presence of older C-horizon deposits. The monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of a discovery until the qualified archaeologist has evaluated the discovery and determined appropriate treatment. The monitor shall keep daily logs detailing the types of activities and soils observed, and any discoveries. After monitoring has been completed, the qualified archaeologist shall prepare a monitoring report that details the results of

monitoring. The report shall be submitted to OCWD, SCCIC, and any Native American groups who request a copy.

3. **Native American Monitoring:** Prior to issuance of a grading permit and prior to start of any ground-disturbing activities, OCWD shall retain a Native American monitor to observe all ground-disturbing activities. The monitor shall be obtained from a Tribe that is traditionally and culturally affiliated with the area, according the NAHC list. The monitor shall be empowered to halt or redirect ground-disturbing activities away from the vicinity of a discovery until the qualified archaeologist has evaluated the discovery and determined appropriate treatment. Monitoring may be reduced or discontinued, in coordination with OCWD and the qualified archaeologist, based on observations of subsurface soil stratigraphy and/or the presence of older C-horizon deposits.

4. **Archaeological Discoveries:** In the event of the discovery of archaeological materials, OCWD or its contractor shall immediately cease all work activities in the area (within approximately 100 feet) of the discovery until it can be evaluated by the qualified archaeologist. Prehistoric archaeological materials might include obsidian and chert flaked-stone tools (e.g., projectile points, knives, scrapers) or tool-making debris; culturally darkened soil ("midden") containing heat-affected rocks, artifacts, or shellfish remains; and stone milling equipment (e.g., mortars, pestles, handstones, or milling slabs); and battered stone tools, such as hammerstones and pitted stones. Historic-period materials might include stone or concrete footings and walls; filled wells or privies; and deposits of metal, glass, and/or ceramic refuse. Construction shall not resume until the qualified archaeologist has conferred with OCWD on the significance of the resource. SWRCB shall be afforded the opportunity to determine whether the discovery requires addressing under Section 106 Post-Review Discoveries provisions provided in 36 CFR 800.13.

   If it is determined that the discovered archaeological resource constitutes a historic property under Section 106 of the NHPA or a historical resource under CEQA, avoidance and preservation in place shall be the preferred manner of mitigation. Preservation in place maintains the important relationship between artifacts and their archaeological context and also serves to avoid conflict with traditional and religious values of groups who may ascribe meaning to the resource. Preservation in place may be accomplished by, but is not limited to, avoidance, incorporating the resource into open space, capping, or deeding the site into a permanent conservation easement. In the event that preservation in place is demonstrated to be infeasible and data recovery through excavation is the only feasible mitigation available, an Archaeological Resources Treatment Plan that provides for the adequate recovery of the scientifically consequential information contained in the archaeological resource shall be prepared and implemented by the qualified archaeologist in consultation with OCWD. The appropriate Native American representatives shall be consulted in determining treatment for prehistoric or Native American resources to ensure cultural values ascribed to the resource, beyond that which is scientifically important, are considered.

5. **Human Remains:** If human remains are encountered, OCWD or its contractor shall halt work in the vicinity (within 100 feet) of the find and contact the Orange County Coroner in accordance with PRC Section 5097.98 and Health and Safety Code Section 7050.5. If the County Coroner determines that the remains are Native American, the NAHC will be notified in accordance with Health and Safety Code Section 7050.5, subdivision (c), and PRC Section 5097.98. The NAHC will designate an MLD for the remains per PRC Section 5097.98. Until the landowner has conferred with the MLD, OCWD shall ensure that the immediate vicinity where the discovery occurred is not disturbed by further activity, is adequately protected according to generally accepted cultural or archaeological standards or practices, and that further activities take into account the possibility of multiple burials.

8.2 Historic Built Resources

As a result of this study, two historic built resources (30-177464 – SCE Transmission Tower M2-T6 Ellis-Huntington Beach No. 2 and 30-177612 – SCE Transmission Tower M2-T5 Ellis/HB No. 2) were identified adjacent to the existing pipeline portion of the project APE. Both resources were previously recommended not eligible for the National Register and therefore do not qualify as historic properties under Section 106 of the NHPA. Neither resource has been previously evaluated for listing in the California Register; however, for the same reasons outlined in Section 5.1.2, these resources do not appear to meet the criteria for listing in the California Register and they do not qualify as historical resources under CEQA. No further work or treatment is recommended for these two resources.

Two potential historic built resources, OCSD Plant No. 1 and OCSD Plant No. 2, were identified as a result of this study. Both plants were initially constructed more than 45 years ago[1], although none of the historic-age buildings/structures appear to be within the APE[2]. Project-related activities OCSD Plant No. 1 will be limited to installation of a below-ground piping to connect to existing facilities. No above-ground facilities would be constructed at this location and existing potential historic buildings/structures are not located near the pipeline. Therefore, the project does not have the potential to result in a significant impact to any potential historic resources on OCSD Plant No. 1. Since above-ground buildings/structures are proposed at OSCD Plant No. 2, a historical evaluation should be prepared for OCSD Plant No. 2.

8.3 Paleontological Resources

Based on the results of the paleontological database search, there are no known fossil localities in the APE and there is a low potential to uncover significant vertebrate fossil remains during surface grading or shallow excavations in the APE. However, excavations that extend down into the older Quaternary deposits may encounter significant fossil vertebrate specimens. Since the project includes ground-disturbing activities, there is a potential for discovery of fossils that may

1 The California OHP recommends including all resources over 45 years of age in the planning process given the lag time between environmental documentation and project implementation. Generally, resources more than 50 years of age require evaluation for listing in the National Register and California Register to assess impacts to historic properties under Section 106 of the NHPA and historical resources under CEQA.

2 The project may require creation of a separate architectural APE in order to adequately address direct/indirect effects to historic built resources.

be considered significant paleontological resources. This potential impact to unknown paleontological resources is considered significant. The following mitigation measures are recommended to ensure that the project would result in less than significant impacts to unique paleontological resources under CEQA.

1. **Retention of a Qualified Paleontologist:** Prior to the start of any ground-disturbing activities, OCWD shall retain a qualified paleontologist meeting the Society of Vertebrate Paleontology (SVP) Standards (SVP, 2010). The qualified paleontologist shall contribute to any construction worker cultural resources sensitivity training either in person or via a training module provided to the qualified archaeologist. The training session shall focus on the recognition of the types of paleontological resources that could be encountered within the project site and the procedures to be followed if they are found. The qualified paleontologist shall also conduct periodic spot checks in order to ascertain when older deposits are encountered and where monitoring shall be required.

2. **Paleontological Monitoring:** Prior to the start of any ground-disturbing activities, OCWD shall retain a paleontological monitor to observe all ground-disturbing activities within older Quaternary deposits. Paleontological resources monitoring shall be performed by a qualified paleontological monitor, or cross-trained archaeological/paleontological monitor, under the direction of the qualified paleontologist. The monitor shall have the authority to temporarily halt or divert work away from exposed fossils in order to recover the fossil specimens. Monitoring may be reduced or discontinued by the qualified paleontologist, in coordination with OCWD, based on observations of subsurface soil stratigraphy and/or other factors and if the qualified paleontologist determines that the possibility of encountering fossiliferous deposits is low. The monitor shall prepare daily logs detailing the types of activities and soils observed, and any discoveries. The qualified paleontologist shall prepare a final monitoring a report to be submitted to OCWD and filed with the local repository. Any recovered significant fossils shall be curated at an accredited facility with retrievable storage.

3. **Paleontological Discoveries:** If construction or other project personnel discover any potential fossils during construction, regardless of the depth or presence of a monitor, work in the vicinity (within 100 feet) of the find shall cease until the qualified paleontologist has assessed the discovery and made recommendations as to the appropriate treatment.

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APPENDIX A
Resumes

Candace R. Ehringer, RPA

Senior Cultural Resources Specialist

EDUCATION

M.A., Anthropology, California State University, Northridge

B.A., Anthropology, East Carolina University

18 YEARS EXPERIENCE

AREAS OF EXCELLENCE

CEQA, NEPA, and Section 106 proficient

Manages multi-disciplinary CRM projects

Strong historic resources research skills

QUALIFICATIONS

Exceeds Secretary of the Interior's Standards

CA State BLM Permitted

CONTINUING EDUCATION

AEP Advanced CEQA Workshop, 2011

ACHP Section 106 Essentials training course, 2010

Riverside County certification course, 2009 and 2011

PROFESSIONAL PAPERS & PRESENTATIONS

Ehringer, C. 2014 Dead Men Do Wear Plaid: Garments and Notions for City Cemetery, Los Angeles, California. Oral paper presentation at the Society for Historical Archaeology 47th Annual Meeting, Quebec City, Quebec, Canada.

Candace is a cultural resources project manager with 18 years of experience working across California. Candace manages multi-disciplinary cultural resources projects which include archaeological, historic architectural, and paleontological resources components. She is adept at building teams of specialists from these resource areas that are uniquely qualified for the particular project at hand and has brought hundreds of projects to successful completion for both public agency and private development clients. Candace provides technical and compliance oversight for projects involving archaeological survey, evaluation, and treatment; built environment studies including the documentation and evaluation of buildings, structures, and districts; and paleontological resources survey and sensitivity assessments. She is proficient in the areas of CEQA, NEPA, and Section 106 and routinely provides planning and strategic guidance to clients within the larger scope of state and federal regulations.

Relevant Experience

Los Angeles Unified School District, Historic Resources Evaluation of Five Campuses, Los Angeles, CA. *Project Manager*. ESA provided historic resources services in support of proposed improvements to George Washington Carver Middle School, Graham Elementary School, Morris K. Hamasaki Elementary School, Van Nuys Elementary School, and West Vernon Elementary School. Candace managed the preparation of historic resources evaluations of the five campuses. ESA identified Van Nuys Elementary School and West Vernon Elementary School as eligible.

California Department of Water Resources, California Aqueduct Bridges Seismic Retrofit, Kern and San Bernardino Counties, CA. *Project Manager*. Candace managed the completion of an Archaeological Survey Report, a Historical Resources Evaluation Report, a Historic Properties Survey Report, and Finding of Effect document in coordination with the California Department of Transportation (Caltrans) and the California Department of Water Resources (DWR). DWR proposes to remedy structural seismic deficiencies for six existing bridges spanning the California Aqueduct. The California Aqueduct was determined eligible for listing in the National Register under Criteria A and C for its association with irrigation and agricultural development of California and water conveyance engineering and design. The six bridges are considered contributors to the aqueduct system.

Cooper Molera Adobe, Monterey County, CA. *Project Manager*. The National Trust for Historic Preservation has spearheaded a shared use program that aims to create a revitalized Cooper Molera Adobe. The intent is to balance compelling historic interpretation and education programs with appropriate and complementary commercial uses. Candace co-authored the Archaeological Research Design and

Treatment Plan (ARDTP) and implemented archaeological resources testing and data recovery at the adobe.

California Department of Water Resources, Cantua Creek Stream Group Improvements Project, Fresno County, CA. *Project Manager*. The California Department of Water Resources (DWR) proposes to implement the Cantua Creek Stream Group (CCSG) Improvements Project (Project). The CCSG is composed of five major creeks: Arroyo Hondo, Cantua, Salt, Martinez, and Domengine. The CCSG drains a portion of the Coast Range, located west of the Project area. Presently, floodwaters from the CCSG terminate at four locations (Basins 1-4) along an approximately 13-mile stretch of the San Luis Canal; Martinez Creek flows into Salt Creek about 3 miles upstream of the San Luis Canal. Candace managed the preparation of a Cultural Resource Inventory and Evaluation Report, Finding of Effect, and Paleontological Resources Report in compliance with Section 106 of the National Historic Preservation Act and CEQA. The Bureau of Reclamation was the lead federal agency.

Monterey Regional Desalinization Project, Monterey County, CA. *Senior Cultural Resources Specialist.* In support of the NEPA phase of this project, Candace compiled information on cultural resources located along the proposed alternative routes and authored a technical memo providing recommendations for the route that would pose the least impact to known resources. She has also conducted several surveys of pipeline routes and potential staging areas. The Bureau of Reclamation is the lead federal agency for the project.

Los Angeles Unified School District, Historic Architectural Review of Twelve Campuses, Los Angeles, CA. *Project Manager*. ESA provided historic resources services in support of proposed improvements to 12 campuses. Candace conducted site visits and oversaw the preparation of letter reports assessing the improvements for compliance with the Secretary of the Interior's Standards.

City of Santa Barbara, Mission Creek Lagoon and Laguna Channel Restoration Project, Santa Barbara County, CA. *Project Manager*. Candace managed the preparation of a technical memorandum documenting a preliminary cultural resource study and conducted the field survey. The study identified several cultural resources that could pose a regulatory constraint on the project, including 18 historic built resources. The area was also identified as sensitive for archaeological resources. ESA is currently assisting the City of Santa Barbara identify a design alternative within the Project area that is economically feasible and meets the multiple objectives of flood control, water quality improvement, public safety and access, and habitat restoration.

DWR, Hyatt River Outlet Facility Life Extension Study, Oroville, CA. *Project Manager*. The Hyatt River Outlet Facility Life Extension Study Project involves the construction of outlet tunnels at the Edward Hyatt Power Plant to replace/repair the River outlet. The Edward Hyatt Power Plant (1963-1969) and the Oroville Dam (1961-1967) have been evaluated and appear eligible for listing in the National Register of Historic Places. Candace managed the preparation of a technical reportdocument which analyzed the existing records/data, assessed potential effects to historic resources by the proposed activities, and concluded with a finding of effect.

Arabesque Said-Abdelwahed, MPP

Senior Associate

EDUCATION

Master of Public Policy, University of California, Irvine

B.A., Anthropology, University of California, Riverside

8 YEARS EXPERIENCE

PROFESSIONAL AFFILIATIONS

Association of Environmental Professionals

Register of Professional Archaeologists

California Department of Toxic Substances Control Registered Environmental Assessor

Arabesque has professional experience specializing in CEQA and NEPA-level environmental documentation processes with a technical background in cultural resources management, hazards and hazardous materials. She has focused on management and preparation of cultural resources literature reviews, archaeological surveys, archaeological site testing, and data collection. She has also authored cultural resources reports required for environmental analysis. Arabesque also brings significant experience performing Phase I environmental site assessments/environmental site reports. As an ASTM-trained environmental site assessment professional, she has conducted dozens of Phase I ESAs in California. She has managed the preparation of Initial Studies and assisted in the preparation of Environmental Impact Reports.

Relevant Experience

County of Orange, Cerritos Avenue Single-family residential project Initial Study Mitigated Negative Declaration, *Deputy Project Manager.* Arabesque was the assistant project manager for the preparation of an Initial Study Mitigated Negative Declaration for a proposed 40-unit single-family residential project in unincorporated Orange County. Arabesque was responsible for analysis and content editing.

City of Santa Ana, Heritage Mixed-Use Development project EIR, *Senior Associate.* Arabesque conducted analysis and prepared the cultural resources and hazards and hazardous materials sections of the Environmental Impact Report.

Indian Wells valley Land Use Management Plan, Kern County, CA, *Senior Associate.* ESA prepared a Program Environmental Impact Report (PEIR) for the Indian Wells Valley Land Use Management Plan. This plan would evaluate the existing and potential General Plan land use designation changes to support a water balanced approach to land use planning. Arabesque prepared the hazards and hazardous materials section of the EIR.

Sweetwater Authority, Richard A. Reynolds Desalination Plant Phase 2 Expansion Solar Project MND, Chula Vista, CA, *Deputy Project Manager.* Arabesque was responsible for analysis and preparation of the Initial Study Mitigated Negative Declaration including content editing, schedule maintenance, staff coordination, and budget tracking. The Mitigated Negative Declaration was prepared to address impacts associated with the installation of a solar photovoltaic project on an existing desalination facility.

City of Baldwin Park Specific Plan EIR, Baldwin Park, CA, *Senior Associate.* ESA

will be providing CEQA documentation and environmental planning services associated with the Baldwin Park Transit Oriented District (TOD) Specific Plan for the Downtown Area of Baldwin Park. This project aims to encourage transit-oriented development, promote active transportation, reduce vehicle miles traveled, and streamline the environmental review process for future projects.

Department of Toxic Substances Control, Santa Susana Field Laboratory EIR, Ventura County, CA, *Deputy Project Manager.* Arabesque conducted analysis and prepared the utilities section of the PEIR for the Santa Susana Field Laboratory. She also coordinated the preparation of figures for the EIR.

City of Corona Department of Water and Power, Water Facilities Project, Riverside County, CA. *Assistant Project Manager.* Arabesque assisted in the preparation of the Initial Study and technical reports for the proposed water production wells, pump houses, linear wells water transmission main and water treatment facility.

City of Santa Ana Planning and Building Agency, Park View at Town and Country Manor Project, Orange County, CA. *Assistant Project Manager.* Arabesque prepared the Final EIR, MMRP, and Findings of Fact for the proposed multi-story building at the existing Town and Country Manor "Continuing Care Residential Community." Arabesque also supported the Project Director at two Planning Commission meetings and City Council hearing.

The Shopoff Group, L.P. 333 North Prairie Avenue Project, City of Inglewood, Los Angeles County, CA. *Assistant Project Manager.* Arabesque assisted in the preparation of EIR sections. Arabesque managed the preparation of the Cultural Resources Assessment for the project area.

City of Wildomar, Riverside County, CA. *Assistant Project Manager*. Arabesque assisted in the preparation of the EIR for the proposed residential project on approximately 9-acres in the City of Wildomar. Arabesque prepared the project description and impact sections including cultural resources, geology and soils, hazards, land use, population and housing.

County of Riverside, Cabazon II Outlet Expansion Project, Riverside County, CA. *Project Manager*. Arabesque coordinated the preparation of an Initial Study for the proposed outlet mall expansion project in the community of Cabazon, CA. Arabesque also coordinated the preparation of technical studies including a Biological Habitat Assessment and Phase I Cultural Resources Assessment.

Vanessa N. Ortiz, MA, RPA

Cultural Resources Specialist

EDUCATION

M.A., Anthropology emphasis Archaeology, California State University, Los Angeles

B.A. Anthropology, California State University, Los Angeles

7 YEARS EXPERIENCE

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists

Society for American Archaeology

California Cultural Resources Preservation Alliance

Society for California Archaeology

Lambda Alpha Honors Society

Vanessa is an archaeologist with over seven years of documentation, records searches, survey, excavation, and monitoring experience. She is cross trained in archaeology and paleontology. She has worked extensively throughout California, with particular experience in the context of the Mojave and California Great Basin, prehistoric food processing sites, and historic artifacts.

Relevant Experience

City of Beverly Hills Metro Purple Line Extension, Beverly Hills, CA. *Compliance Coordinator.* ESA is retained by the City of Beverly Hills to conduct general compliance monitoring during the advanced utilities relocation phase of construction for the segment of the Metro Purple Line Extension Project located in the City of Beverly Hills. Vanessa oversees ESA monitors, prepare weekly reports and 3-week look-ahead projections based on estimated contractor planned activities. As needed, she issues violations in the event a non-compliance issue is identified. ESA's primary objective is to assist contractors in avoiding non-compliance issues through thorough observation and open communication.

Ballona Wetland Restoration, Playa Del Rey, CA. *Archaeologist.* As part of the development of the restoration plan for the Ballona Wetlands, the ESA project team characterized existing conditions that included water and sediment sampling and analysis. The water and sediment quality sampling was performed to develop and evaluate potential restoration alternatives, and to develop a conceptual plan. The ESA project team compiled existing data on and conducted additional sampling for water and sediment to assess potential effects on the proposed wetland restoration habitat from the use of urban runoff and tidal in-flow from Ballona Creek. These data were used to complete a baseline report and restoration alternatives assessment. Vanessa assisted in survey, data recovery and artifact analysis.

Los Angeles Department of Water and Power (LADWP), Path 46 Clearance Surveys, San Bernardino, CA. *Archaeologist*. ESA has been tasked by LADWP to conduct required surveys for the Path 46 Transmission Line Clearances Project. The project's objective is to restore required code clearances to the transmission conductors, which will be accomplished by grading the ground surface underneath the transmission lines to achieve required height consistency. The work is being conducted in compliance with BLM guidelines and federal laws and statutes. Biological, archaeological, and paleontological resource surveys are currently being conducted for the 77 proposed grading areas, staging areas, and roads. Pending reports will document results of the surveys and provide recommendations for minimally invasive access areas, staging areas, and soil distribution. Vanessa provided field surveys and documentation of archaeological sites for submission to the California State Parks.

Los Angeles Department of Water and Power (LADWP), Scattergood Olympic Transmission Line (SOTL) Cultural Resources Monitoring, Los Angeles, CA. *Archaeologist*. LADWP is constructing and will operate approximately 11.4 miles of new 230 kilovolt (kv) underground transmission line. LADWP installed 55 vaults and underground conduit for the SOTL Project. ESA provided cultural resources services, including archaeological, Native American, and paleontological monitoring, to fulfill the requirements of the Project EIR mitigation measures for cultural resources. Reports documenting the monitoring findings were submitted at the end of the project. Vanessa provided oversight and scheduling to monitors and assisted in preparing the final report.

California High Speed Rail, Fresno, CA. *Archaeological Monitor.* ESA was retained as a sub-consultant to the Tutor Perini Zachary Parsons Joint Venture. The project consisted of pre-construction surveys for biological and cultural resources, compliance monitoring during construction, and compliance tracking and reporting. Approximately 29 miles in length, the project also included both biological and cultural resources such as the historic Chinatown in downtown Fresno, vernal pool and seasonal wetland habitat and crossings of the San Joaquin and Fresno Rivers. Vanessa provided archaeological monitoring for the Project during construction.

Los Angeles Department of Water and Power, La Kretz Innovation Campus Project, Los Angeles, CA. *Archaeological Monitor and Lab Technician.* ESA provided archaeological monitoring in connection with the La Kretz Innovation Campus Project located in downtown Los Angeles. ESA conducted construction worker cultural resources sensitivity training; archaeological monitoring; and prepared a monitoring report. The Project involved the rehabilitation of the 61,000-square-foot building located at 518-524 Colyton Street, the demolition of the building located at 537-551 Hewitt Street, and the construction of an open space public plaza, and surface parking lot, and involved compliance with Section 106 of the National Historic Preservation Act and consultation with the California State Historic Preservation Officer. Vanessa provided monitoring for the duration of the Project as well as a lab technician during the curation of the artifacts recovered from the Project and co-authored the final cultural report.

Los Angeles Department of Water and Power (LADWP), Silver Lake Reservoir Complex (SLRC) Storage Replacement and River Supply Conduit 1A, Los Angeles County, CA. *Archaeological and Paleontological Monitor*. ESA is providing archaeological and paleontological monitoring for SLRC Storage Replacement and River Supply Conduit 1A Project. As part of this task, ESA conducted construction worker cultural resources sensitivity training and archaeological and paleontological monitoring. A final monitoring report will be prepared at the end of construction. Vanessa was the field monitor on this project.

APPENDIX B

SCCIC Records Search Results
(*Confidential, Bound Separately*)

APPENDIX C

Native American Correspondence

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Section 106 Cultural Resources Assessment for the Groundwater Replenishment System Final Expansion

County: Orange

USGS Quadrangle Name: Newport Beach
Townships: 5 and 6 South --- Range: 10 West Section(s): Multiple

Company: Environmental Science Associates

Contact Person: Arabesque Said, MPP

Street Address: 2121 Alton Parkway, Suite 100, Irvine, CA 92606

Cell 951.310.7031

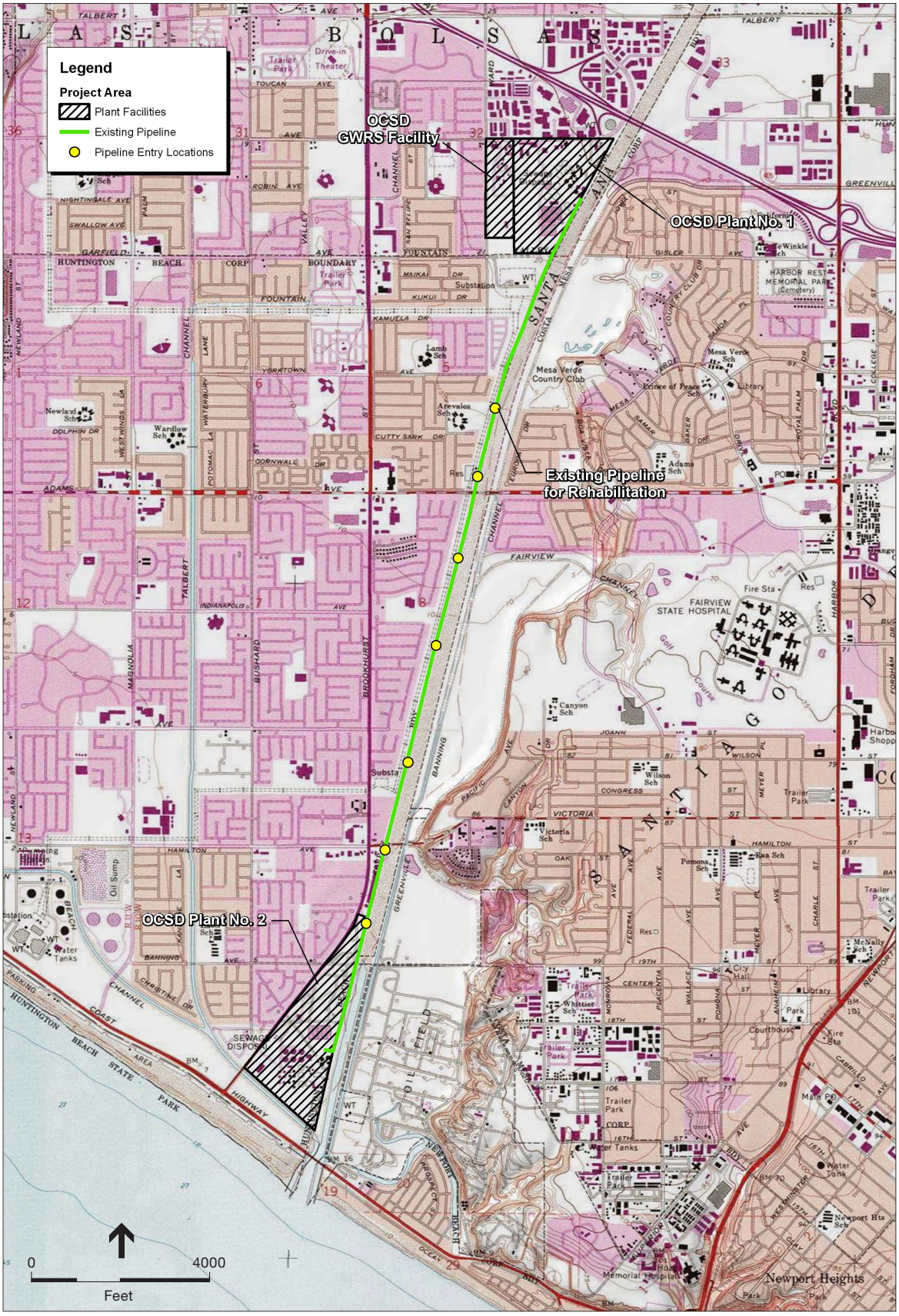
Office Phone: 213.599.4300

Fax: 213.599.4301

Email as needed: aabdelwahed@esassoc.com

SEE ATTACHED MAP

The GWRS Final Expansion Project involves five construction activities; 1) Increasing microfiltration capacity, 2) Increasing reverse osmosis treatment capacity, 3) Increasing ultraviolet treatment capacity, 4) final product water and 5) construction of a pump station, 6) construction of a flow equalization tank and associated appurtenances, and 7) conversion of existing gravity pipeline to a pressurized pipeline. The project is located in multiple sections of Townships 5 and 6 South; Range 10 West of the Newport Beach, CA 7.5' United States Geological Survey Topographic Quadrangle Map.

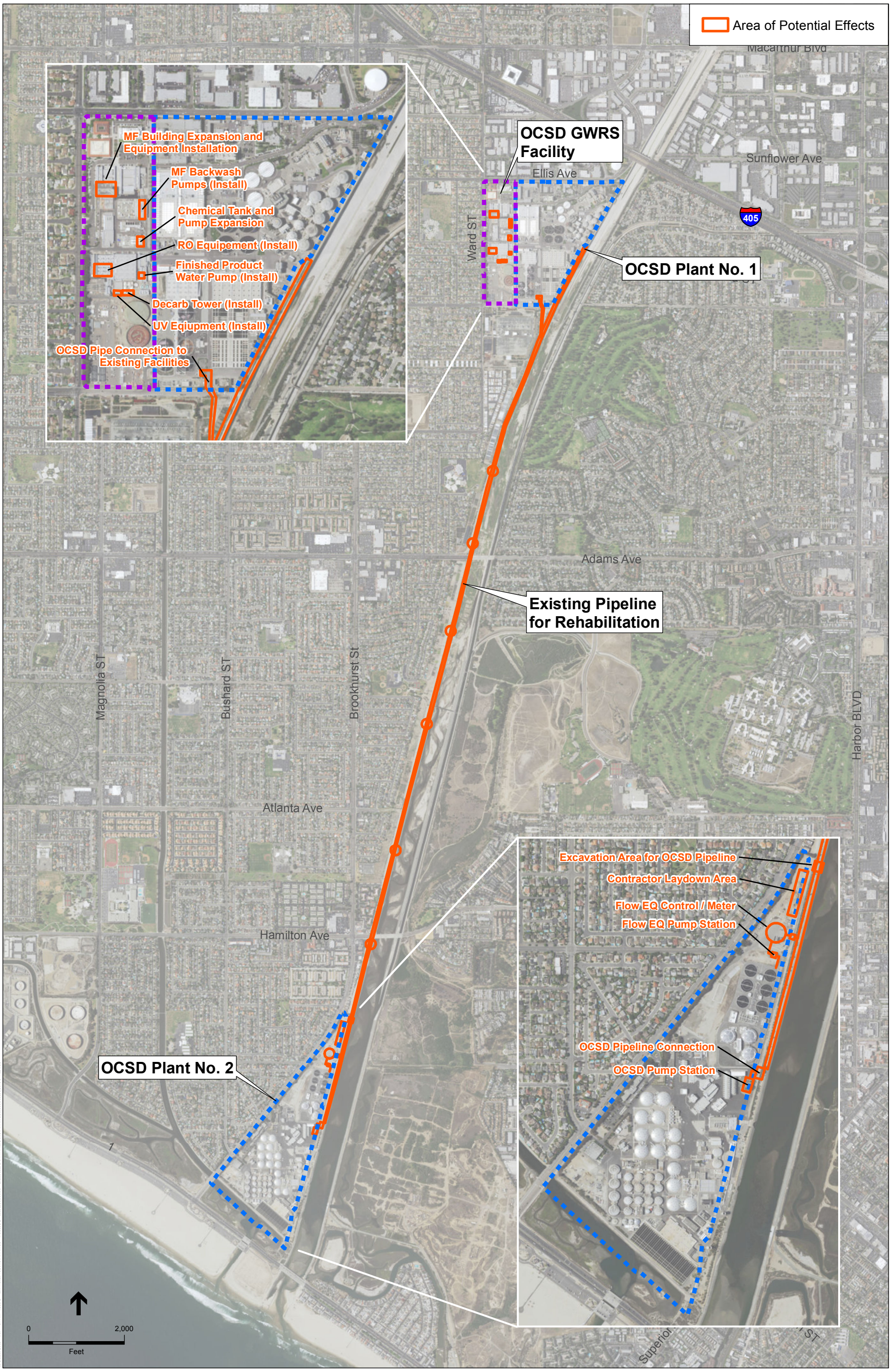


SOURCE: USGS Newport Beach, CA (1978) 7.5' DRG;

OCWD Groundwater Replenishment System Final Expansion Project . P160387.01

Figure 1

Local Vicinty Map Topographic Base



SOURCE: ESRI

OCWD Groundwater Replenishment System Final Expansion Project . P160387.01

Figure 3

Area of Potential Effects

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710
Fax (916) 373-5471

June 6, 2016

Arabesque Said, MPP
Environmental Science Associates

Sent by Email: aabdelwahed@esassoc.com

RE: Proposed Groundwater Replenishment System Final Expansion, Cultural Resources Assessment Project, City of Huntington Beach; Newport Beach USGS Quadrangle, Orange County, California

Dear M. Said:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Contact List
Orange County
June 3, 2016

Juaneno Band of Mission Indians Acjachemen Nation
Chairperson, Matias Belardes
32161 Avenida Los Amigos — Juaneno
San Juan Capisttrano , CA 92675
(949) 293-8522
(949) 444-4340 (Cell)

Juaneno Band of Mission Indians
Adolph 'Bud' Sepulveda, Vice Chairperson
P.O. Box 25828 — Juaneno
Santa Ana , CA 92799
bssepul@yahoo.net
(714) 838-3270
(714) 914-1812 Cell

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell

(626) 286-1262 Fax

Juaneño Band of Mission Indians
Sonia Johnston, Tribal Chairperson
P.O. Box 25628 — Juaneno
Santa Ana , CA 92799
sonia.johnston@sbcglobal.net

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
1999 Avenue of the Stars, Suite 1100 — Gabrielino
Los Angeles , CA 90067

(310) 428-5690 Cell

Juaneno Band of Mission Indians Acjachemen Nation
Teresa Romero, Chairwoman
31411-A La Matanza Street — Juaneno
San Juan Capistrano , CA 92675
tromero@juaneno.com
(949) 488-3484
(530) 354-5876 Cell
(949) 488-3294 Fax

Juaneno Band of Mission Indians Acjachemen Nation
Joyce Perry, Tribal Manager
4955 Paseo Segovia — Juaneno
Irvine , CA 92612
kaamalam@gmail.com
(949) 293-8522

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 — Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
1999 Avenue of the Stars, Suite 1100 — Gabrielino
Los Angeles , CA 90067
(626) 676-1184 Cell

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

Distribution of this list does not relieve any person or agency of statutory responsibility as defined in Public Resources Code Sections 21080.3.1 Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Groundwater Replenishment System Final Expansion, Section 106 Cultural Resources Assessment Project, City of Huntington Beach, Newport Beach USGS Quadrangle, Orange County, California.

Native American Contact List
Orange County
June 3, 2016

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.com
(626) 926-4131

Gabrielino-Tongva Tribe
Conrad Acuna
1999 Avenue of the Stars, Suite 1100 Gabrielino
Los Angeles , CA 90067

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

This list is current only as of the date of this document and is based on the information available to the Commission on the date it was produced.

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This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Groundwater Replenishment System Final Expansion, Section 106 Cultural Resources Assessment Project, City of Huntington Beach, Newport Beach USGS Quadrangle, Orange County, California.

2121 Alton Parkway
Suite 100
Irvine, CA 92606
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

June 20, 2016

Chairperson Matias Belardes
Juaneño Band of Mission Indians Acjachemen Nation
32161 Avenida Los Amigos
San Juan Capistrano, CA 92675

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Chairperson Belardes :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) considers the effects a project may have on historic properties. The definition of "historic properties" can include properties of traditional religious and cultural significance to Native American groups. To determine whether the proposed project may impact any historic properties, including traditional cultural properties, ESA has reviewed background information and consulted with the Native American Heritage Commission (NAHC). Our records search at the South Central Coastal Information Center (SCCIC), indicate that there are no known cultural resources in the Area of Potential Effect (APE). A record search of the NAHC's Sacred Land File has failed to indicate the presence of Native American cultural resources in the immediate APE. The NAHC has listed you as a tribal contact for this project.

We would appreciate your comments identifying any sensitive sites in or near the project area that you may be aware of, any concerns or issues pertinent to this project, or the names of others who may be interested in this project. Thank you for your cooperation on this matter. If you have any questions or comments, please contact me at 949.870.1524 (cell) or aabdelwahed@esassoc.com.

Sincerely,

Arabesque Said-Abdelwahed, MPP
Community Development

2121 Alton Parkway
Suite 100
Irvine, CA 92606
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

June 20, 2016

Chairperson Anthony Morales
Gabrieleno/Tongva San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Chairperson Morales, :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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June 20, 2016

Chaiperson Sandonne Goad
Gabrielino/Tongva Nation
106 1/2 Judge John Aliso St.
#231
Los Angeles, CA 90012

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Chaiperson Goad :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Arabesque Said-Abdelwahed, MPP
Community Development

2121 Alton Parkway
Suite 100
Irvine, CA 92606
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June 20, 2016

Chairwoman Teresa Romero
Juaneño Band of Mission Indians Acjachemen Nation
31411-A La Matanza Street
San Juan Capistrano, CA 92675

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Chairwoman Romero :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Community Development

ESA

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June 20, 2016

Vice Chairperson Adolph "Bud" Sepulveda
Juaneño Band of Mission Indians
P.O. Box 25828
Santa Ana, CA 92799

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Vice Chairperson Sepulveda :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Sincerely,

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Community Development

ESA

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June 20, 2016

Tribal Chairperson Sonia Johnston
Juaneño Band of Mission Indians
P.O. Box 25628
Santa Ana, CA 92799

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Tribal Chairperson Johnston :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Sincerely,

Arabesque Said-Abdelwahed, MPP
Community Development

2121 Alton Parkway
Suite 100
Irvine, CA 92606
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

June 20, 2016

Co-Chairperson Bernie Acuna
Gabrielino-Tongva Tribe
1999 Avenue of the Stars
Suite 1100
Los Angeles, CA 90067

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Co-Chairperson Acuna :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Community Development

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213.599.4300 phone
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June 20, 2016

Tribal Manager Joyce Perry
Juaneño Band of Mission Indians Acjachemen Nation
4955 Paseo Segovia
Irvine, CA 92612

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Tribal Manager Perry :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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2121 Alton Parkway
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June 20, 2016

Co-Chairperson Linda Candelaria
Gabrielino-Tongva Tribe
1999 Avenue of the Stars
Suite 1100
Los Angeles, CA 90067

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Co-Chairperson Candelaria :

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Community Development

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June 20, 2016

Chairperson Andrew Salas
Gabrieleno Band of Mission Indians - Kizh Nation
P.O. Box 393
Covina, CA 91723

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Chairperson Salas :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Sincerely,

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Community Development

2121 Alton Parkway
Suite 100
Irvine, CA 92606
213.599.4300 phone
213.599.4301 fax

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June 20, 2016

Conrad Acuna
Gabrielino-Tongva Tribe
1999 Avenue of the Stars
Suite 1100
Los Angeles, CA 90067

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Conrad Acuna :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Irvine, CA 92606
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June 20, 2016

Cultural Resources Director Sam Dunlap
Gabrielino/Tongva Nation
P.O. Box 86908
Los Angeles, CA 90086

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Cultural Resources Director Dunlap :

ESA is conducting a cultural resources assessment as part of CEQA-Plus documentation for the Groundwater Replenishment System (GWRS) Final Expansion Project (project) located in the cities of Huntington Beach and Fountain Valley, California. The GWRS is an advanced water treatment facility constructed by the Orange County Water District (OCWD) and the Orange County Sanitation District (OCSD) that supplements local water supplies by providing reliable, high quality source of treated water to recharge the Orange County Groundwater Basin and to protect the Orange County Groundwater Basin from seawater intrusion. The GWRS consists of three major components: an advanced water purification facility and pumping stations, a major pipeline connecting the treatment facilities to existing recharge basins and an existing seawater intrusion barrier. The proposed project would include the construction and operation of an expanded microfiltration treatment facility, expanded Reverse Osmosis Treatment Capacity, expanded ultraviolet light treatment facility at the existing OCWD GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the OCSD Treatment Plant No. 2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. A separate headworks facility and a bypass pipeline would be constructed on OCSD's Plant No. 2 that will segregate the brine flows from the typical influent domestic wastewater flows to Plant No. 2. As seen on the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 south; Range 10 West of the United States Geologic Survey (USGS) Newport Beach, CA 7.5' topographic quadrangle.

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Sincerely,

Arabesque Said-Abdelwahed, MPP
Community Development

2121 Alton Parkway
Suite 100
Irvine, CA 92606
213.599.4300 phone
213.599.4301 fax

www.esassoc.com

June 20, 2016

Subject: Groundwater Replenishment System Final Expansion Project – D160387.01

Dear Sir or Madam, :

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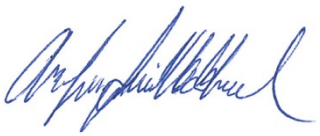


Arabesque Said-Abdelwahed, MPP
Community Development

Native American Contact Log

Individual Contacted/Affiliation	Number/Email	Letter Sent	Response	Follow-up Phone Call	Response	Action Item
Matias Belardes, Chairperson Juaneno Band of Mission Indians, Acjachemen Nation	949.293.8522	20-Jun-16	No response	28-Jun-16	SW: Ms Joyce Stanfield-Perry (Cultural Resources); Recommends NA and Arch monitoring during all ground disturbing activities. She also recommends that in the event of a discovery, the project stop and the tribe and agency evaluates the mitigation plan	-
Adolph Sepulveda, Vice-Chaiperson Juaneno band of Mission Indians	714.914.1812 / bssepul@yahoo.com	20-Jun-16	No response	28-Jun-16	Left VM. No response to date.	-
Anthony Morales, Chairperson, Gabrielino/Tongva San Gabriel Band of Mission Indians	(626) 483-3564 / GTTribalcouncil@aol.com	20-Jun-16	No response	28-Jun-16	SW: Mr. Anthony Morales stated that he is very familiar with the Project area and its vicinity, and he knows it to be very sensitive for Native American cultural resources. Mr. Anthony Morales also stated that although that Project is located within an industrial area, any ground disturbances may still encounter previously undisturbed soils and resources and should therefore be closely monitored by a Native American monitor.	-
Sonia Johnston, Tribal Chairperson Juaneno Band of Mission Indians	sonia.johnston@sbcglobal.net	20-Jun-16	No response	28-Jun-16	Sent email. No response to date	
Sandonne Goad, Chairperson, Gabrielino/Tongva Nation	(951) 807-0479 / sgoad@gabrielino=tongva.com	20-Jun-16	No response	28-Jun-16	SW: Ms. Sadonne Goad stated that she would prefer to forward all comments to San Dunlap; No response from Mr. Dunlap	
Bernie Acuna, Co-Chairperson, Gabrielino/Tongva Tribe	310.428.5690	20-Jun-16	No response	28-Jun-16	Left VM. No response to date.	-
Teresa Romero, Chairwoman, Juaneno Band of Mission Indians Acjachemen Nation	949.488.3484 / tromero@juaneno.com	20-Jun-16	No response	28-Jun-16	Left VM. No response to date.	-
Joyce Perry, Tribal Manager, Juaneno Band of Mission Indians Acjachemen Nation	949.293.8522 / kaamalam@gmail.com	20-Jun-16	No response	28-Jun-16	SW: Ms Joyce Stanfield-Perry (Cultural Resources); Recommends NA and Arch monitoring during all ground disturbing activities. She also recommends that in the event of a discovery, the project stop and the tribe and agency evaluates the mitigation plan	
Robert Dorame, Tribal Chair, Grarielino Tongva Indians of California Tribal Council	562.761.6417 / gtongva@verizon.net	20-Jun-16	No response	28-Jun-16	SW: Mr Dorame and he requested an email copy of the letter for review	Forwarded a PDF copy of letter to gtongva@verizon.net on June 28, 2016
Linda Candelaria, Co-Chairperson, Gabrielino Tongva Tribe	626.676.1184	20-Jun-16	No response	28-Jun-16	Left VM. No response to date.	
Andrew Salas, Chairperson, Gabrielino Band of Mission Indians - Kizh Nation	(626) 926-4131 / gabrielinoindians@yahoo.com	20-Jun-16	No response	28-Jun-16	SW: Mr. Salas and he recommends that NA and Arch monitoring be conducted during all ground disturbance. He also requested a digital copy of the letter that was sent out.	Forwarded a PDF copy of letter to andysalas07@yahoo.com on June 28, 2016
Sam Dunlap, Cultural Resources Director, Gabrielino/Tongva Nation	(909) 262-9351 / samdunlap@earthlink.net	20-Jun-16	No response	28-Jun-16	SW: Mr Dunlap and he requested an email copy of the letter for review	Forwarded a PDF copy of the letter to samdunlap@earthlink.net on June 28, 2016
Conrad Acuna, Gabrielin-Tongva Tribe		20-Jun-16	No response			No contact info provide by the NAHC
SW = Spoke with						
VM = Voicemail						

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

Dear Vanessa Ortiz,

"The project locale lies in an area where the Ancestral & traditional territories of the Kizh(Kitc) Gabrieleño villages, adjoined and overlapped with each other, at least during the Late Prehistoric and Protohistoric Periods. The homeland of the Kizh (Kitc) Gabrieleños , probably the most influential Native American group in aboriginal southern California (Bean and Smith 1978a:538), was centered in the Los Angeles Basin, and reached as far east as the San Bernardino-Riverside area. The homeland of the Serranos was primarily the San Bernardino Mountains, including the slopes and lowlands on the north and south flanks. Whatever the linguistic affiliation, Native Americans in and around the project area exhibited similar organization and resource procurement strategies. Villages were based on clan or lineage groups. Their home/ base sites are marked by midden deposits, often with bedrock mortars. During their seasonal rounds to exploit plant resources, small groups would migrate within their traditional territory in search of specific plants and animals. Their gathering strategies often left behind signs of special use sites, usually grinding slicks on bedrock boulders, at the locations of the resources. Therefore in order to protect our resources we're requesting one of our experienced & certified ***Native American monitors as well as Arceo-Monitoring*** *to be on site during any & all ground disturbances (this includes but is not limited to pavement removal, pot-holing or auguring, boring, grading, excavation and trenching).*

In all cases, when the NAHC states there are "No" records of sacred sites" in the subject area; they always refer the contractors back to the Native American Tribes whose tribal territory the project area is in. This is due to the fact, that the NAHC is only aware of general information on each California NA Tribe they are "NOT " the "experts" on our Tribe. Our Elder Committee & Tribal Historians are the experts and is the reason why the NAHC will always refer contractors to the local tribes.

In addition, we are also often told that an area has been previously developed or disturbed and thus there are no concerns for cultural resources and thus minimal impacts would be expected. I have two major recent examples of how similar statements on other projects were proven very inadequate. An archaeological study claimed there would be no impacts to an area adjacent to the Plaza Church at Olvera Street, the original Spanish settlement of Los Angeles, now in downtown Los Angeles. In fact, this site was the Gabrieleno village of Yangna long before it became what it is now today. The new development wrongfully began their construction and they, in the process, dug up and desecrated 118 burials. The area that was dismissed as culturally sensitive was in fact the First Cemetery of Los Angeles where it had been well documented at the Huntington Library that 400 of our Tribe's ancestors were buried there along with the founding families of Los Angeles (Pico's, Sepulveda's, and Alvarado's to name a few). In addition, there was another inappropriate study for the development of a new sports complex at Fedde Middle School in the City of Hawaiian Gardens could commence. Again, a village and burial site were desecrated despite their mitigation measures. Thankfully, we were able to work alongside the school district to quickly and respectfully mitigate a mutually beneficial resolution.

Given all the above, the proper thing to do for your project would be for our Tribe to monitor ground disturbing construction work. Native American monitors and/or consultant can see that cultural resources are treated appropriately from the Native American point of view. Because we are the lineal descendants of the vast area of Los Angeles and Orange Counties, we hold sacred the ability to protect what little of our culture remains. We thank you for taking seriously your role and responsibility in assisting us in preserving our culture.

With respect,

Please contact our office regarding this project to coordinate a Native American Monitor to be present. Thank You

Andrew Salas, Chairman
Cell (626) 926-4131

Addendum: clarification regarding some confusions regarding consultation under AB52:

AB52 clearly states that consultation must occur with tribes that claim traditional and cultural affiliation with a project site. Unfortunately, this statement has been left open to interpretation so much that neighboring tribes are claiming affiliation with projects well outside their traditional tribal territory. The territories of our surrounding Native American tribes such as the Luiseno, Chumash, and Cahuilla tribal entities. Each of our tribal territories has been well defined by historians, ethnographers, archaeologists, and ethnographers – a list of resources we can provide upon request. Often, each Tribe as well educates the public on their very own website as to the definition of their tribal boundaries. You may have received a consultation request from another Tribe. However we are responding because your project site lies within our Ancestral tribal territory, which, again, has been well documented. What does Ancestrally or Ancestral mean? The people who were in your family in past times, Of, belonging to, inherited from, or denoting an ancestor or ancestors http://www.thefreedictionary.com/ancestral. . If you have questions regarding the validity of the "traditional and cultural affiliation" of another Tribe, we urge you to contact the Native American Heritage Commission directly. Section 5 section 21080.3.1 (c) states "…the Native American Heritage Commission shall assist the lead agency in identifying the California Native American tribes that are traditionally and culturally affiliated with the project area." In addition, ***please see the map below.***

CC: NAHC

APPENDIX 1: Map 1-2; Bean and Smith 1978 map.

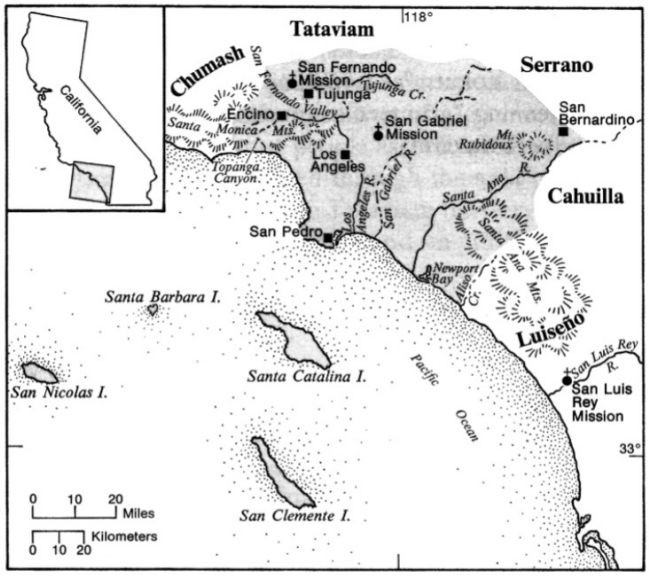


Fig. 1. Tribal territory.

The United States National Museum's Map of Gabrielino Territory:

Bean, Lowell John and Charles R. Smith
1978 Gabrielino IN *Handbook of North American Indians, California,* Vol. 8, edited by R.F. Heizer, Smithsonian Institution Press, Washington, D.C., pp. 538-549

Andrew Salas, Chairman | Nadine Salas, Vice-Chairman | Christina Swindall Martinez, secretary

Albert Perez, treasurer I | Martha Gonzalez Lemos, treasurer II | Richard Gradias, Chairman of the council of Elders

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

Sacred Lands File & Native American Contacts List Request

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd, Suite 100
West Sacramento, CA 95691
(916) 373-3710
(916) 373-5471 – Fax
nahc@nahc.ca.gov

Information Below is Required for a Sacred Lands File Search

Project: Section 106 Cultural Resources Assessment for the Groundwater Replenishment System Phase 3 Expansion

County: Orange

USGS Quadrangle Name: Newport Beach
Townships: 5 and 6 South --- Range: 10 West Section(s): Multiple

Company: FirstCarbon Solutions

Contact Person: Arabesque Said, MPP

Street Address: 220 Commerce, Suite 200

Cell 951.310.7031

Office Phone: 714.508.4100

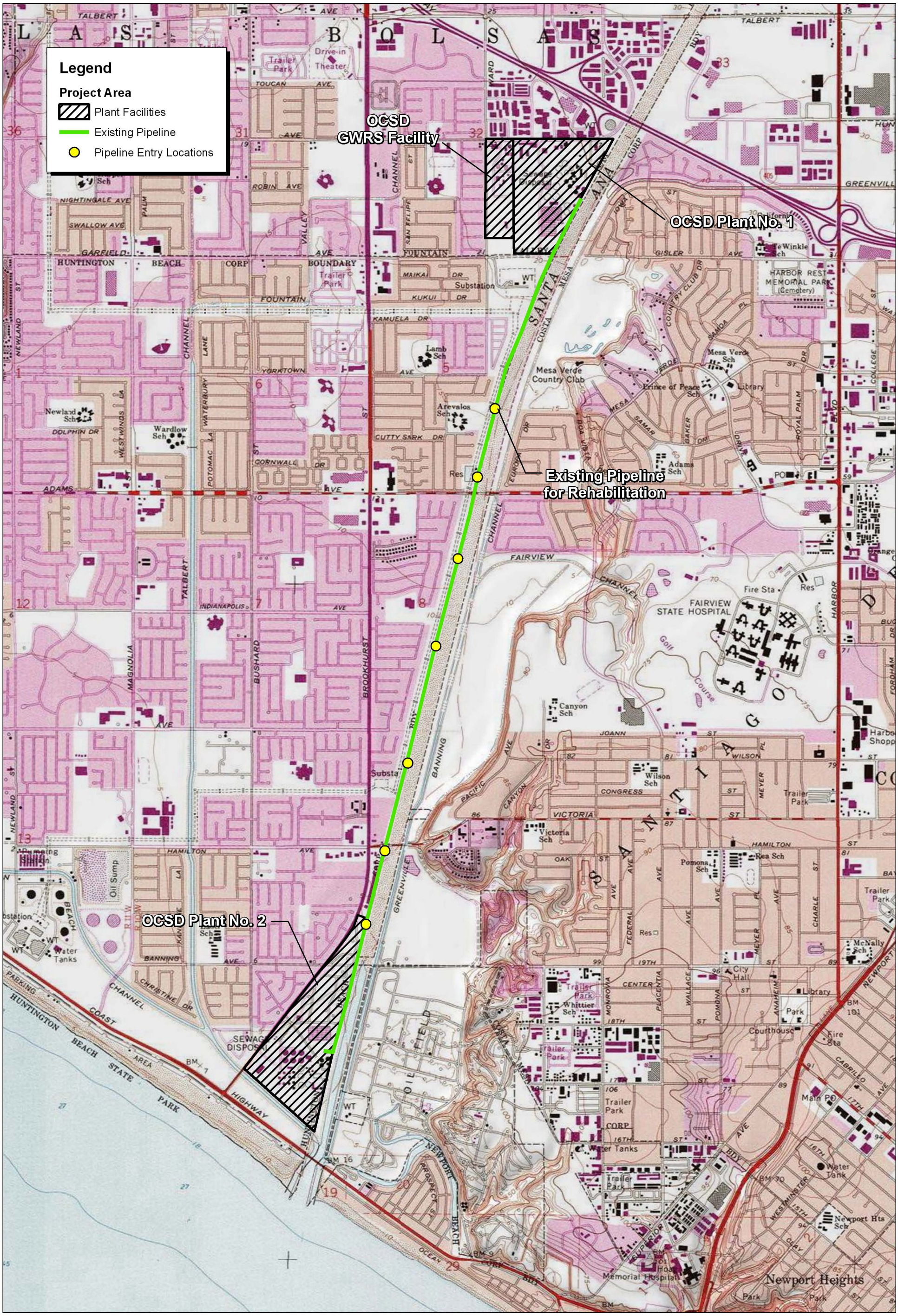
Fax: 714.508.4110

Email as needed: asaid@brandman.com

SEE ATTACHED MAP

The project will include the construction and operation of an expanded microfiltration treatment facility, expanded reverse osmosis treatment facility, expanded ultraviolet light treatment facilities at existing Orange County Sanitations District's Treatment Plant No.2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. Excavation will be necessary to access the pipeline.

FCS' project 0435.0043



Source: TOPO! USGS Newport Beach, CA (1978) 7.5' DRG.

FirstCarbon® SOLUTIONS

2,000 1,000 0 2,000 Feet

Local Vicinity Map
Topographic Base

STATE OF CALIFORNIA Edmund G. Brown, Jr., Governor

NATIVE AMERICAN HERITAGE COMMISSION
1550 Harbor Blvd., ROOM 100
West SACRAMENTO, CA 95691
(916) 373-3710
Fax (916) 373-5471

August 22, 2014

Arabesque Said
First Carbon Solutions
220 Commerce, Suite 200
Irvine, CA 92602

Sent by Fax: (714) 508-4110
Number of Pages: 2

Re: Project Section 106 Cultural Resources Assessment for the Groundwater Replenishment System Phase 3 Expansion, Orange County.

Dear Mr. Said,

A record search of the sacred land file has failed to indicate the presence of Native American cultural resources in the immediate project area. The absence of specific site information in the sacred lands file does not indicate the absence of cultural resources in any project area. Other sources of cultural resources should also be contacted for information regarding known and recorded sites.

Enclosed is a list of Native Americans individuals/organizations who may have knowledge of cultural resources in the project area. The Commission makes no recommendation or preference of a single individual, or group over another. This list should provide a starting place in locating areas of potential adverse impact within the proposed project area. I suggest you contact all of those indicated, if they cannot supply information, they might recommend others with specific knowledge. By contacting all those listed, your organization will be better able to respond to claims of failure to consult with the appropriate tribe or group. If a response has not been received within two weeks of notification, the Commission requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact me at (916) 373-3712.

Sincerely,

Katy Sanchez

Katy Sanchez
Associate Government Program Analyst

Native American Contact List
Orange County
August 21, 2014

Tongva Ancestral Territorial Tribal Nation
John Tommy Rosas, Tribal Admin.
Gabrielino Tongva
tattnlaw@gmail.com
(310) 570-6567

Gabrielino-Tongva Tribe
Linda Candelaria, Co-Chairperson
P.O. Box 180 Gabrielino
Bonsall , CA 92003
palmsprings9@yahoo.com
(626) 676-1184 Cell
(760) 636-0854 Fax

Gabrieleno/Tongva San Gabriel Band of Mission
Anthony Morales, Chairperson
P.O. Box 693 Gabrielino Tongva
San Gabriel , CA 91778
GTTribalcouncil@aol.com
(626) 483-3564 Cell
(626) 286-1262 Fax

Gabrieleno Band of Mission Indians
Andrew Salas, Chairperson
P.O. Box 393 Gabrielino
Covina , CA 91723
gabrielenoindians@yahoo.
(626) 926-4131

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St. Gabrielino Tongva
Los Angeles , CA 90012
sgoad@gabrielino-tongva.com
(951) 807-0479

Gabrielino-Tongva Tribe
Conrad Acuna,
P.O. Box 180 Gabrielino
Bonsall , CA 92003
(760) 636-0854 Fax

Gabrielino Tongva Indians of California Tribal Council
Robert F. Dorame, Tribal Chair/Cultural Resources
P.O. Box 490 Gabrielino Tongva
Bellflower , CA 90707
gtongva@verizon.net
(562) 761-6417 Voice/Fax

Gabrielino /Tongva Nation
Sam Dunlap, Cultural Resources Director
P.O. Box 86908 Gabrielino Tongva
Los Angeles , CA 90086
samdunlap@earthlink.net
(909) 262-9351

Gabrielino-Tongva Tribe
Bernie Acuna, Co-Chairperson
P.O. Box 180 Gabrielino
Bonsall , CA 92003
bacuna1@gabrielinotribe.org
(619) 294-6660 Office
(310) 428-5690 Cell

(760) 636-0854 Fax

This list is current only as of the date of this document.

Distribution of this list does not relieve any person of the statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resources Code and Section 5097.98 of the Public Resources Code.
This list is only applicable for contacting local Native Americans with regard to cultural resources for the proposed Section 106 Cultural Resources Assessment for the Groundwater Replenishment System Phase 3 Expansion, Orange County.

North America I Europe I Australia I Asia
www.FirstCarbonSolutions.com

August 27, 2014

Subject: **Proposed Groundwater Replenishment System Phase 3 Expansion, 5650 East Avenue, Cities of Huntington Beach and Fountain Valley, California (Newport Beach, CA USGS Topographic Quadrangle).**

Dear

FirstCarbon Solutions is completing CEQA-Plus documentation associated with the proposed Groundwater Replenishment System Phase 3 Expansion Project located in the Cities of Huntington Beach and Fountain Valley, California. The proposed project will include the construction and operation of an expanded microfiltration treatment facility, expanded reverse osmosis treatment facility, expanded ultraviolet light treatment facilities at the existing Orange County Water District GWRS Facility in Fountain Valley. The project would also include construction and operation of a new pump station at the Orange County Sanitation District's (OCSD) Treatment Plant No.2 in Huntington Beach and the renovation of an existing water supply pipeline located on the west side of the Santa Ana River. As seen in the attached topographic map, the project area is located within multiple sections of Townships 5 and 6 South; Range 10 West of the USGS Newport Beach, CA 7.5' topographic quadrangle.

Section 106 of the National Historic Preservation Act of 1966 (NHPA) considers the effects a project may have on historic properties. The definition of "historic properties" can include properties of traditional religious and cultural significance to Native American groups. To determine whether the proposed project may impact any historic properties, including traditional cultural properties, FCS has reviewed background information and consulted with the Native American Heritage Commission (NAHC). Our records search at the South Central Coastal Information Center (SCCIC), indicated that there are no known cultural resources in the Area of Potential Effect (APE). A record search of the NAHC's Sacred Land File has failed to indicate the presence of Native American cultural resources in the immediate APE. The NAHC has listed you as a tribal contact for this project.

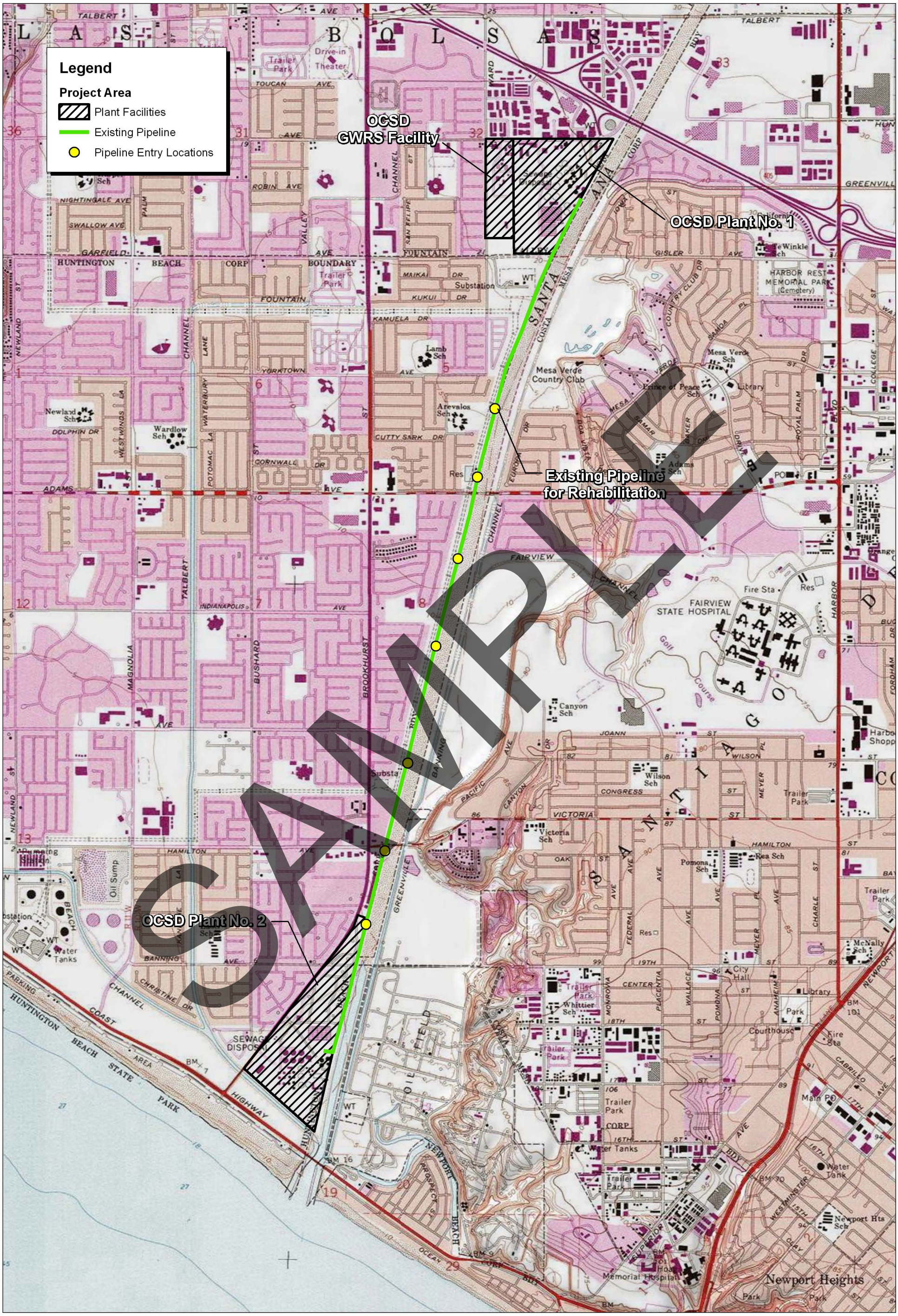
FCS is sending this letter to ask if you have any information or concerns about this proposed project and/or if the proposed project may have an impact on cultural resources that are important to you. Please

Please feel free to contact me at **714.508.4100** or via email at asaid@brandman.com if you have any questions or would like to discuss the project in more detail.

Sincerely,

Arabesque Said-Abdelwahed, MPP
Assistant Project Manager
FirstCarbon Solutions
220 Commerce, Suite 200
Irvine, CA 92602

Enclosures: Map of Survey Area



Source: TOPO! USGS Newport Beach, CA (1978) 7.5' DRG.

FirstCarbon® SOLUTIONS

2,000 1,000 0 2,000 Feet

Local Vicinity Map
Topographic Base

04350043 • 08/2014 | local_topo.mxd

OCWD • GWRS PHASE III EXPANSION
CULTURAL RESOURCES ASSESSMENT

Call log

Listed Tribe to Contact	Contact Name	Phone number	Call Date	Call Time	Notes	Result
Tongva Acenstral Territorial Tribal Nation	John Tommy Rosas	(310) 570-6567	9/9/2014	am	Concerned about project because located wihthin a sensitive archaelogical area. Recommends testing prior to excavation or full time archaeological and Native American monitoring.	Returned FCS phone call
Gabrieleno/Tongva San Gabriel Band of Mission	Anthony Morales	(626) 483-3564	9/9/2014	4:14pm	Concerned about the project because of its location along the Santa Ana River. Suggested archaeological and paleontological monitoring.	Returned FCS phone call
Gabrielino/Tongva Nation	Sandonne Goad	(951) 807-0479	9/9/2014	4:15pm	Referred to Sam Dunlap	Answered FCS' phone call
Gabrielino Tongva Indians of California Tribal Council	Robert F Dorame	(562) 761-6417	9/9/2014 9/18/2014	4:20pm 3:00pm		FCS left a voicemail No answer
Gabrielino-Tongva Tribe	Bernie Acuna	(310) 428-5690-cell (619) 294-6660-office	9/10/2014	1:45pm		FCS left a voicemail and sent an email
Gabrielino-Tongva Tribe			9/18/2014	3:02pm		No answer
Gabrieleno Band of Mission Indians	Linda Candelaria	(626) 676-1184	9/9/2014	1:55pm		FCS left a voicemail
Gabrielino-Tongva Tribe	Andrew Salas	(626) 926-4131	9/10/2014	1:56pm	Mr. Salas expressed concerned about the project due to its location in an archaeological sensitive area. Mr. Salas suggested archaeological and Native American monitoring take place to protect and preserve any cultural resources that may be discovered during excavations.	Answered FCS' phone call
Gabrielino/Tongva Nation	Conrad Acuna	(760) 636-0854-fax	No phone number or email provided			
	Sam Dunlap	(909) 262-9351	9/10/2014	2:15pm	FCS left a voicemail. On September 11, 2014 Mr. Dunlap sent an email to FCS. Mr. Dunlap expressed concerns about construction and recommended archaeological and Native American monitoring	Mr. Dunlap provided a response to FCS via email on September 11

APPENDIX D
Photographs of the Project APE

Photo 1: Excavation area and laydown area for OCSD Pipeline (pipeline entry location 1) at the northern portion of the OCSD Plant No. 2 Facility; facing north.

Photo 2: View to the east of the rip rap and Santa Ana River Trail from the contractor laydown area.

SOURCE: ESA, 2016

Photo 3: Pump Station and Pipe Connection; facing west.

Photo 4: Headgates and Bypass Pipeline location.

SOURCE: ESA, 2016

Photo 5: Flow EQ Pump Station. The surficial soils were previously disturbed during construction of the OCSD Plant No. 2.

Photo 6: Flow EQ Meter/Control.

SOURCE: ESA, 2016

Photo 7: Second pipeline entry location along the OCSD easement corridor.

Photo 8: Santa Ana River Trail situated on the levee; view facing east.

SOURCE: ESA, 2016

Photo 9: Third pipeline entry location along the OCSD easement corridor; facing south.

Photo 10: Fourth pipeline entry location along the OCSD easement corridor; facing south.

SOURCE: ESA, 2016

Photo 11: Fifth pipeline entry location along the OCSD easement corridor; facing north.

Photo 12: Sixth pipeline entry location along the OCSD easement corridor; facing southwest.

SOURCE: ESA, 2016

Photo 13: Seventh pipeline entry location along the OCSD easement corridor; facing west.

Photo 14: Eighth pipeline entry location along the OCSD easement corridor.

SOURCE: ESA, 2016

Photo 15: OCSD Pipe Connection to existing facilities. Note the area is paved and previously disturbed during construction of the facility.

Photo 16: MF Building Expansion location; facing west.

SOURCE: ESA, 2016

Natural History Museum
of Los Angeles County
900 Exposition Boulevard
Los Angeles, CA 90007

tel 213.763.DINO
www.nhm.org

NATURAL HISTORY MUSEUM
LOS ANGELES COUNTY

Vertebrate Paleontology Section
Telephone: (213) 763-3325
Fax: (213) 746-7431
e-mail: smcleod@nhm.org

16 June 2016

ESA
17744 Skypark Circle, Suite 200
Irvine, CA 92614

Attn: Arabesque Said-Abdelwahed, Senior Associate

re: Paleontological resources for the proposed Orange County Water District Groundwater Replenishment System Final Expansion Project, in Fountain Valley and Huntington Beach, Orange County, project area

Dear Arabesque:

I have thoroughly searched our paleontology collection records for the locality and specimen data for the proposed Orange County Water District Groundwater Replenishment System Final Expansion Project, in Fountain Valley and Huntington Beach, Orange County, project area as outlined on the portion of the Newport Beach USGS topographic quadrangle map that you sent to me via e-mail on 2 June 2016. We do not have any vertebrate fossil localities that lie within the proposed project area boundaries, but we do have localities nearby from the same sedimentary units that may occur subsurface in the proposed project area.

The entire proposed project has surface deposits of younger Quaternary Alluvium, derived as fluvial deposits from the Santa Ana River that forms the eastern border of the proposed project area. We have no fossil vertebrate localities anywhere nearby from these deposits and they are unlikely to contain significant vertebrate fossils, at least in the uppermost layers. Small hills and bluffs both east and west of the proposed project area, however, define the Santa Ana River floodplain drainage and are mapped as having exposures of marine Quaternary Terrace deposits. These or other older Quaternary deposits may occur in the proposed project area at unknown depth. Our closest vertebrate fossil locality from these Quaternary Terrace deposits is LACM 7366, west of the southern portion proposed project area west of Huntington Drive and north of Pacific Coast Highway. Although mapped as having exposures of marine Quaternary Terrace deposits, locality LACM 7366 produced specimens of

marine, freshwater, and especially terrestrial specimens including leopard shark, *Triakis*, three-spined stickleback, *Gasterosteus*, garter snake, *Thamnophis*, desert shrew, *Notiosorex*, and most prominently, pocket gopher, *Thomomys*. The fossil specimens from this site were obtained by screen washing matrix and thus they consist solely of small specimens. Just a few hundred feet north-northwest of LACM 7366 we have a series of vertebrate fossil localities, LACM 7422-7425, that produced fossil specimens of mammoth, *Mammuthus*, bison, *Bison*, and horse, *Equus*, from Alluvium or dune deposits.

To the southeast of the southern portion of the proposed project area, our closest vertebrate fossil locality from these Quaternary deposits is LACM 6370, from the Hoag Hospital lower campus parcel near the intersection of Superior Avenue and the Pacific Coast Highway, that produced a specimen of a fossil horse, *Equus*. Further north and east, our locality LACM 3267 in these deposits, near the intersection of 19th Street and Anaheim Avenue, produced a specimen of a fossil elephant, Proboscidea, and locality LACM 4219, along the Newport Freeway near Santa Isabel Avenue, produced fossil specimens of turtle, *Chelonia*, and camel, Camelidae. Towards the northern portion of the proposed project area, east of the Santa Ana River near the top of the mesa bluffs along Adams Avenue, our vertebrate fossil locality LACM 1339 produced fossil specimens of mammoth, *Mammuthus*, and camel, Camelidae, bones from sands approximately 15 feet below the top of the mesa that is overlain by shell bearing silts and sands.

Surface grading or shallow excavations in the proposed project area probably will not uncover significant vertebrate fossil remains. Excavations that extend down into the older Quaternary deposits, however, may well encounter significant fossil vertebrate specimens. Any substantial excavations below the uppermost layers in the proposed project area, therefore, should be monitored closely to quickly and professionally recover any fossil remains discovered while not impeding development. Also, sediment samples from these deposits should be collected and processed to determine the small fossil potential in the proposed project area. Any fossils recovered during mitigation should be deposited in an accredited and permanent scientific institution for the benefit of current and future generations.

This records search covers only the vertebrate paleontology records of the Natural History Museum of Los Angeles County. It is not intended to be a thorough paleontological survey of the proposed project area covering other institutional records, a literature survey, or any potential on-site survey.

Sincerely,

Samuel A. McLeod

Samuel A. McLeod, Ph.D.
Vertebrate Paleontology

enclosure: invoice

NATIVE AMERICAN HERITAGE COMMISSION
Environmental and Cultural Department
1550 Harbor Blvd., Suite 100
West Sacramento, CA 95691
(916) 373-3710

September 1, 2017

Fatima Clark
ES Associates

Sent by E-mail: fclark@esassoc.com

RE: Proposed OCSD Biosolids Master Plan EIR Project, Cities of Huntington Beach and Fountain Valley; Newport Beach USGS Quadrangle, Orange County, California

Dear Ms. Clark:

A record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* was completed for the area of potential project effect (APE) referenced above with negative results however the area is sensitive for cultural resources. Please note that the absence of specific site information in the *Sacred Lands File* does not indicate the absence of Native American cultural resources in any APE.

Attached is a list of tribes culturally affiliated to the project area. I suggest you contact all of the listed Tribes. If they cannot supply information, they might recommend others with specific knowledge. The list should provide a starting place to locate areas of potential adverse impact within the APE. By contacting all those on the list, your organization will be better able to respond to claims of failure to consult. If a response has not been received within two weeks of notification, the NAHC requests that you follow-up with a telephone call to ensure that the project information has been received.

If you receive notification of change of addresses and phone numbers from any of these individuals or groups, please notify me. With your assistance we are able to assure that our lists contain current information. If you have any questions or need additional information, please contact via email: gayle.totton@nahc.ca.gov.

Sincerely,

Gayle Totton, M.A., PhD.
Associate Governmental Program Analyst

Native American Heritage Commission
Native American Contact List
Orange County
9/1/2017

Gabrieleno Band of Mission Indians - Kizh Nation
Andrew Salas, Chariperson
P.O. Box 393 — Gabrieleno
Covina, CA, 91723
Phone: (626) 926 - 4131
gabrielenoindians@yahoo.com

Gabrieleno/Tongva San Gabriel Band of Mission Indians
Anthony Morales, Chairperson
P.O. Box 693 — Gabrieleno
San Gabriel, CA, 91778
Phone: (626) 483 - 3564
Fax: (626) 286-1262
GTTribalcouncil@aol.com

Gabrielino /Tongva Nation
Sandonne Goad, Chairperson
106 1/2 Judge John Aiso St., #231 — Gabrielino
Los Angeles, CA, 90012
Phone: (951) 807 - 0479
sgoad@gabrielino-tongva.com

Gabrielino Tongva Indians of California Tribal Council
Robert Dorame, Chairperson
P.O. Box 490 — Gabrielino
Bellflower, CA, 90707
Phone: (562) 761 - 6417
Fax: (562) 761-6417
gtongva@gmail.com

Gabrielino-Tongva Tribe
Charles Alvarez,
23454 Vanowen Street — Gabrielino
West Hills, CA, 91307
Phone: (310) 403 - 6048
roadkingcharles@aol.com

Juaneno Band of Mission Indians
Sonia Johnston, Chairperson
P.O. Box 25628 — Juaneno
Santa Ana, CA, 92799
sonia.johnston@sbcglobal.net

Juaneno Band of Mission Indians Acjachemen Nation - Belardes
Matias Belardes, Chairperson
32161 Avenida Los Amigos — Juaneno
San Juan Capisttrano, CA, 92675
Phone: (949) 293 - 8522

Juaneno Band of Mission Indians Acjachemen Nation - Belardes
Joyce Perry, Tribal Manager
4955 Paseo Segovia — Juaneno
Irvine, CA, 92603
Phone: (949) 293 - 8522
kaamalam@gmail.com

Juaneno Band of Mission Indians Acjachemen Nation - Romero
Teresa Romero, Chairperson
31411-A La Matanza Street — Juaneno
San Juan Capistrano, CA, 92675
Phone: (949) 488 - 3484
Fax: (949) 488-3294
tromero@juaneno.com

San Fernando Band of Mission Indians
John Valenzuela, Chairperson
P.O. Box 221838 — Kitanemuk
Newhall, CA, 91322 — Serrano
Phone: (760) 885 - 0955 — Tataviam
tsen2u@hotmail.com

This list is current only as of the date of this document. Distribution of this list does not relieve any person of statutory responsibility as defined in Section 7050.5 of the Health and Safety Code, Section 5097.94 of the Public Resource Section 5097.98 of the Public Resources Code.

This list is only applicable for contacting local Native Americans with regard to cultural resources assessment for the proposed OCSD Biosolids Master Plan EIR Project, Orange County.

Serving:
Anaheim
Brea
Buena Park
Cypress
Fountain Valley
Fullerton
Garden Grove
Huntington Beach
Irvine
La Habra
La Palma
Los Alamitos
Newport Beach
Orange
Placentia
Santa Ana
Seal Beach
Stanton
Tustin
Villa Park
County of Orange
Costa Mesa Sanitary District
Midway City Sanitary District
Irvine Ranch Water District
Yorba Linda Water District

Orange County Sanitation District
10844 Ellis Avenue, Fountain Valley, CA 92708
714.962.2411 • www.ocsd.com

May 2, 2017

Andrew Salas, Chairman
Gabrieleno Band of Mission Indians – Kizh Nation
P.O. Box 393
Covina, CA 91723

SUBJECT: Notice of Proposed Project Pursuant to Public Resources Code Section 21080.3.1 ("AB 52") *Proposed Biosolids Master Plan*

This letter is to inform you that the Orange County Sanitation District (Sanitation District) proposes to implement the Biosolids Master Plan (proposed project) as described below. Per Assembly Bill 52 (AB 52), California Native American groups have the right to consult on a proposed public or private project prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.

The Sanitation District proposes to implement the Biosolids Master Plan (BMP) to provide a roadmap and framework for sustainable biosolids management over a 20-year planning period. After 25 years of operation, Sanitation District has identified the need to perform process equipment and structural rehabilitation of various biosolids handling facilities to maintain reliable operation of digesters at Plant No. 2. In order to address concerns with the structural deterioration of the biosolids facilities, the proposed program includes the demolition of aged facilities and the construction of new facilities such as digesters, pumps, tanks, pipelines and other ancillary facilities. The proposed projects would be implemented entirely within the existing Plant No. 2 property, located at 22212 Brookhurst Street in Huntington Beach, CA (see attached Figure 1). Implementation of the proposed program would provide long-term reliability and efficiency of biosolids handling at Plant No. 2. If you would like to engage in government-to-government consultation per AB 52, please respond in writing within 30 calendar days from receipt of this letter stating that you would like to consult on the proposed program. Please provide your lead person's contact information in your response. Please contact me as soon as possible if you wish to engage in consultation. My contact information is as follows:

Kevin Hadden
10844 Ellis Avenue
Fountain Valley, CA 92708
CEQA@ocsd.com
(714) 593-7462

We look forward to working with you should the Gabrieleno Band of Mission Indians – Kizh Nation elect to engage in the consultation process.

Kevin Hadden
Principal Staff Analyst

KH:sa
http://project/sites/PS15-01/PermitsCEQA/AB-52 Letter -Gabrieleno Band of Mission Indians_05-02-17.docx

Attachment: Figure 1, Project Location

SOURCE: ESA, ESRI.

OCSD Biosolids Master Plant. 150626

Figure 1
Project Location

Serving:
Anaheim
Brea
Buena Park
Cypress
Fountain Valley
Fullerton
Garden Grove
Huntington Beach
Irvine
La Habra
La Palma
Los Alamitos
Newport Beach
Orange
Placentia
Santa Ana
Seal Beach
Stanton
Tustin
Villa Park
County of Orange
Costa Mesa Sanitary District
Midway City Sanitary District
Irvine Ranch Water District
Yorba Linda Water District

Orange County Sanitation District
10844 Ellis Avenue, Fountain Valley, CA 92708
714.962.2411 • www.ocsd.com

May 2, 2017

Joyce Stanfield Perry, Tribal Manager
Juaneno Band of Mission Indians/Acjachement Nation
4955 Paseo Segovia
Irvine, CA 92603

SUBJECT: Notice of Proposed Project Pursuant to Public Resources Code Section 21080.3.1 ("AB 52") *Proposed Biosolids Master Plan*

This letter is to inform you that the Orange County Sanitation District (Sanitation District) proposes to implement the Biosolids Master Plan (proposed project) as described below. Per Assembly Bill 52 (AB 52), California Native American groups have the right to consult on a proposed public or private project prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.

The Sanitation District proposes to implement the Biosolids Master Plan (BMP) to provide a roadmap and framework for sustainable biosolids management over a 20-year planning period. After 25 years of operation, Sanitation District has identified the need to perform process equipment and structural rehabilitation of various biosolids handling facilities to maintain reliable operation of digesters at Plant No. 2. In order to address concerns with the structural deterioration of the biosolids facilities, the proposed program includes the demolition of aged facilities and the construction of new facilities such as digesters, pumps, tanks, pipelines and other ancillary facilities. The proposed projects would be implemented entirely within the existing Plant No. 2 property, located at 22212 Brookhurst Street in Huntington Beach, CA (see attached Figure 1). Implementation of the proposed program would provide long-term reliability and efficiency of biosolids handling at Plant No. 2.

If you would like to engage in government-to-government consultation per AB 52, please respond in writing within 30 calendar days from receipt of this letter stating that you would like to consult on the proposed program. Please provide your lead person's contact information in your response. Please contact me as soon as possible if you wish to engage in consultation. My contact information is as follows:

Kevin Hadden
10844 Ellis Avenue
Fountain Valley, CA 92708
CEQA@ocsd.com
(714) 593-7462

Our Mission: *To protect public health and the environment by providing effective wastewater collection, treatment, and recycling.*

We look forward to working with you should the Juaneno Band of Mission Indians/Acjachement Nation elect to engage in the consultation process.

Kevin Hadden
Principal Staff Analyst

KH:sa
http://project/sites/PS15-01/PermitsCEQA/AB 52 Letter-Juaneno Band of Mission Indians_05-02-17.docx

Attachment: Figure 1, Project Location

SOURCE: ESA, ESRI.

OCSD Biosolids Master Plant. 150626

Figure 1
Project Location

Serving:
Anaheim
Brea
Buena Park
Cypress
Fountain Valley
Fullerton
Garden Grove
Huntington Beach
Irvine
La Habra
La Palma
Los Alamitos
Newport Beach
Orange
Placentia
Santa Ana
Seal Beach
Stanton
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Yorba Linda Water District

Orange County Sanitation District
10844 Ellis Avenue, Fountain Valley, CA 92708
714.962.2411 • www.ocsd.com

May 2, 2017

Anthony Morales, Chief
San Gabriel Band of Mission Indians
P.O. Box 693
San Gabriel, CA 91778

SUBJECT: Notice of Proposed Project Pursuant to Public Resources Code Section 21080.3.1 ("AB 52") *Proposed Biosolids Master Plan*

This letter is to inform you that the Orange County Sanitation District (Sanitation District) proposes to implement the Biosolids Master Plan (proposed project) as described below. Per Assembly Bill 52 (AB 52), California Native American groups have the right to consult on a proposed public or private project prior to the release of a negative declaration, mitigated negative declaration or environmental impact report.

The Sanitation District proposes to implement the Biosolids Master Plan (BMP) to provide a roadmap and framework for sustainable biosolids management over a 20-year planning period. After 25 years of operation, Sanitation District has identified the need to perform process equipment and structural rehabilitation of various biosolids handling facilities to maintain reliable operation of digesters at Plant No. 2. In order to address concerns with the structural deterioration of the biosolids facilities, the proposed program includes the demolition of aged facilities and the construction of new facilities such as digesters, pumps, tanks, pipelines and other ancillary facilities. The proposed projects would be implemented entirely within the existing Plant No. 2 property, located at 22212 Brookhurst Street in Huntington Beach, CA (see attached Figure 1). Implementation of the proposed program would provide long-term reliability and efficiency of biosolids handling at Plant No. 2.

If you would like to engage in government-to-government consultation per AB 52, please respond in writing within 30 calendar days from receipt of this letter stating that you would like to consult on the proposed program. Please provide your lead person's contact information in your response. Please contact me as soon as possible if you wish to engage in consultation. My contact information is as follows:

Kevin Hadden
10844 Ellis Avenue
Fountain Valley, CA 92708
CEQA@ocsd.com
(714) 593-7462

We look forward to working with you should the San Gabriel Band of Mission Indians elect to engage in the consultation process.

Kevin Hadden
Principal Staff Analyst

KH:sa
http://project/sites/PS15-01/PermitsCEQA/AB 52 Letter-San Gabriel Band of Mission Indians_5-2-2017.doc

Attachment: Figure 1, Project Location

SOURCE: ESA, ESRI.

OCSD Biosolids Master Plant. 150626

Figure 1
Project Location

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

City of Huntington Beach
10844 Ellis Ave
Foutain Valley, CA 92708

Re: AB52 Consultation request for 22212 Brookhurst St. Huntington Beach CA

Dear Kevin Hadden,

Please find this letter as a written request for consultation regarding the above-mentioned project pursuant to Public Resources Code § 21080.3.1, subd. (d). Your project lies within our ancestral tribal territory, meaning descending from, or a higher degree of kinship than traditional or cultural affiliation. Your project is located within a sensitive area and may cause a substantial adverse change in the significance of our tribal cultural resources. Most often, a records search for our tribal cultural resources will result in a "no records found" for the project area. The Native American Heritage Commission, ethnographers, historians, and professional archaeologists can only provide limited information that has been previously documented about California Native Tribes. This is the reason the Native American Heritage Commission (NAHC) will always refer the lead agency to the respective Native American Tribe of the area because the NAHC is only aware of general information and are not the experts on each California Tribe. Our Elder Committee & tribal historians are the experts for our Tribe and are able to provide a more complete history (both written and oral) regarding the location of historic villages, trade routes, cemeteries and sacred/religious sites in the project area. Therefore, to avoid adverse effects to our tribal cultural resources, we would like to consult with you and your staff to provide you with a more complete understanding of the prehistoric use(s) of the project area and the potential risks for causing a substantial adverse change to the significance of our tribal cultural resources.

Consultation appointments are available on Wednesdays and Thursdays at our offices at 901 N. Citrus Ave. Covina, CA 91722 or over the phone. Please call toll free 1-844-390-0787 or email gabrielenoindians@yahoo.com to schedule an appointment.

** Prior to the first consultation with our Tribe, we require all those individuals participating in the consultation to view a video produced and provided by CalEPA and the NAHC for sensitivity and understanding of AB52. You can view the video at: http://nahc.ca.gov/2015/12/ab-52-tribal-training/

With Respect,

Andrew Salas, Chairman

Final

ORANGE COUNTY SANITATION DISTRICT PLANT NO. 1

Historical Resources Assessment

Prepared for
Orange County Sanitation District

February 2018

Final

ORANGE COUNTY SANITATION DISTRICT PLANT NO. 1

Historical Resources Assessment

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

February 2018

Project Director:
Amber Grady, M.A.

Project Manager:
Candace Ehringer, M.A.

Author:
Christian Taylor, M.H.P.

U.S.G.S. Quadrangles: Newport Beach, CA

Acres: Approx. 92

APNs: 156-101-01, 156-101-03, 156-181-01, and 156-181-02

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EXECUTIVE SUMMARY
Historical Resources Assessment

Environmental Science Associates (ESA) has been retained by the Orange County Sanitation District (OCSD) to prepare a Historic Resources Assessment of OCSD Plant No. 1 (Plant No. 1 or Plant), originally constructed in 1941. The Plant is located at 10844 Elis Avenue in Fountain Valley, Orange County, California, adjacent to the Santa Ana River and the San Diego Freeway (Interstate 405).

A records search at the California Historical Resources Information System (CHRIS) – South Central Coastal Information Center (SCCIC) was conducted on August 23, 2017, which included a review of the National Register of Historic Places (National Register) and its annual updates, the California Register of Historical Resources (California Register), the Statewide Historical Resources Inventory (HRI) database maintained by the California Office of Historic Preservation (OHP), as well as cultural resources reports on file. The results of the CHRIS-SCCIC records search indicate that no historic resources have been formally identified on or adjacent to the subject property.

An intensive pedestrian survey of the Plant was conducted on January 5, 2018, resulting in the documentation of 16 buildings, structures, and features that meet the 45-yeard old age threshold for historical resources prescribed by the OHP. The individual buildings, structures, and features lack distinction but together, reflect a second period of development for Plant No. 1 after the residents of Orange County voted for bond measures funding the improvement of their sewage system in 1949. For a brief period of time, Plant No. 1 experimented with the use of reclaimed sewage effluent for the irrigation of nearby agricultural fields. However, those fields quickly transitioned from agricultural uses into residential subdivisions. While the Orange County Water District (OCWD) took on the challenges of water reclamation, Plant No. 1 expanded to accommodate the growing suburban development in the area.

Of the16 historic aged buildings and features documented on the subject property, one building, the Old Operations Control Building, demonstrated architectural merit for further consideration as a historical resource. The Old Operations Control Building constructed in 1962, possesses elements of the Mid-Century style of architecture. However, its design and use of common materials make it a rudimentary example of the Mid-Century. The unique shape and design of the building do not appear to have any significant relationship to its use as an operations control building. Therefore, it does not appear to be an excellent example of its building type. The remaining buildings, structures, and features identified by the survey lack distinction for individual consideration of eligibility. However, together they are associated with the OCSD's use of the site as a wastewater treatment plant and were evaluated as a historic district.

Upon conclusion of the evaluation of Plant No. 1 as a potential historic district, it is recommended not eligible for listing in the California Register. While the Plant's expansion in the 1950s and 1960s was associated with the post-war development of Orange County and Fountain Valley, the Plant was one of many municipal services constructed in the area to support the growing population and suburban development. The Plant is a common example of the activated sludge treatment plant popular among growing suburban communities during the post-war era. As such, Plant No. 1 does not qualify as a historical resource under the California Environmental Quality Act (CEQA).

No historical resources have been identified in the surrounding area. Since Plant No. 1 was not found eligible as a historical resource and no historical resources have been identified in the surrounding area, no further work or mitigation is recommended for the subject property.

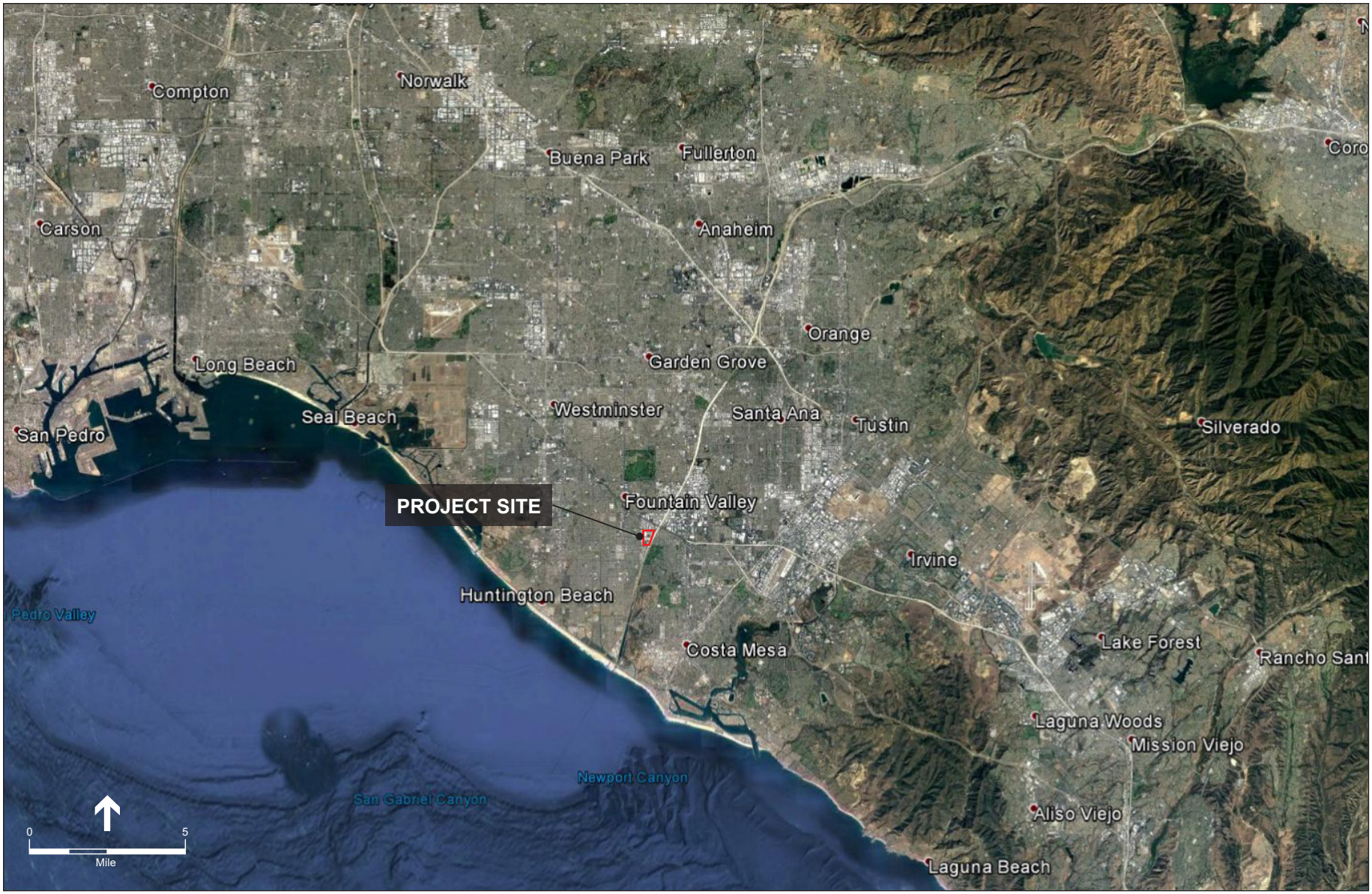
Orange County Sanitation District Plant No. 1

Historical Resources Assessment

Introduction

Environmental Science Associates (ESA) has been retained by the Orange County Sanitation District (OCSD) to prepare a Historical Resources Assessment of OCSD Plant No. 1 (Plant No. 1 or Plant) constructed in 1941. The Plant is located at 10844 Elis Avenue in Fountain Valley, Orange County, California, adjacent to the Santa Ana River and Interstate 405 (**Figure 1)**. The Plant includes Assessor Parcel Numbers (APNs) 156-101-01, 156-101-03, 156-181-01, and 156-181-02 and is bounded by Ellis Avenue to the north, the Santa Ana River to the east, Ward Street to the west, and Garfield Avenue to the south (**Figure 2**). Specifically, the Plant is located within section 32 of Township 5 South, Range 10 West on the Newport Beach 7.5-minute U.S. Geological Survey topographic quadrangle (**Figure 3**).

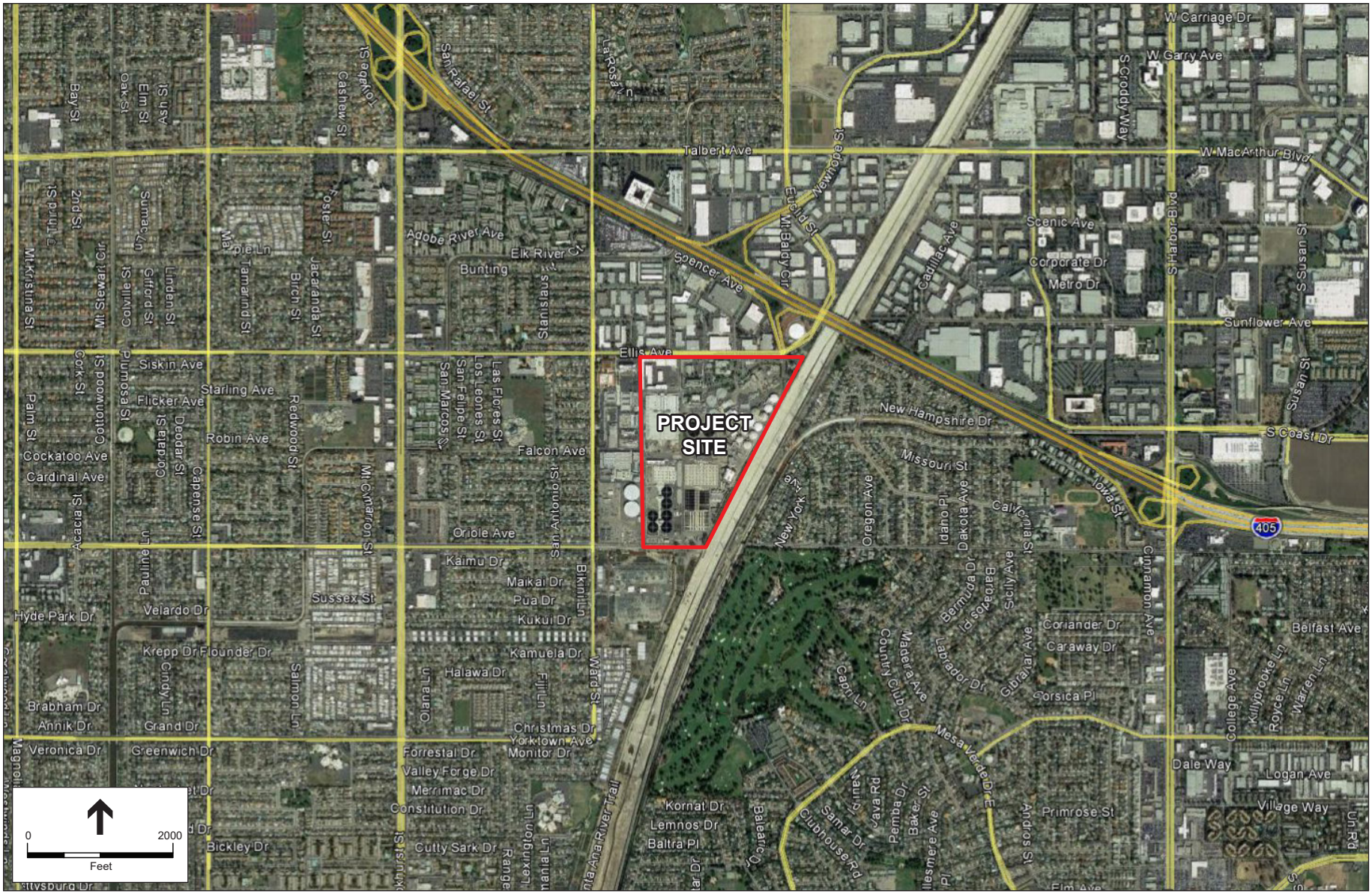
ESA personnel involved in the preparation of this report include: Amber Grady, M.A., Architectural History Program Manager and Project Director, and Christian Taylor, M.H.P., senior architectural historian and report author. Ms. Grady and Mr. Taylor meet the Secretary of the Interior's Professional Qualification Standards for architectural history. Candace Ehringer, M.A., served as Project Manager. Resumes of key personnel are provided in **Appendix A**.



SOURCE: Google Earth Pro, basemap; ESA, 2018

OCSD Biosolids Master Plan . 150626

Figure 1
Regional Location



SOURCE: UCSB

OCSD Biosolids Master Plan . 150626

Figure 2
Project Location

Historic Context

This historic context presents the history of the region and subject property, and was developed to provide a context within which identified resources will be evaluated for their historical significance.

Spanish Period (A.D. 1769-1821)

The first European presence in California came in 1542, when Juan Rodriguez Cabrillo led an expedition along the coast. Europeans did not return until 1769, when a Spanish expedition, led by Gaspar de Portolá, traveled north from San Diego in search of Monterey Bay. In July of 1769, the expedition entered what would become Orange County, arriving at the future location of the San Juan Capistrano mission. "The Portolá Expedition proceeded northward making a total of seven campsites in what would become Orange County."[1] In 1775, Father Junipero Serra established the mission at San Juan Capistrano, giving the Spanish a foothold in the area for future settlement.

During the late eighteenth and early nineteenth centuries, the Spanish Government began a land grant program awarding large tracts of land called ranchos to Spanish soldiers who helped settle the region.[2] The boundaries of these ranchos would be the main division of land throughout the Orange County area throughout the Spanish, Mexican, and early American periods. One of the earliest land grants in the area was provided to a Spanish soldier named Manuel Pérez Nieto in 1784, known as Rancho Los Nietos. The second land grant in the region was given to Juan Pablo Grijalva and José Antonia Yorba.[3] The property would become known as Rancho Santiago de Santa Ana. Yorba and Grijalva's grandson, Juan Pablo Peralta would continue to work the land after Grijalva's death in 1806.[4] The land would remain in the family through the Mexican Revolution in 1821.

Mexican Period (A.D. 1821-1848)

In 1821, Mexico was granted independence from Spain after a successful revolution. Despite the change in government, Rancho Los Nietos remained the property of the Nieto family, while Rancho Santiago de Santa Ana remained the property of Juan Pablo Grijalva's decedents. Rancho Santiago de Santa Ana experienced little change after the Mexican Revolution.[5] However, Manuel Pérez Nieto's heirs petitioned the Mexican government to partition Rancho Los Nietos. In 1834, the division of Rancho Los Nietos into six smaller properties was approved by the

1 Pamela Hallan-Gibson, *The Golden Promise: An Illustrated History of Orange County,* Windsor Publications, Inc., Northridge, CA, 1986, 17.

2 Chris Perez, Grants of Land in California Made by Spanish or Mexican Authorities, Prepared by the State Lands Commission, Boundary Investigation Unit, August 23, 1982.

3 Perez, Grants of Land in California Made by Spanish or Mexican Authorities, 30.

4 Perez, Grants of Land in California Made by Spanish or Mexican Authorities, 30.

5 Perez, Grants of Land in California Made by Spanish or Mexican Authorities, 34.

Mexican government, resulting in the formation of Rancho Las Bolsas composing of parts of present-day Huntington Beach, Westminster, Garden Grove, and Fountain Valley.[6]

American Period (A.D. 1848-present)

Hostilities between the Mexican and American governments in 1846 soon escalated into a war between the two nations. "The war itself did not have a significant impact on Orange County, although some hoped that California would be reclaimed by Mexico."[7] That would not be the case, however, the Treaty of Guadalupe Hidalgo ended the war in 1848 and resulted in Mexico ceding California to the United States. That same year, gold was discovered in California, leading to a huge influx of people from other parts of North America, and in 1850, California became a state in the United States of America.

History of the Subject Property

The subject property, located in the former Rancho Las Bolsas, remained undeveloped until 1941 when OCSD completed the initial construction of Plant No. 1. Prior to the construction of Plant No. 1, the area consisted of large agricultural fields. OCSD built Plant No. 1 to replace the original plant destroyed by flooding in 1937. Overtime, the Plant continued to expand, adding new clarifiers, digesters, and support buildings as needed to address the growing wastewater treatment needs of the surrounding community.

Settlement of Orange County and Fountain Valley (1889-1920)

When California became a state in 1850, it was divided up into twenty-seven counties. "Over the next six decades, hardly a session of the state legislature went by without a bill introduced to divide, merge, or realign the counties, taking California from its original twenty-seven counties to fifty-eight today."[8] In 1889, residents of the southern portion of Los Angeles County voted to form their own county. At the time, the state legislature held the authority to form counties and incorporate cities. Attempts to split up Los Angeles County began in 1870, when Max Strobel petitioned for the creation of Anaheim County, complaining that communities in south Los Angeles County were being ignored by their elected county representatives. "It was inconvenient to go all the way to Los Angeles to transact official business; the roads were bad, and the county had not seen fit to build any bridges in the south; and the City of Los Angeles monopolized most of the county offices, making it a veritable case of taxation without representation."[9] Prior to Strobel's efforts, the area had been sparsely populated. Beginning in 1868, the sale of former ranchos prompted the settlement of several new communities.

Although Strobel's movement to establish Anaheim County failed, additional attempts to establish a new county would follow. In 1871, a new group formed in the community of Gallatin, just outside of Downey. The Gallatin based movement advocated for the creation of Orange

6 Hallan-Gibson, *The Golden Promise,* 34.
7 Hallan-Gibson, *The Golden Promis,* 46.
8 Phil Brigandi, *Orange County Chronicles,* The History Press, Charleston, SC, 2013, 38.
9 Brigandi, *Orange County Chronicles*. 40.

County, named for Southern California's reputation as a semi-tropical paradise.[10] However, a growing rivalry between the town of Anaheim and the rapidly expanding community of Santa Ana jeopardized the Orange County bill. In 1876, supporters of the new county changed the proposed name to Santa Ana County in order to gain support from Santa Ana community leaders, but the effort failed.

The movement to establish a new county struggled over the next decade. Leaders from Anaheim had been the movement's biggest supporters. However, by 1882 they had turned to oppose separation from Los Angeles County. They would continue to fight the movement to establish a new county until 1889 when a bill to create Orange County was overwhelmingly supported by the public. "Of the 3,009 ballots cast county-wide, 2,509 voted for division and 500 voted against."[11] With the new county established, more communities settled the former ranch lands.

Suburbanization of Orange County (1941-1970)

The 1930s brought the Great Depression to Orange County, stunting the community's growth through the decade. By 1940, the County had grown to a population of 130,760 people, but still maintained its rural feel. "There were thousands of acres of natural wilderness areas in the Santa Ana Mountains, most of which had become Cleveland National Forrest, miles of open fields, acres of orange groves, and forty miles of scenic coast."[12] It would all begin to change in 1941 when the United States Army began building what would become the Santa Ana Army Air Base (SAAAB), adding thousands of soldiers to the local population.

Initially known as the United States Air Corps Replacement Training Center, SAAAB occupied 400 acres leased to the federal government for one dollar per year.[13] "The presence of the military meant growth, jobs, and economic revitalization."[14] In addition to the economic growth, the military base introduced thousands of soldiers to the mild climate of Southern California. While the base was only opened a few years (1943-1946), it would have a profound impact on the development of the area. Many soldiers who were stationed at SAAAB would return after the war, contributing to the population boom and suburbanization of Orange County in the post-war years.

> *The war changed Orange County forever. New buildings stood where beans had grown; new businesses remained permanent fixtures in downtowns. But the greatest change would come later. The war had brought hundreds of thousands of people into Orange County, however briefly. They had sampled the sunshine and had felt the ocean breezes; they had seen productive fields and growing cities. All around them they saw opportunities for a better life for themselves and their families.*[15]

10 Brigandi, *Orange County Chronicles*. 42.
11 Hallan-Gibson, *The Golden Promise*, 135.
12 Hallan-Gibson, *The Golden Promise*, 135.
13 Hallan-Gibson, *The Golden Promise*, 217-219.
14 Hallan-Gibson, *The Golden Promise*, 219.
15 Hallan-Gibson, *The Golden Promise*, 229.

The 1950s would be a decade of unprecedented population growth in Orange County. The post-war boom began in Los Angeles and spread outward as veterans returned to Southern California with their families. By 1960, the population of Orange County had grown to over one million people. The increase in population meant significant residential and commercial development. In 1950, 5,500 residential construction permits were filed in the county. "Five years later, that number had reached nearly 26,000. The total peaked again in 1962, with 33,200 permits issued."[16] The western portions along the coastline developed rapidly due to the flat open spaces and proximity to Los Angeles. Dozens of new cities were established while older communities expanded by annexing neighboring towns.

One of the new cities was Fountain Valley, which incorporated in 1957. Fountain Valley was swampland until a combination of an 1870 drought and the construction of drainage canals in the 1890s turned the swampland into prime farming land with natural springs and artesian wells, from which the city gets its name.[17] Early on, resident farmers grew field crops (beans and sugar beets), and from 1930 through the present, they grew truck crops (strawberries, cauliflower, etc.).[18] Fountain Valley experienced a boom in population like much the rest of Southern California after World War II. In the early 1960s, construction of the San Diego Freeway bisected the city and promised even more growth.

The City Council, led by the first Japanese-American Mayor in mainland United States, Jim Kanno, decreed that no parcel of land could be developed without a master plan.[19] This lead to an adoption of the city's Master Plan in 1962, before any major developments had even started.[20] Thanks to that foresight, Fountain Valley successfully transitioned from a rural community to a suburban commuter town and boasts to be one of the best planned cities in Orange County.

Sanitation Needs of Orange County (1945-1970)

The post-war era suburbanization of Orange County put great strain on various county services, including sanitation. Sanitation efforts in the county began in 1921 with the formation of the Orange County Joint Outfall Sewer (JOS), representing a combined effort between the communities of Anaheim and Santa Ana to build an outfall extending into the Pacific Ocean.[21] In 1926, the county voted on bond measures to pay for extending the outfall 3,000 feet and construction of a new screening plant and pumping station at an estimated cost of $379,000.[22]

16 Brigandi, *Orange County Chronicles,* 133.

17 Chris Haire, "A History Forgotten," *Orange County Register,* April 21, 2013, https://www.ocregister.com/2013/04/21/a-history-forgotten-how-farming-shaped-fountain-valley/, accessed January 16, 2018.

18 City History & Facts, City of Fountain Valley, California, http://www.fountainvalley.org/642/City-History-Facts, accessed January 16, 2018.

19 Haire, "A History Forgotten."

20 Haire, "A History Forgotten."

21 "Orange County Sanitation District." *History: Orange County Sanitation District*, www.ocsd.com/about-us/general-information/history#1970. Accessed 12 Sept. 2017.

22 "Face Bond Elections for Sewer," *Los Angeles Times,* March 21, 1926, E14.

However, massive flooding in the area destroyed the screening plant and pumping station in 1937.[23]

In 1941, the JOS upgraded the sewer line with a new primary treatment plant at the present location of Plant No. 1. "Major improvement urged is construction of a disposal plant which would include facilities for sedimentation, digestion and sludge drying with necessary pumps, piping and auxiliary equipment."[24] The new plant was a welcome addition to the sewer system, but it would not be enough to process sewage for Orange County's growing population. By 1947, the County was looking to upgrade its system again. "Two State officials, E. A. Reinke, chief of the Bureau of Sanitary Engineering of the State Department of Public Health and J. A. Harmon, senior sanitary engineer of the bureau, said their survey showed that in the vicinity of at least five of the six outfalls in the county samples of water have shown higher percentage of pollution than State standards for 'safe salt water bathing.'"[25] The result of the survey prompted the County Board of Supervisors to form OCSD under the Sanitary District Act of 1923. Districts 1, 5, and 6 were organized in 1947 and Districts 2, 3, 7, and 11 organized in 1948.

At the time, planning for a county-wide sewer system was already being discussed, however the County needed funding for the project. In 1949, Orange County residents voted in favor of a county-wide sanitation improvement bill worth over $8 million. Funds from the sanitation improvement bill contributed to the construction of a network of trunk sewers (**Figure 3**) and a 78-inch diameter 7,000-foot-long ocean outfall.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: Santa Ana Public Library

Figure 3
Construction of the Magnolia Trunkline, 1952

23 "Santa Ana Gets Sewer Project," *Los Angeles Times,* January 23, 1941, A9.

24 "Orange County Cities Asked to Spend $150,000 on Sewer," *Los Angeles Times,* February 15, 1940, 9.

25 "The Southland: Cities Act to Safeguard Orange County Beaches," *Los Angeles Times,* December 25, 1947, A2.

The funding also supported the construction of updates to Plant No. 1, originally constructed in 1941, and the construction of a new plant in Huntington Beach completed in May of 1954. The new Huntington Beach plant (Plant No. 2) became responsible for treating the area's industrial sewage, while the Plant in Fountain Valley (Plant No. 1) processed residential waste. This separation of wastewater between industrial and residential meant that water treated by Plant No. 1 was cleaner and could be reused by local farmers. "State and County health officials have approved those crops which by the timing of the irrigation or by their later processing will be unaffected by the bacteria that may be in the water. Experiments may show other crops, too, may be safely raised."[26] Crops approved to be irrigated with sewage effluent included lima beans, chili peppers, alfalfa, and sugar beets. However, the agricultural fields in the surrounding area were quickly being replaced with residential subdivisions. The transition from farmland to suburbia culminated in the incorporation of Fountain Valley in 1957.

While Plant No. 1 (**Figure 4**) expanded to address the growing need for wastewater treatment in the surrounding area during the late 1950s and 1960s, the OCWD began to explore water reclamation options, resuming the experimentation with reuse of sewage effluent in 1965. The OCWD built an experimental facility adjacent to the OCSD's Plant No. 1 in Fountain Valley. Today, OCWD's water reclamation plant in Fountain Valley is the largest water reclamation program in the world.[27]

26 "Farms Irrigated by Sewer Water," *Los Angeles Times,* March 31, 1957, L5.

27 Aaron Orlowski, "Orange County's Water Recycling Program Expands," *Orange County Register,* June 27, 2015.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: Orange County Sanitation District

Figure 4
Aerial View of Plant No. 1, 1966

Clean Water Act of 1972

Plant No. 1 experienced significant growth during the 1970s following passage of the Clean Water Act (CWA) by the Federal Government in 1972. The CWA established new rules regulating the "discharges of pollutants into the waters of the United States and regulating quality standards for surface waters."[28] The CWA was an extension of the Federal Water Pollution Control Act passed in 1948, resulting in the development of wastewater standards for industry and water quality standards for contaminants in surface waters. "All waters should be protected for recreational uses in or on the water and for the preservation and propagation of desirable species of aquatic life."[29] The CWA also provided local governments with the funding needed to meet the new requirements. "The Construction and renovation frenzy that ensued was the largest public works project in the country to date. By its completion, the United States had 16,000

28 "Summary of the Clean Water Act." *EPA*, Environmental Protection Agency, 7 Aug. 2017, www.epa.gov/laws-regulations/summary-clean-water-act. Accessed 15 Sept. 2017.

29 "EPA Releases Guidelines for New Water Quality Standards." *EPA*, Environmental Protection Agency, 8 Aug. 2016, archive.epa.gov/epa/aboutepa/epa-releases-guidelines-new-water-quality-standards.html. Accessed 15 Sept. 2017.

sewage treatment plants and an improved sewage treatment process."[30] While the CWA prevented the discharge of pollutants in navigable waters, a special permit could be obtained. In 1973, the Environmental Protection Agency issued the first wastewater discharge permit to the community of Riverton, Illinois. "The treatment system used by Riverton is a modified activated sludge secondary treatment system using the contact stabilization process. The plant's effluent is chlorinated before being discharged to the river."[31] Over time, more municipalities would join Riverton as permit holders. However, Congress passed the Ocean Dumping Ban Act in 1989 forcing coastal communities to develop new methods for disposing of their sludge.[32]

Wastewater Treatment Methods and Infrastructure

Wastewater treatment in the United States began to evolve significantly during the late eighteenth century as cities began to grow. Pit privies and open ditches were replaced by underground sewers, while the treatment of wastewater was mostly through dilution into receiving waters. In Europe, many communities dispersed their wastewater in nearby agricultural fields to serve as fertilizer. "However, water logging became a major problem, and the continuous expansion of the cities made it more difficult to find sufficient land nearby."[33] Experimentation with biological filters using organisms began in the United Kingdom in 1893. The first biological filter in the United States was developed in Madison Wisconsin in 1901. In 1913, a new method of treatment was developed in England called the activated sludge process. By 1916, the first activated sludge plants were being built throughout the United States in places like San Marcos, Texas, Milwaukee, Wisconsin, and Cleveland, Ohio.[34] Although the activated sludge method of wastewater treatment was the preferred option, patent litigation throughout the 1920s and 1930s stalled its development. Multiple communities throughout the United States were sued over their wastewater treatment plants during this time. "Several existing plants quickly shut down to avoid monetary fines, including the original San Marcos, Texas facility."[35] However, during the post-war years the activated sludge process would finally become the preferred approach to wastewater treatment.

The activated sludge process relies on microorganisms feeding on the contaminants in wastewater. The process results in a high-quality effluent at a low cost. "Other advantages of the activated sludge process are the low construction cost and the relatively small land requirement."[36] Wastewater treatment plants utilizing the activated sludge process consist of multiple components including aeration tanks where biological reactions occur, clarifiers where

30 Rose George, *The Big Necessity*, Metropolitan Books, New York, NY, 2008, 155.

31 "EPA Issues First Municipal Wastewater Discharge Permit in the Nation." *EPA*, Environmental Protection Agency, 8 Aug. 2016, archive.epa.gov/epa/aboutepa/epa-issues-first-municipal-wastewater-discharge-permit-nation.html. Accessed 15 Sept. 2017.

32 George, *The Big Necessity*, 155.

33 Mogens Henze, Mark C. M. van Loosdrecht, G. A. Ekama, Damir Brdjanovi, *Biological Wastewater Treatment*, IWA Publishing, London, UK, 2008, 2.

34 James E. Alleman, *The Genesis and Evolution of Activated Sludge Technology*, https://www.elmhurst.org/DocumentCenter/View/301, Accessed September 5, 2017.

35 Alleman, *The Genesis and Evolution of Activated Sludge Technology*.

36 "Explaining the Activated Sludge Process," *Pipeline: Small Community Wastewater Issues Explained to the Public*, http://www.nesc.wvu.edu/pdf/ww/publications/pipline/pl_sp03.pdf. Accessed September 15, 2017, 2.

solids are separated from the water, and a means of collecting the solids. Variations of the activated sludge process include extended aeration, sequencing batch reactors, and oxidation ditches.[37]

Regulatory Framework

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code ("PRC") section 21000, *et seq.* CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical resources. Under CEQA, a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. (PRC § 21084.1)

The *CEQA Guidelines* (Title 14 California Code of Regulations [CCR] Section 15000, *et seq.*) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record (*CEQA Guidelines* § 15064.5). The fact that a resource does not meet the three criteria outlined above does not preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1 (*CEQA Guidelines* § 15064.5(a)(4)).

A significant effect on the environment would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5(a). Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired" (*CEQA Guidelines* § 15064.5(b)(1)). According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the

[37] "Explaining the Activated Sludge Process," *Pipeline*, 4-6.

public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

Generally, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (collectively, "Standards") is considered to have mitigated its impacts to historical resources to a less-than-significant level. (*CEQA Guidelines* § 15064.5(b)(3)). Although not prescriptive and as suggested by the term "generally" as used in the *CEQA Guidelines*, the appropriate application of the Standards, or a subset thereof, requires careful consideration by a lead agency of the specific significance, characteristics, and condition of the historical resource for which impacts are being evaluated.

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1(a)). The criteria for eligibility for the California Register are based upon the National Register of Historic Places (National Register) criteria (PRC § 5024.1(c)). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register (PRC § 5024.1(d)).

Under PRC Section 5024.1(c), to be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources must generally be at least 50 years old to be considered for evaluation and inclusion in the California Register. However, historical resources less than 50 years old may also be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance (*California Code of Regulations* (CCR), Title 14, Division 3, Chapter 11.5, 4852(d)(2)).

To be eligible for the California Register, a resource must meet one of the criteria of significance listed above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible

that a historical resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but still be eligible for listing in the California Register (CCR § 4852(c)).

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register (PRC § 5024.1(d)).

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone (PRC § 5024.1(e)).

Archival Research

Methods

A records search at the California Historical Resources Information System (CHRIS) – South Central Coastal Information Center (SCCIC) was conducted on August 23, 2017, which included a review of the National Register of Historic Places and its annual updates, the California Register, the Statewide Historical Resources Inventory (HRI) database maintained by the California Office of Historic Preservation (OHP), as well as cultural resources reports on file.

Results

The results of the CHRIS-SCCIC records search conducted on August 23, 2017 indicate that no historic resources have been formally identified on or adjacent to the subject property.

Additional Research

Methods

Additional archival research conducted for this Project included:

- Review of Sanborn fire insurance maps, historical photographs, historical aerial imagery, online newspaper databases, and other published and unpublished sources.
- Review of building records obtained from OCSD.

Results

Maps and Aerial Photographs

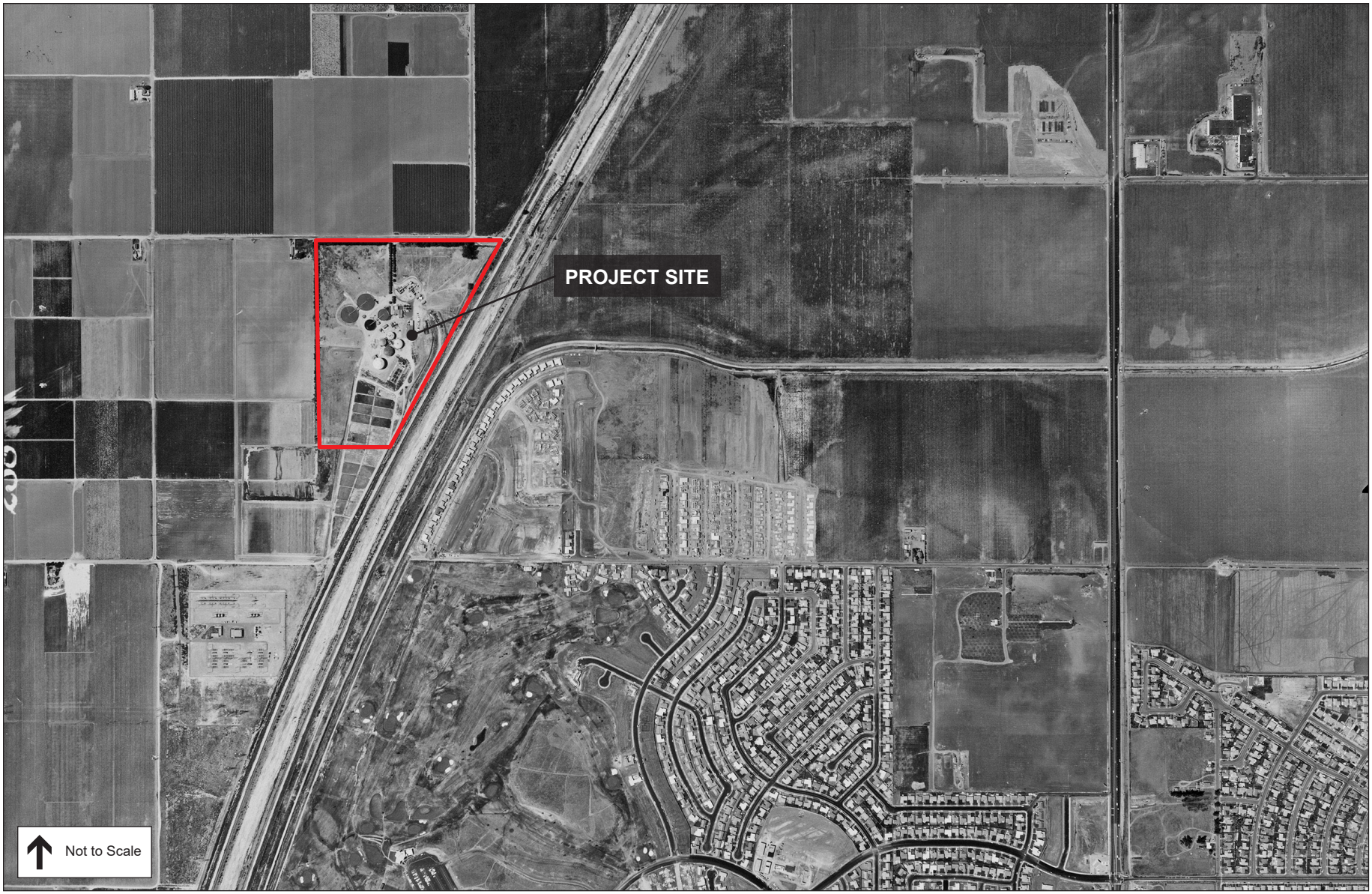
Sanborn maps were not available for the subject property because the property and surrounding area were unincorporated until the City of Fountain Valley was established in 1957 and primarily consisted of agricultural fields that were undeveloped prior to Plant No. 1's construction in 1941.

Aerial photographs of the subject property were available for the years 1927, 1938, 1947, 1952, 1953, 1960, 1966, 1968, 1972, 1978, 1994, 1995, 2002 to 2005, 2009, 2010, and 2012. The 1947 aerial image is the first to depict the early beginnings of the Plant surrounded by agricultural land (**Figure 5**). The Plant remained fairly small with few changes apparent in the 1952 and 1953 aerials photographs. The 1960 aerial image shows some of the earliest remaining features of the Plant including Primary Clarifiers 3 and 4 (**Figure 6**). Additional facilities were constructed at the Plant between 1960 and 1972 as the Plant continued to expand its operations (**Figures 7 and 8**). Between 1972 and 1978, the Plant had grown significantly, occupying a majority of the current footprint (**Figure 9**). All of the improvements constructed prior to 1973 meet the OHP's 45-year age threshold for consideration as historical resources. The remaining improvements within the subject property were constructed after 1973 and do not meet the OHP's 45-year age threshold.

SOURCE: UCSB

OCSD Biosolids Master Plan . 150626

Figure 5
Aerial View of the Subject Property, 1947



SOURCE: UCSB

OCSD Biosolids Master Plan . 150626

Figure 6
Aerial View of the Subject Property, 1960

SOURCE: UCSB

OCSD Biosolids Master Plan . 150626

Figure 7
Aerial View of the Subject Property, 1968

SOURCE: UCSB

OCSD Biosolids Master Plan . 150626

Figure 8
Aerial View of the Subject Property, 1972

OCSD Biosolids Master Plan . 150626

SOURCE: UCSB

Figure 9
Aerial View of the Subject Property, 1978

Field Survey

Methods

An intensive pedestrian survey of the subject property was conducted by ESA architectural historian Christian Taylor, M.H.P., on January 5, 2018 using survey methodology consistent with the OHP guidelines. Mr. Taylor documented existing on-site buildings and structures that meet the OHP's 45-year age threshold through the use of digital photography.

Results

The Plant consists of multiple buildings, structures, and features, which were constructed over time, allowing the OCSD to improve its water treatment capabilities. Most of the buildings, structures, and features located on the property were constructed after 1973 and do not meet the OHP's 45-year threshold for consideration as historical resources, and therefore were not documented. However, 16 buildings, structures, and features constructed between 1957 and 1972 were documented as a result of the survey and are listed below in **Table 1** and shown on **Figure 10**. Plant No. 1 was documented on California Department of Parks and Recreation (DPR) 523 forms (**Appendix X**).

TABLE 1
SURVEYED FEATURES OF OCSD PLANT NO. 1

Building Name (Year of Construction)	
Primary Clarifier 3 (1957)	Power Building 2 (1964)
Primary Clarifier 4 (1957)	Digester 7 (1964)
Digester 5 (1959)	Administration Building (1964)
Headworks 1 (1959)	Primary Clarifier 5 (1964)
Old Operations Control Center (1962)	Grit Chamber Headworks 1 (1965)
Chlorine Station ABAN (1962)	Digester 8 (1970)
Dewatering Building C (1962)	Fleet Services (1971)
Digester 6 (1962)	Human Resources (1971)

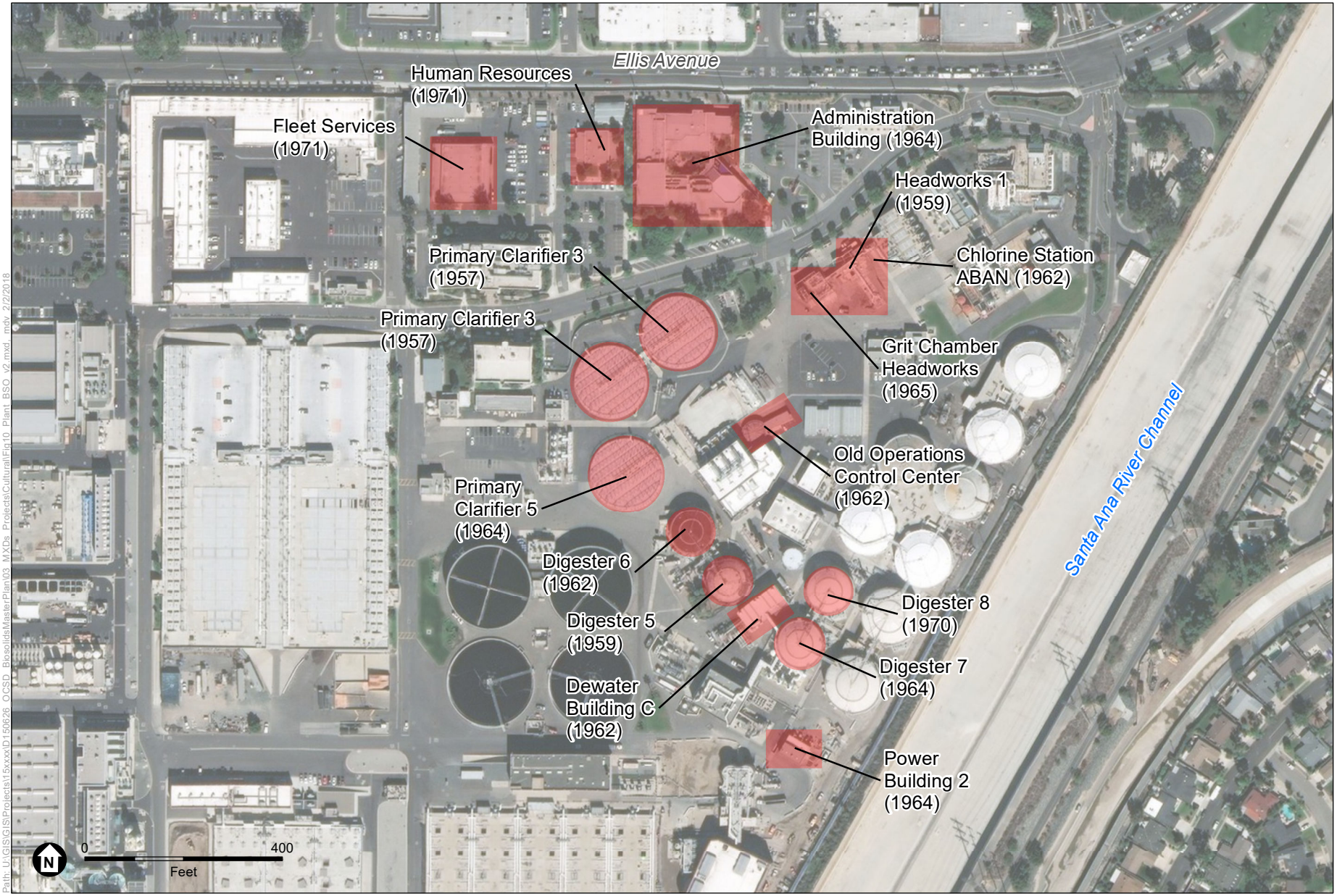
Orange County Sanitation District Building Records

Records obtained from OCSD provide a history of alterations for buildings, structures, and features constructed prior to 1973 (**Table 2**). The records do not indicate the names of architects or engineers associated with the construction of the related buildings, structures, or features. The earliest recorded alteration was the construction of Primary Clarifiers 3 and 4 in 1957. Additional alterations conducted between 1957 and 2015 vary from major reconstructions to minor exterior modifications.

TABLE 2
ORANGE COUNTY SANITATION DISTRICT BUILDING RECORDS

Building	Date	Project #	Description
Primary Clarifiers 3 and 4	1957	P1-1	Original construction project, built in 1957
	2010	P1-37	Removed dome and replaced with flat cover
Digester 5	1959	P1-2	Building constructed in 1959
	2015	P1-100	Rehabilitation with minor exterior modifications
Headworks 1	1959	P1-3	Construction of Headworks 1
Old Operations Control Center	1962	J-5A	Construction of the Operations Control Center
	1996	SP-1995-71	Slightly modified, no longer in use
Chlorine Station ABAN	1962	P1-5	Construction of the Chlorine Station
Dewatering Building C	1962	P1-7-1	Construction of Dewatering Building C
Digester 6	1962	P1-5	Construction of Digester 6
	2015	P1-100	Rehabilitation with minor exterior modifications
Power Building 2	1964	P1-9	Construction of Power Building 2
Digester 7	1964	P1-9	Construction of Digester 7
	2015	P1-100	Rehabilitation with minor exterior modifications
Administration Building	1964	J-7	Construction of the Administration Building
	1971	J-7-2	Expansion to the Administration Building
	1988	J-7-4	Expansion to the Administration Building
Primary Clarifier 5	1964	P1-11	Initial construction of Primary Clarifier 5
	2010	P1-37	Removed dome and replaced with flat cover
Grit Chamber Headworks 1	1965	P1-13	Construction of the Grit Chamber Headworks 1
Digester 8	1970	P1-14	Construction of Digester 8
	2015	P1-100	Rehabilitation with minor exterior modifications
Fleet Services	1971	J-12	Construction of Fleet Services
	1996	P1-44-3	Seismically retrofitted
Human Resources	1971	J-11	Construction of Laboratory
	1997	J-11-2	Modified to Human Resources Building

SOURCE: Orange County Sanitation District



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SOURCE: OCSD 2017; ESA 2018

OCSD Biosolids Master Plan . 150626

Figure 10

Plant 1 Buildings, Structures, and Features

ESA

Plant No. 1

The Plant No. 1 buildings, structures, and features consist mainly of digesters, clarifiers, support buildings, and processing facilities located in the northeast portion of the subject property. They represent a period of improvements made to the Plant during the late 1950s and 1960s, with a few features added in the early 1970s.

Primary Clarifiers (3, 4, and 5)

Primary Clarifiers 3 and 4 (**Figure 11**) were constructed in 1957 and Primary Clarifier 5 was added in 1964. Each of the clarifiers feature the same circular footprint. The clarifiers are large utilitarian features that occupy a majority of the subject property. They are constructed of concrete and were originally topped with geodesic dome covers. However, the dome covers were replaced with flat covers (alterations) in 2010.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 11
Primary Clarifiers 3 and 4, (view facing west)

Digesters 5, 6, 7, and 8

Digester 5, constructed in 1959, is the oldest digester currently on the Plant. Digester 6 was added three years later in 1962, followed by Digester 7 in 1964 and Digester 8 in 1970. The digesters are built out of concrete and feature identical utilitarian designs. The cylindrical digesters have circular footprints and domed roofs, lined with metal railings (**Figure 12**). According to OCSD records all of the digesters were rehabilitated in 2015 with minor exterior modifications.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 12

Digesters 7 and 8 near the east boundary of Plant No. 1 (view facing north)

Headworks 1, Chlorine Station, and Grit Chamber

Headworks 1 was constructed in 1959 while the Chlorine Station was added in 1962 and the Grit Chamber was constructed in 1965 (**Figures 13 and 14**). The facility features an irregular footprint and is utilitarian in design. It includes concrete structural elements combined with metal framing and piping related to its use as a headworks facility.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 13

View of Headworks 1, Chlorine Station, and the Grit Chamber (view facing east)

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 14

View of Headworks 1, Chlorine Station, and the Grit Chamber (view facing north)

Old Operations Control Center

The Old Operations Control Center was constructed in 1962 in the Mid-Century Modern style. The building is currently no longer in use (**Figure 15**). The irregularly shaped building is located near the center of the Plant and consists of two structures connected by a metal frame canopy. The main portion of the building consists of a circular structure built with concrete framing (**Figure 16**). The concrete framing is infilled with angled aluminum window assemblies and masonry arranged in a stacked bonding pattern. The main entry into the circular portion of the building consists of an aluminum door assembly featuring a pair of fully glazed doors and a transom located beneath the canopy. The metal framed canopy projects from the circular structure to the northeast and is topped with a stucco roof Projecting from the circular structure. A rectangular structure sits beneath the canopy and is constructed with stacked masonry. The rectangular structure features no windows and is accessed by a pair of metal doors at the northeast end or a single metal door on the east elevation. OCSD building records indicate that the building was modified in 1996. However, the nature of the modifications is unknown.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 15
Old Operations Control Center (view facing west)

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 16
Close-up view of Old Operations Control Center (view facing south)

Dewatering Building C (Needs Photo)

Constructed in 1962, Dewatering Building C is a utilitarian structure with a rectangular footprint and flat roof. The exterior walls of Dewatering Building C consist vertical metal siding (**Figure 17**). The southeast elevation appears to have a small addition with stucco exterior. Dewatering Building C's fenestration is limited to a single metal framed window on the second floor level of the stucco addition (alteration). Pedestrian doorways are located on the south and east elevations while four large roll-up garage doors are located along the building's west elevation.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 17
Dewatering Building C (view facing north)

Power Building 2

Power Building 2 was added to the Plant in 1964. The building is a simple utilitarian structure with a rectangular footprint and stepped flat roof (**Figure 18**). It is constructed out of concrete and features metal railings along its stepped roof line. The primary entry to the building is located on the west elevation and consists of a single metal door. Other features associated with building consist of metal ladders, vents, and ducting.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 18
Power Building 2 (view facing south)

The Administration Building

The Administration Building was originally constructed in 1964 (**Figure 19**). It is located near the north boundary of the Plant and features an irregular footprint with a modern contemporary architectural style (**Figure 20**). The building consists of a flat roof line and is clad with scored concrete exterior walls. Other features include a metal framed entry and windows. In 1971, the building was expanded with a large addition to its west (rear) elevation. The building was remodeled and expanded again in 1988 with a large addition to the south elevation, creating a central courtyard area.

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: Orange County Sanitation District

Figure 19
Historical photo of the Administration Building, 1964

Orange County Sanitation District Plant No. 1 – 150626.00

SOURCE: ESA 2018

Figure 20
Administration Building's primary elevation (view facing west)

Fleet Services

The Fleet Services building is a simple rectangular, utilitarian building constructed in 1971 (**Figure 21**). In 1996, the building was seismically retrofitted. The building is used for the maintenance of the Plant's vehicles and consists of a large garage space. The garage space is surrounded by exterior maintenance bays located beneath wooden canopies (**Figure 22**). The building features a flat roof and concrete exterior walls. Large roll-up garage doors dominate the north and south elevations. Fenestration consists of two rows of aluminum framed windows on the south elevation.

Orange County Sanitation District Plant No. 1 – 150626.00
SOURCE: ESA 2018

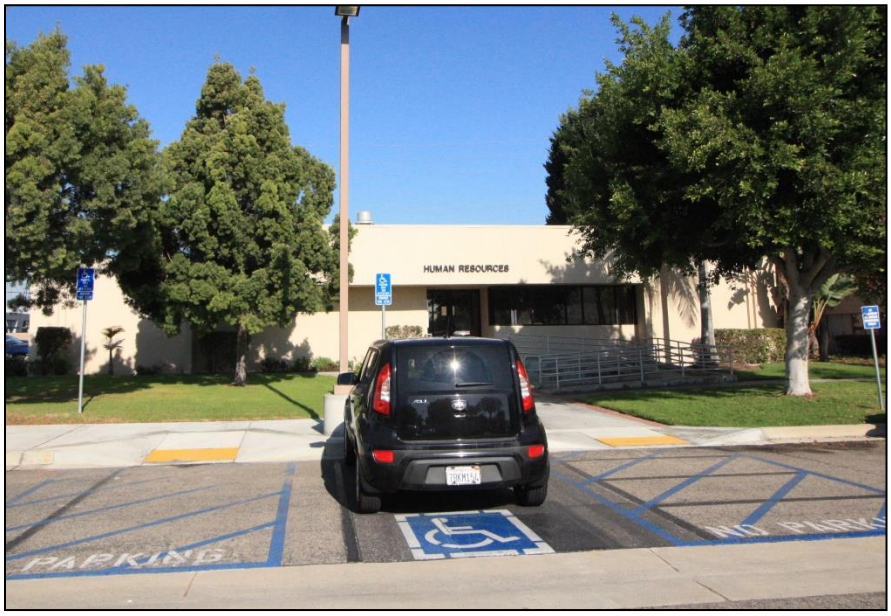
Figure 21
Primary elevation of the Fleet Services building (view facing north)

Orange County Sanitation District Plant No. 1 – 150626.00
SOURCE: ESA 2018

Figure 22
Vehicle stalls along Fleet Services exterior (view facing west)

Human Resources Building

The Human Resources Building was constructed in 1971 and originally served as the Plant's laboratory. In 1997, the building was remodeled and modified to house offices for the human resources department. The building is a simple rectangular structure with stucco exterior cladding (**Figure 23**). The primary elevation faces south toward the interior of the Plant and is fronted by a small landscaped parking lot. Concrete steps and a concrete ramp lead to the primary entrance, which consists of a pair of metal framed, fully glazed doors.



Orange County Sanitation District Plant No. 1 – 150626.00
SOURCE: ESA 2018

Figure 23
Human Resources building primary elevation (view facing north)

Significance Evaluation

OCSD Plant No. 1 was evaluated as a historic district for listing in the California Register under the four criteria listed in Public Resources Code Section 5024.1(c). The Plant was originally constructed in 1941 when Orange County was beginning to experience significant growth. However, none of the buildings or features related to the original plant remain on the property today. Over time, the Plant expanded to accommodate the County's increasing sanitation needs. In 1949, residents of Orange County approved a bond measure resulting in funding for the expansion of the Plant and the construction of a new plant in Huntington Beach (Plant No. 2). Plant No. 1 consists of numerous buildings, structures, and features associated with wastewater treatment, with construction dates ranging between 1957 and 2015. Of the numerous buildings, structures, and features, 16 meet the OHP's 45-year age threshold for consideration as historical resources. These buildings, structures, and features reflect the second period of Plant No. 1's development after Orange County residents voted in favor of a county-wide sanitation improvement bill.

Of the16 historic aged buildings and features documented on the subject property, one building, the Old Operations Control Building, demonstrated architectural merit for further consideration as a historical resource. Originally built in 1962, the Old Operations Control Building was designed in the Mid-Century style. However, a closer examination of the building and its design revealed a simplistic approach to the Mid-Century style with the use of common materials. The unique shape and design of the building do not appear to have any significant relationship to its use as an operations control building. While its unique round shape might have given operators a 360-degree view of the plant, it was surrounded by large clarifiers and digesters, which would have obstructed views. Furthermore, there is no known record of the architect and there are better examples of Mid Century style architecture featuring circular footprints, such as the Chemosphere located in the Hollywood Hills, designed by John Lautner in 1960. The Old Operations Control Building was not likely to have influenced other similar designs that followed its construction. The rest of the identified buildings, structures, and features lack distinction for individual consideration of eligibility. However, together they have the potential for consideration as a historic district.

Criterion 1: Events

Under Criterion 1, a resource is eligible for listing in the California Register if it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (PRC § 5024.1(c)(1)). When the OCSD's Plant No. 1 was constructed in 1941, it was surrounded by undeveloped agricultural land. Throughout the 1940s, the Plant remained small with few significant changes. In 1949, Orange County passed legislation allotting approximately $8,000,000 to improve the Plant's facilities while also constructing a new plant in Huntington Beach (Plant No. 2) in order to accommodate the growing population. Between 1950 and 1960, Orange County's population grew to over one million people. The area experienced rapid suburbanization with the construction of new tract homes and commercial development. With the increasing population came a need for expanded social and government services, which were met by the rapid construction of civic and institutional facilities like the wastewater treatment plant on the subject property.

Orange County was first settled as early as the 1860s and became its own county in 1889, approximately fifty years before the Plant was constructed. Therefore, the Plant not associated with the establishment of Orange County. Further, none of the original features related to the Plant's initial construction (1941) remain on the site today. The buildings, structures, and features surveyed on Plant No. 1 date from 1957 to 1971. They are associated with the post-war period of development for Fountain Valley and Orange County. The earliest remaining features are Primary Clarifiers 3 and 4 (1957), which were constructed as part of the Plant's expansion in the late 1950s following the passage of the funding bill in 1949. However, the expansion of Plant No. 1 occurred in the midst of the area's suburbanizing phenomenon and, therefore, its construction does not appear to have stimulated a development trend in the area nor is it representative of a significant pattern of development, but is rather a reaction to an event stimulated by the area's economic growth. Several government facilities were constructed throughout Orange County in response to the growing need for services, including fire and police stations, water and power facilities, and new schools. The improvements to Plant No. 1 in 1957 and beyond did not play a

more significant role in the post-war development of the area more than any of these other facilities and therefore, do not possess a significant association to be considered eligible under Criterion 1.

Based on the research of historical themes related to Plant No. 1, it does not appear to have a significant association with events in wastewater treatment history, with the settlement of Orange County or Fountain Valley, or with any other significant events contributing to the broad patterns of California's history and cultural heritage. **Therefore, Plant No. 1 is does not appear to be eligible for listing in the California Register under Criterion 1.**

Criterion 2: Significant Persons

Under Criterion 2, a resource is eligible for listing in the California Register if it is associated with the lives of persons important in our past (PRC § 5024.1(c)(2)). Research of Plant No. 1 and the OCSD did not reveal any associations with specific personages significant to national, state, or local history. Research did not identify any other significant figures in history that were associated with the Plant. **Therefore, Plant No 1 does not appear to be eligible for listing in the California Register under Criterion 2.**

Criterion 3: Design/Construction

Under Criterion 3, a resource is eligible for inclusion in the California Register if it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values (PRC § 5024.1(c)(3)). Plant No. 1 was originally constructed in 1941. However, none of the original wastewater treatment facilities remain on the site today. When constructed, the Plant employed the activated sludge method of wastewater treatment. Over time, the Plant added more clarifiers and digesters, as well as support facilities to accommodate the increasing amount of wastewater requiring treatment. The activated sludge method of wastewater treatment was first used in the United States in 1916. However, the method did not gain popularity among municipalities until the post-war era, due to patent litigation throughout the 1920s and 1930s. The activated sludge method quickly became the preferred method of wastewater treatment because the plants were cheap and easy to build. As many communities were experiencing rapid growth, the activated sludge plant was the preferred treatment approach to accommodate growing populations. Plant No. 1 does not appear to be a significant example of the activated sludge plant. It was originally constructed nearly twenty-five years after the method was first used in the United States and there are no primary or secondary historical sources indicating that the facilities located at Plant No. 1 represent any advancements in the technology. Plant No. 1 is a common example of the activated sludge plant and does not embody the distinctive characteristics of a type, period, region, or method of construction. It is not associated with a significant architect or engineer, and does not represent the work of an important creative individual nor possesses high artistic values. **Therefore, Plant No. 1 does not appear to be eligible for listing in the California Register under Criterion 3.**

Criterion 4: Data Potential

Under Criterion 4, a resource is eligible for inclusion in the California Register if it has yielded, or may be likely to yield, information important in prehistory or history (PRC § 5024.1(c)(4)). While most often applied to archaeological districts and sites, Criterion 4 can also apply to buildings, structures, and objects that contain important information. Plant No. 1 does not appear to yield significant information that would expand our current knowledge or theories of design, methods of construction, operation, or other information that is not already known. **Therefore, Plant No. 1 does not appear to be eligible for listing in the California Register under Criterion 4.**

Integrity

The California Register recognizes a property's integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. Eligible properties should retain several, if not most, of these aspects. The California Register also requires that a resource retain sufficient integrity to convey its significance, and the property must retain the essential physical features that enable it to convey its historical identity. Integrity is based on significance and understanding why a property is important. Since Plant No. 1 was not identified as significant under any of the applicable national or state criteria, an integrity analysis was not conducted.

Conclusions

Of the16 historic aged buildings and features documented on the subject property, one building, the Old Operations Control Building, demonstrated architectural merit for further consideration as a historical resource. The Old Operations Control Building constructed in 1962, possesses elements of the Mid-Century style of architecture. However, its design and use of common materials make it a rudimentary example of the Mid-Century. The unique shape and design of the building do not appear to have any significant relationship to its use as an operations control building. Therefore, it does not appear to be an excellent example of its building type. The remaining buildings, structures, and features identified by the survey lack distinction for individual consideration of eligibility. However, together they are associated with the OCSD's use of the site as a wastewater treatment plant and were evaluated as a historic district.

Upon conclusion of the evaluation of Plant No. 1's evaluation as a historic district, consisting of multiple buildings, structures, and features associated with the commonly used activated sludge method of wastewater treatment, it is recommended not eligible for listing in the California Register. While the Plant's expansion in the 1950s and 1960s was associated with the post-war development of Orange County and Fountain Valley, the Plant was one of many municipal services constructed in the area to support the growing population and suburban development. The Plant is a common example of the activated sludge treatment plant popular among growing suburban communities during the post-war era. As such, Plant No. 1 does not qualify as a historical resource under the California Environmental Quality Act (CEQA).

No historical resources have been identified in the surrounding area. Since Plant No. 1 was not found eligible as a historical resource and no historical resources have been identified in the surrounding area, no further work or mitigation is recommended for the subject property.

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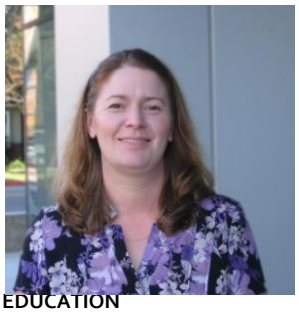
Appendix A
Personnel



Amber L. Grady

Senior Architectural Historian

EDUCATION

M.A., Historic Preservation, Savannah College of Art & Design, Savannah, GA

B.A., Interior Design with a minor in Art History, California State University, Chico

16 YEARS EXPERIENCE

PROFESSIONAL AFFILIATIONS

California Preservation Foundation

Society of Architectural Historians

Amber Grady is an expert in NEPA, CEQA, and Section 106 of the NHPA compliance with over 16 years of experience in cultural resources management. Amber has extensive experience in California architectural history with an emphasis on northern California. Her cultural resources management experience includes archival research, historic building and structure surveys and evaluations, and cultural resources documentation for NEPA and CEQA projects ranging from single building evaluations to district-wide surveys. Previously, Amber served as the Cultural Resources Manager for the State of California for the California Army National Guard (CA ARNG). At the CA ARNG Amber managed the cultural resources program, which included the management of over 100 archaeological sites as well as the State's historic armories and supervising three full time archaeologists. Prior to joining the CA ARNG Amber worked for the California Energy Commission as an Architectural Historian where she worked on a variety of energy project including one of the largest solar projects in California as the Cultural Resources lead. Prior to that Amber worked as an Architectural Historian and Project Manager foranother employer on a variety of projects throughout California and Nevada completing project for City's, school districts, and private sector clients. Amber began her career in the public sector working as a planner for both the County of Santa Clara and the City and County of San Francisco. Amber's expertise includes all phases of environmental compliance from documentation to compliance during construction.

Relevant Experience

260 E San Antonio Road Local Landmark Evaluation, Long Beach, CA. ESA evaluated the property for City of Long Beach Local Landmark status. Amber was the Lead Architectural Historian on the project, who was responsible for the research, survey, evaluation, and report completion.

VIP Records Sign, Long Beach, CA. *Senior Architectural Historian.* ESA evaluated the property for City of Long Beach Local Landmark status. Amber was the Lead Architectural Historian on the project, who was responsible for the research, survey, evaluation, and report completion.

Fly DC Jets Sign, Long Beach, CA. *Senior Architectural Historian.* ESA evaluated the property for City of Long Beach Local Landmark status. Amber was the Lead Architectural Historian on the project, who was responsible for the research, survey, evaluation, and report completion.

Los Angeles Unified School District (LAUSD) President Elementary School Historic Resources Evaluation, Harbor City, CA. *Senior Architectural Historian*. This is one of many historic resources evaluations that ESA has done for LAUSD. Amber assisted in the completion of the Historic Resources Evaluation report, which will be used in support of the Environmental Compliance documents.

LAUSD 6th Avenue Elementary School, Los Angeles, CA. *Senior Architectural Historian*. This is one of many historic resources evaluations that ESA has done for LAUSD. Amber assisted in the completion of the Historic Resources Evaluation report, which will be used in support of the Environmental Compliance documents.

LAUSD Thomas Jefferson High School Comprehensive Modernization Project, Los Angeles, CA. *Senior Architectural Historian.* ESA is in the process of preparing an IS/MND for this project. Thomas Jefferson High School is eligible for the National Register of Historic Places. In addition to writing the Cultural Resources portion of the IS/MND Amber is consulting with LAUSD and their architectural/construction team to design their project to avoid impacts to the character-defining features of the campus.

City of Sacramento, Swanston Station Transit Village Specific Plan EIR, Sacramento, CA. The Swanston Station Transit Village Plan (SSTVP) was prepared to implement transit-oriented development around the Swanston Light Rail Station in Sacramento's North Sacramento Community Plan Area by providing goals, policies and objectives, and implementation measures that will guide land use and development decisions around the station for 20 years. A series of concepts to construct an intermodal transit center linking the light rail service with bus service at the Swanston Station for the Sacramento Regional Transit District was developed. Amber was responsible for preparing the cultural resources and visual quality sections of the EIR.

California High-Speed Rail Project, Environmental Compliance for San Francisco to San Jose Segment, CA. *Senior Architectural historian, Topic Leader for Cultural Resources, Task Leader for Historic Architecture.* Amber was the Senior Architectural Historian on the project as well as the Topic Leader for Cultural Resources. Topic leader duties included coordinating the recording/evaluating efforts for Archaeological, Historic Architectural, and Paleontological resources. As the Senior Architectural Historian Amber and her team surveyed over 6,000 buildings/structures resulting in the evaluation of over 300 for National Register of Historic Places (National Register) and California Register of Historical Resources (California Register) eligibility.

Rio Mesa Solar Project. *Cultural Resources Lead/Built Environment Specialist.* The Rio Mesa Solar Electric Generating Facility consisted of two 250-megawatt solar concentration thermal power plants situated on the Palo Verde Mesa in Riverside County, California. A common facilities area included a combined administration, control, and maintenance facilities, a water treatment facility, and switchyard. The project total area, including the shared facilities and gen-tie line, was approximately 3,960 acres. Amber was responsible for coordinating the work of 3-4 staff and completing the built environment analysis of the Cultural Resources Section of the Staff Assessment.

Christian Taylor

Associate Architectural Historian

EDUCATION

Master's Degree, Historic Preservation, University of Southern California, Los Angeles

B.A., History, University of Oklahoma, Norman

3 YEARS EXPERIENCE

Christian Taylor is a historic resources specialist with academic and professional experience in assessing historic structures and contributing to California Environmental Quality Act (CEQA)-level documents. With completion of his master's degree imminent, Christian will continue to hone his skills in management of rehabilitation and restoration projects, preparation of documentation of historic contexts, and the use of non-invasive material investigation methods.

Representative Experience

Working for the California Department of Parks & Recreation (DPR), restoration contractors, and environmental consultants, Christian has become versed in the research, writing, and assessment of historic resources from the public and private perspective.

Serving first as a history intern and then interpretive specialist for the DPR, Christian served as the lead representative for the Crystal Cove State Historic Park during the second phase of the cottage restoration project program. His primary role was to liaise with contractors to ensure the project met both the Parks Department and the Secretary of the Interior's Standards.

Also with the DPR, Christian worked alongside resident historians to organize the contributing documentation and assist with the historic landscape report documenting La Purisima Mission's structures and their significance in relation to the original restoration work done in the 1930s.

Christian also familiarized himself with the historic restoration field through the preparation of thousands of pages of documentation associated with the Wilshire Temple and Atascadero City Hall projects. Christian has performed architectural history research, survey and assessment work for the Hermosa Beach General Plan Update and the Capitol Mills project in Los Angeles, and assisted with historic resources assessments for a commercial property and an education center in West Hollywood as well as multiple residential properties in Venice and Los Angeles.

Appendix B
DPR 523 Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code

Other Listings
Review Code | Reviewer | Date

 ***Resource Name or #:** Orange County Sanitation District Plant No. 1

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Orange County

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Newport Beach **Date:** 1965 (photorevised 1981) **T** 6 South; **R** 10 East; Unsectioned; S.B. **B.M.**

c. Address: 10844 Ellis Avenue City: Fountain Valley Zip: 92708

d. UTM: Zone: 11; 411216.39 mE/ 3722562.44mN (approximate center of Plant No. 2)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 10 feet amsl

The Orange County Sanitation District Plant No. 1 is located 10844 Ellis Avenue in Fountain Valley, California, approximately 0.11 miles south of Interstate 405.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The resource is a historic period district associated with the Orange County Sanitation District Plant No. 1. The district is comprised of 16 buildings, structures, and features constructed between 1957 and 1971 all located within the present day boundary of the Plant No. 1 facility.

***P3b. Resource Attributes:** (List attributes and codes) HP8: Industrial Buildings

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Overview of primary clarifiers; IMG_7829; 8/18/17

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

***P8. Recorded by:** (Name, affiliation, and address) C. Taylor
ESA
626 Wilshire Blvd, Suite 1100
Los Angeles, CA 90017

P9. Date Recorded: 8/18/2017

***P10. Survey Type:** (Describe)
Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Taylor, Christian, *Orange County Sanitation District Plant No. 1 Historic Resources Assessment,* prepared for the Orange County Sanitation District by Environmental Science Associates, February 2018.

***Attachments:** ☐NONE ■Location Map ■Sketch Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

D1. Historic Name: Orange County Sanitation Plant No. 1 **D2.** Common Name: Orange County Sanitation Plant No. 1

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

Plant No. 1 consists of numerous buildings, structures, and features associated with wastewater treatment, with construction dates ranging between 1957 and 2015. Of the numerous buildings, structures, and features, 16 meet the OHP's 45-year age threshold for consideration as historical resources. See the attached continuation sheet for a list of 16 contributing buildings.

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The resource boundary includes the entirety of the Orange County Sanitation District Plant No. 1, which is bounded by Ellis Avenue to the north, the Orange County Water District facility to west, and the Santa Ana River Channel to the east, and Garfield Avenue to the south.

***D5. Boundary Justification:**

The district boundary includes the entirety of the Orange County Sanitation District Plant No. 1 because Plant provides the current setting for the 16 contributing buildings, structures, and features. Furthermore, although many of the structures within the Plant do not meet the California Office of Historic Preservation's 45-year age threshold for listing as a historical resource, these resources may be found to be contributing elements to the district as time goes on and they eventually meet the 45-year threshold.

D6. Significance: Theme post-World War II development; Sanitation
Area Fountain Valley and Orange County **Period of Significance** 1941-1973
Applicable Criteria N/A
(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

OCSD Plant No. 1 was evaluated as a historic district for listing in the California Register under Criteria 1-4. The Plant was originally constructed in 1941 when Orange County was beginning to experience significant growth. However, none of the buildings or features related to the original plant remain on the property today. Over time, the Plant expanded to accommodate the County's increasing sanitation needs. In 1949, residents of Orange County approved a bond measure resulting in funding for the expansion of the Plant and the construction of a new plant in Huntington Beach (Plant No. 2). Plant No. 1 consists of numerous buildings, structures, and features associated with wastewater treatment, with construction dates ranging between 1957 and 2015. Of the numerous buildings, structures, and features, 16 meet the OHP's 45-year age threshold for consideration as historical resources. These buildings, structures, and features reflect the second period of Plant No. 1's development after Orange County residents voted in favor of a county-wide sanitation improvement bill.

See the attached continuation sheet for the remainder of the Plant No. 1 significance discussion

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

See continuation sheet

***D8. Evaluator:** Christian Taylor, M.H.P. **Date:** 8/18/2017

Affiliation and Address: ESA, 626 Wilshire Blvd., Suite 1100, Los Angeles, CA 90017

D3. Description Continued:

SURVEYED FEATURES OF OCSD PLANT NO. 1

Building Name (Year of Construction)	
Primary Clarifier 3 (1957)	Power Building 2 (1964)
Primary Clarifier 4 (1957)	Digester 7 (1964)
Digester 5 (1959)	Administration Building (1964)
Headworks 1 (1959)	Primary Clarifier 5 (1964)
Old Operations Control Center (1962)	Grit Chamber Headworks 1 (1965)
Chlorine Station ABAN (1962)	Digester 8 (1970)
Dewatering Building C (1962)	Fleet Services (1971)
Digester 6 (1962)	Human Resources (1971)

D6. Significance Continued:

Of the16 historic aged buildings and features documented on the subject property, one building, the Old Operations Control Building, demonstrated architectural merit for further consideration as a historical resource. Originally built in 1962, the Old Operations Control Building was designed in the Mid-Century style. However, a closer examination of the building and its design revealed a simplistic approach to the Mid-Century style with the use of common materials. The unique shape and design of the building do not appear to have any significant relationship to its use as an operations control building. While its unique round shape might have given operators a 360-degree view of the plant, it was surrounded by large clarifiers and digesters, which would have obstructed views. Furthermore, there is no known record of the architect and there are better examples of Mid Century style architecture featuring circular footprints, such as the Chemosphere located in the Hollywood Hills, designed by John Lautner in 1960. The Old Operations Control Building was not likely to have influenced other similar designs that followed its construction. The rest of the identified buildings, structures, and features lack distinction for individual consideration of eligibility. However, together they have the potential for consideration as a historic district.

Under Criterion 1, a resource is eligible for listing in the California Register if it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage (PRC § 5024.1(c)(1)). When the OCSD's Plant No. 1 was constructed in 1941, it was surrounded by undeveloped agricultural land. Throughout the 1940s, the Plant remained small with few significant changes. In 1949, Orange County passed legislation allotting approximately $8,000,000 to improve the Plant's facilities while also constructing a new plant in Huntington Beach (Plant No. 2) in order to accommodate the growing population. Between 1950 and 1960, Orange County's population grew to over one million people. The area experienced rapid suburbanization with the construction of new tract homes and commercial development. With the increasing population came a need for expanded social and government services, which were met by the rapid construction of civic and institutional facilities like the wastewater treatment plant on the subject property.

Orange County was first settled as early as the 1860s and became its own county in 1889, approximately fifty years before the Plant was constructed. Therefore, the Plant not associated with the establishment of

Orange County. Further, none of the original features related to the Plant's initial construction (1941) remain on the site today. The buildings, structures, and features surveyed on Plant No. 1 date from 1957 to 1971. They are associated with the post-war period of development for Fountain Valley and Orange County. The earliest remaining features are Primary Clarifiers 3 and 4 (1957), which were constructed as part of the Plant's expansion in the late 1950s following the passage of the funding bill in 1949. However, the expansion of Plant No. 1 occurred in the midst of the area's suburbanizing phenomenon and, therefore, its construction does not appear to have stimulated a development trend in the area nor is it representative of a significant pattern of development, but is rather a reaction to an event stimulated by the area's economic growth. Several government facilities were constructed throughout Orange County in response to the growing need for services, including fire and police stations, water and power facilities, and new schools. The improvements to Plant No. 1 in 1957 and beyond did not play a more significant role in the post-war development of the area more than any of these other facilities and therefore, do not possess a significant association to be considered eligible under Criterion 1.

Under Criterion 2, a resource is eligible for listing in the California Register if it is associated with the lives of persons important in our past (PRC § 5024.1(c)(2)). Research of Plant No. 1 and the OCSD did not reveal any associations with specific personages significant to national, state, or local history. Research did not identify any other significant figures in history that were associated with the Plant. Therefore, Plant No 1 does not appear to be eligible for listing in the California Register under Criterion 2.

Under Criterion 3, a resource is eligible for inclusion in the California Register if it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values (PRC § 5024.1(c)(3)). Plant No. 1 was originally constructed in 1941. However, none of the original wastewater treatment facilities remain on the site today. When constructed, the Plant employed the activated sludge method of wastewater treatment. Over time, the Plant added more clarifiers and digesters, as well as support facilities to accommodate the increasing amount of wastewater requiring treatment. The activated sludge method of wastewater treatment was first used in the United States in 1916. However, the method did not gain popularity among municipalities until the post-war era, due to patent litigation throughout the 1920s and 1930s. The activated sludge method quickly became the preferred method of wastewater treatment because the plants were cheap and easy to build. As many communities were experiencing rapid growth, the activated sludge plant was the preferred treatment approach to accommodate growing populations. Plant No. 1 does not appear to be a significant example of the activated sludge plant. It was originally constructed nearly twenty-five years after the method was first used in the United States and there are no primary or secondary historical sources indicating that the facilities located at Plant No. 1 represent any advancements in the technology. Plant No. 1 is a common example of the activated sludge plant and does not embody the distinctive characteristics of a type, period, region, or method of construction. It is not associated with a significant architect or engineer, and does not represent the work of an important creative individual nor possesses high artistic values. Therefore, Plant No. 1 does not appear to be eligible for listing in the California Register under Criterion 3.

Under Criterion 4, a resource is eligible for inclusion in the California Register if it has yielded, or may be likely to yield, information important in prehistory or history (PRC § 5024.1(c)(4)). While most often applied to archaeological districts and sites, Criterion 4 can also apply to buildings, structures, and objects that contain important information. Plant No. 1 does not appear to yield significant information that would expand our current knowledge or theories of design, methods of construction, operation, or other information that is not already known. Therefore, Plant No. 1 does not appear to be eligible for listing in the California Register under Criterion 4.

Of the16 historic aged buildings and features documented on the subject property, one building, the Old Operations Control Building, demonstrated architectural merit for further consideration as a historical

resource. The Old Operations Control Building constructed in 1962, possesses elements of the Mid-Century style of architecture. However, its design and use of common materials make it a rudimentary example of the Mid-Century. The unique shape and design of the building do not appear to have any significant relationship to its use as an operations control building. Therefore, it does not appear to be an excellent example of its building type. The remaining buildings, structures, and features identified by the survey lack distinction for individual consideration of eligibility. However, together they are associated with the OCSD's use of the site as a wastewater treatment plant and were evaluated as a historic district.

Upon conclusion of the evaluation of Plant No. 1's evaluation as a historic district, consisting of multiple buildings, structures, and features associated with the commonly used activated sludge method of wastewater treatment, it is recommended not eligible for listing in the California Register. While the Plant's expansion in the 1950s and 1960s was associated with the post-war development of Orange County and Fountain Valley, the Plant was one of many municipal services constructed in the area to support the growing population and suburban development. The Plant is a common example of the activated sludge treatment plant popular among growing suburban communities during the post-war era. As such, Plant No. 1 does not qualify as a historical resource under the California Environmental Quality Act (CEQA).

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_____ “County Agency Seeks $200,000 U.S. Grant,” Los Angeles Times, July 29, 1965.

_____ “5-Mile Ocean Outfall Nearing Completion,” Los Angeles Times, December 17, 1970.

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“Summary of the Clean Water Act.” EPA, Environmental Protection Agency, 7 Aug. 2017, Web. 15 Sept. 2017.

Additional Photographs

Primary Clarifiers 3 and 4, view facing west (ESA, 2018)

Digesters 7 and 8 near the east boundary of Plant No. 1, view facing north (ESA, 2018)

View of Headworks 1, Chlorine Station, and the Grit Chamber, view facing east (ESA, 2018)

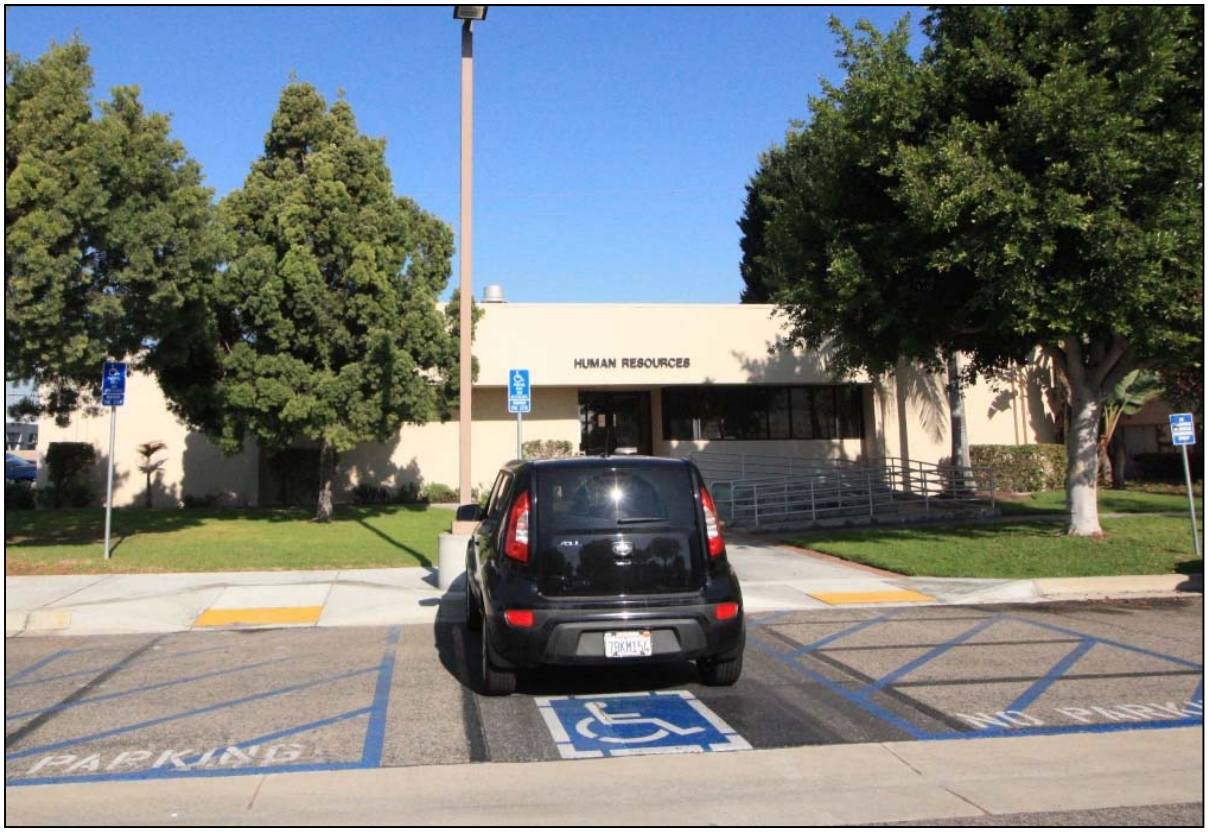
Old Operations Control Center, view facing west (ESA, 2018)

Dewatering Building C (view facing north) (ESA, 2018)

Power Building 2, view facing south (ESA, 2018)

Administration Building's primary elevation, view facing west (ESA, 2018)

Primary elevation of the Fleet Services building, view facing north (ESA, 2018)



Human Resources building primary elevation, view facing north (ESA, 2018)

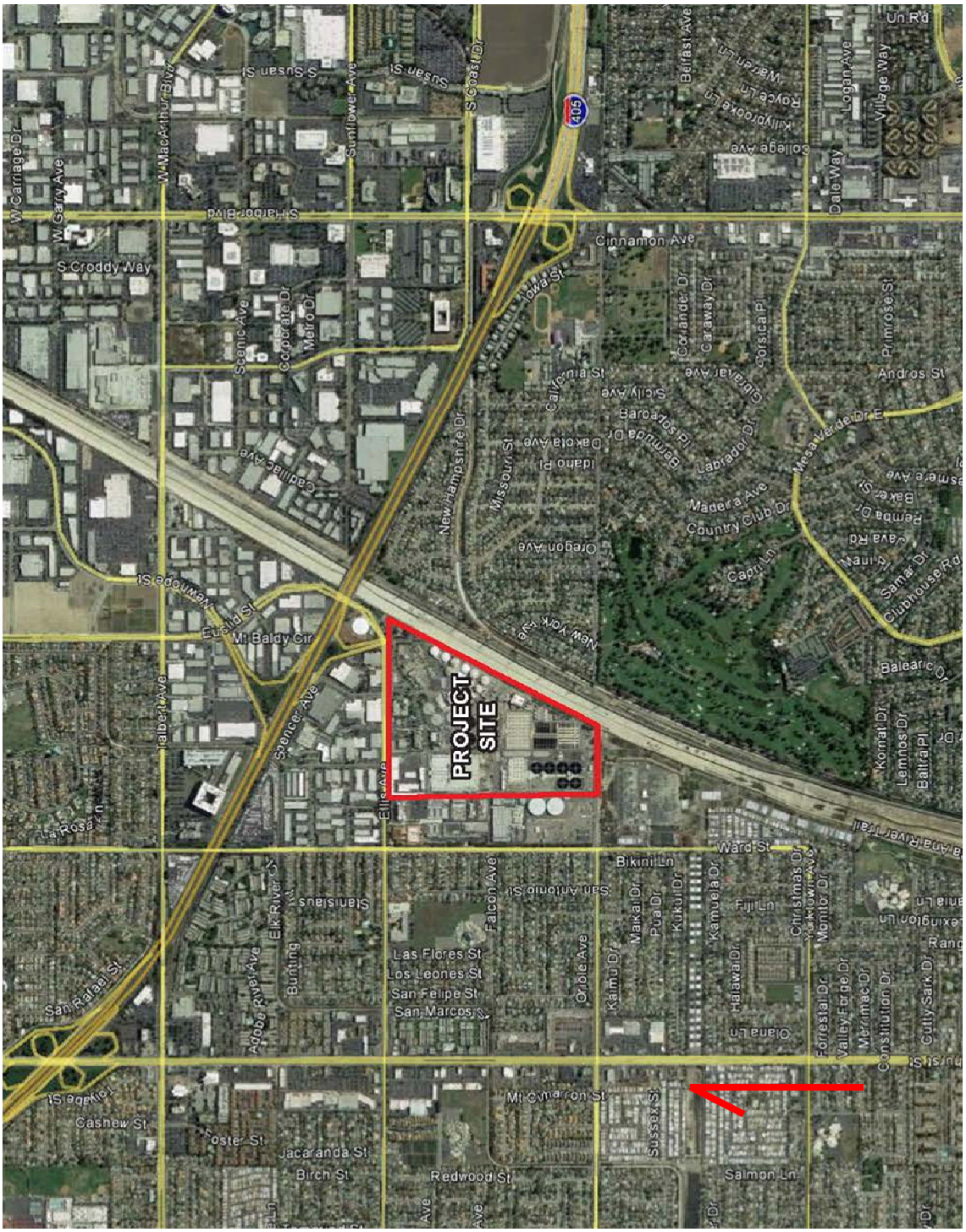
State of California -- Natural Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI#
Trinomial

***Resource Name or #** (Assigned by recorder) Orange County Sanitation Plant 1

***Map Name:** Orange County Sanitation Plant Location Map ***Scale:** 1:200 ***Date of map:** **February 1, 2018**



Final

ORANGE COUNTY SANITATION DISTRICT PLANT NO. 2

Historical Resources Assessment

Prepared for
Orange County Sanitation District

February 2018

ESA

Final

ORANGE COUNTY SANITATION DISTRICT PLANT NO. 2

Historical Resources Assessment

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

February 2018

Project Director:
Margarita Jerabek.

Project Manager:
Candace Ehringer, M.A.

Author:
Christian Taylor, M.H.P.

U.S.G.S. Quadrangles: Costa Mesa, CA

Acres: Approx. 120.5

APNs: 114-160-13, 114-160-14, 114-160-23,114-160-32, 114-160-35, 114-160-36,114-160-37, 114-160-38, 114-160-40, 114-160-42, 114-160-43, 114-160-58, 114-170-71, 149-111-08, 149-111-13, 149-111-14, and 149-111-17

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EXECUTIVE SUMMARY
Historical Resources Assessment

Environmental Science Associates (ESA) has been retained by the Orange County Sanitation District (OCSD) to prepare a Historic Resources Assessment of OCSD Plant No. 2 (Plant No. 2 or Plant). The Plant is located at 22212 Brookhurst Street in Huntington Beach, Orange County, California, adjacent to the Santa Ana River and Pacific Coast Highway.

A records search at the California Historical Resources Information System (CHRIS) – South Central Coastal Information Center (SCCIC) was conducted on August 16, 2017. One previous historical resources study included the subject property (OR-04313).[1] This study consisted of a survey of historical resources in Huntington Beach for inclusions in the City's general plan. The study was conducted in November of 2013 and identified multiple historical resources, including districts, throughout the Huntington Beach city limits. However, the majority of the resources identified by the survey are located near the Huntington Beach Pier and original downtown area, located approximately three miles northwest of OCSD Plant No. 2. The survey did not identify any historical resources within the subject property.

An intensive pedestrian survey of the subject property was conducted on August 18, 2017, resulting in the documentation of 33 buildings, structures, and features that meet the 45-yeard old age threshold for historical resources prescribed by the California Register of Historical Resources (California Register). The individual buildings, structures, and features lack distinction but together, reflect Plant No. 2's initial construction in 1954 and expansion in the following decades in response to growing needs for wastewater treatment. Therefore, Plant No. 2 was evaluated as a potential historic district and is recommended not eligible for listing in the California Register. While the Plant was associated with the post-war development of Orange County and Huntington Beach, these communities had been well established by the date of its construction in 1954. Furthermore, the Plant was one of many municipal services constructed in the area to support the growing population and suburban development. The Plant is a common example of the activated sludge treatment plant popular among growing suburban communities during the post-war era. As such, Plant No. 2 does not qualify as a historical resource under the California Environmental Quality Act (CEQA).

No historical resources have been identified in the surrounding area. Since Plant No. 2 was not found eligible as a historical resource and no historical resources have been identified in the surrounding area, no further work or mitigation is recommended for the subject property.

1 "Historical and Cultural Resources Element," *The City of Huntington Beach General Plan,* Huntington Beach, CA., November 2013.

Orange County Sanitation District Plant No. 2

Historical Resources Assessment

Introduction

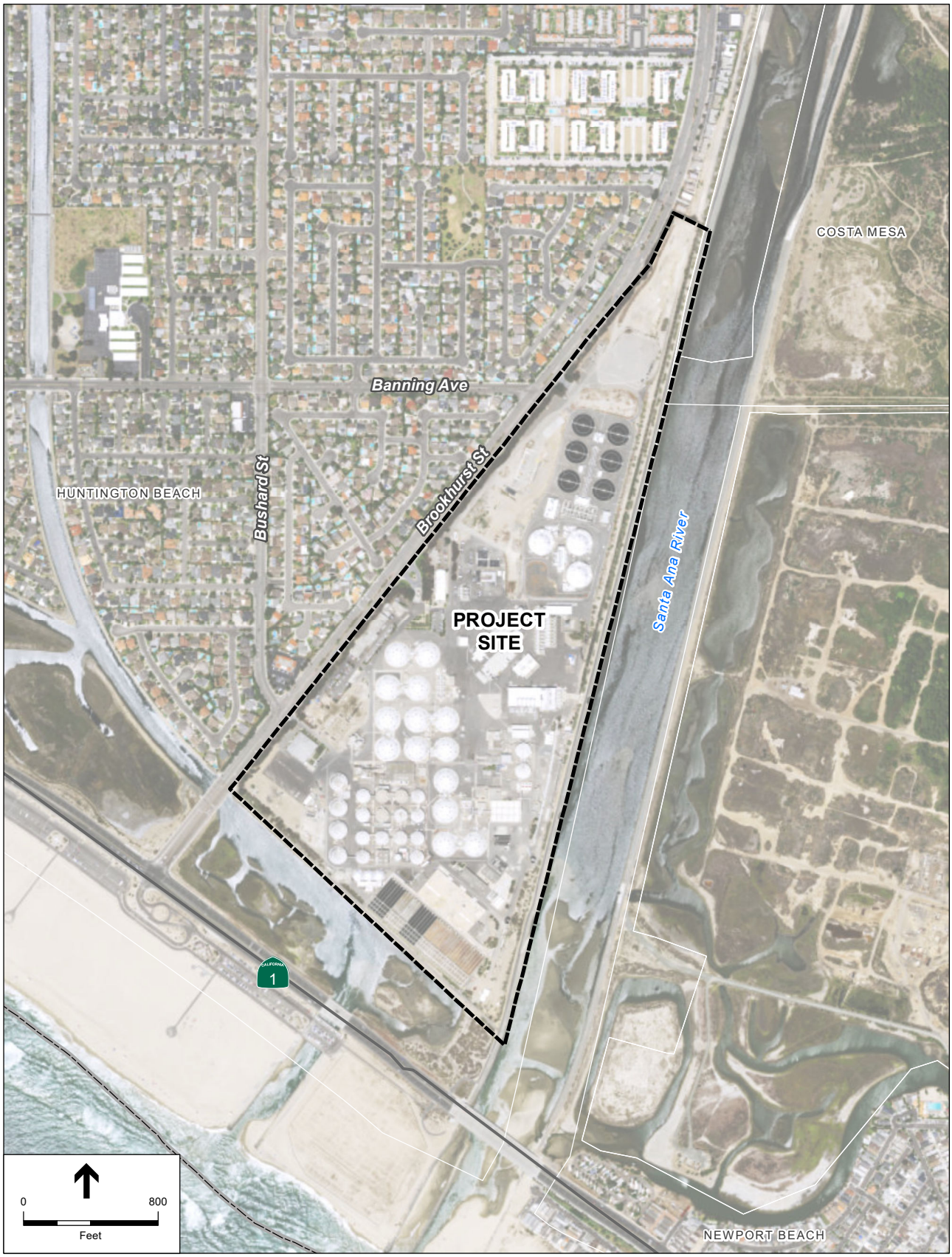
Environmental Science Associates (ESA) has been retained by the Orange County Sanitation District (OCSD) to prepare a Historical Resources Assessment of OCSD Plant No. 2 (Plant No. 2 or Plant). The Plant is located at 22212 Brookhurst Street in Huntington Beach, Orange County, California, adjacent to the Santa Ana River and Pacific Coast Highway (**Figure 1)**. The Plant includes Assessor Parcel Numbers (APNs) 114-160-13, 114-160-14, 114-160-23,114-160-32, 114-160-35, 114-160-36,114-160-37, 114-160-38, 114-160-40, 114-160-42, 114-160-43, 114-160-58, 114-170-71, 149-111-08, 149-111-13, 149-111-14, and 149-111-17 and is bounded by Brookhurst Street to the northwest, the Santa Ana River to the east, and Highway 1 to the south (**Figure 2**). Specifically, the Plant is located within an unsectioned portion of Township 6 South, Range 10 West on the Newport Beach 7.5-minute USGS topographic quadrangle (**Figure 3**).

ESA personnel involved in the preparation of this report include: Margarita Jerabek, Ph.D., Director of Historic Resources, and Christian Taylor, M.H.P., senior architectural historian and report author. Dr. Jerabek and Mr. Taylor meet the Secretary of the Interior's Professional Qualification Standards for architectural history. Candace Ehringer, M.A., served as Project Manager. Resumes of key personnel are provided in **Appendix A**.

SOURCE: ESA, ESRI.

OCSD Biosolids Master Plan . 150626

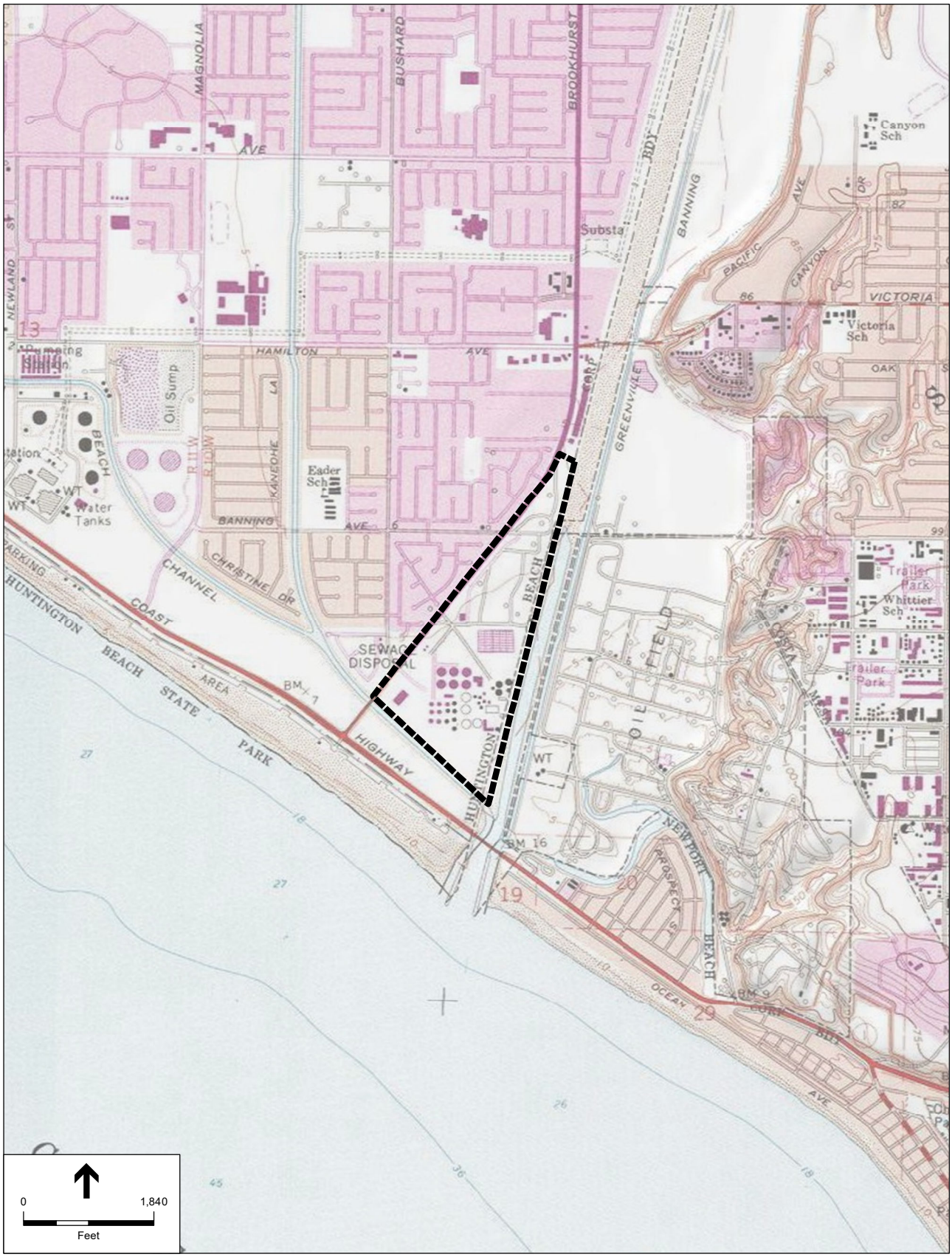
Figure 1
Regional Location



SOURCE: ESA, ESRI.

OCSD Biosolids Master Plan . 150626

Figure 2
Plant Detail



SOURCE: ESA, ESRI.

OCSD Biosolids Master Plan . 150626

Figure 2

Plant Location

Historic Context

This historic context presents the history of the region and subject property, and was developed to provide a context within which identified resources will be evaluated for their historical significance.

Spanish Period (A.D. 1769-1821)

The first European presence in California came in 1542, when Juan Rodriguez Cabrillo led an expedition along the coast. Europeans did not return until 1769, when a Spanish expedition, led by Gaspar de Portolá, traveled north from San Diego in search of Monterey Bay. In July of 1769, the expedition entered what would become Orange County, arriving at the future location of the San Juan Capistrano mission. "The Portolá Expedition proceeded northward making a total of seven campsites in what would become Orange County."[2] In 1775, Father Junipero Serra established the mission at San Juan Capistrano, giving the Spanish a foothold in the area for future settlement.

During the late eighteenth and early nineteenth centuries, the Spanish Government began a land grant program awarding large tracts of land called ranchos to Spanish soldiers who helped settle the region.[3] The boundaries of these ranchos would be the main division of land throughout the Orange County area throughout the Spanish, Mexican, and early American periods. One of the earliest land grants in the area was provided to a Spanish soldier named Manuel Pérez Nieto in 1784, known as Rancho Los Nietos. The second land grant in the region was given to Juan Pablo Grijalva and José Antonia Yorba.[4] The property would become known as Rancho Santiago de Santa Ana. Yorba and Grijalva's grandson, Juan Pablo Peralta would continue to work the land after Grijalva's death in 1806.[5] The land would remain in the family through the Mexican Revolution in 1821.

Mexican Period (A.D. 1821-1848)

In 1821, Mexico was granted independence from Spain after a successful revolution. Despite the change in government, Rancho Los Nietos remained the property of the Nieto family, while Rancho Santiago de Santa Ana remained the property of Juan Pablo Grijalva's decedents. Rancho Santiago de Santa Ana experienced little change after the Mexican Revolution.[6] However, Manuel Pérez Nieto's heirs petitioned the Mexican government to partition Rancho Los Nietos. In 1834, the division of Rancho Los Nietos into six smaller properties was approved by the

2 Pamela Hallan-Gibson, *The Golden Promise: An Illustrated History of Orange County,* Windsor Publications, Inc., Northridge, CA, 1986, 17.

3 Chris Perez Grants of Land in California Made by Spanish or Mexican Authorities, Prepared by the State Lands Commission, Boundary Investigation Unit, August 23, 1982.

4 Ibid, 30.

5 Ibid, 30.

6 Ibid, 34.

Mexican government, resulting in the formation of Rancho Las Bolsas composing of parts of present-day Huntington Beach, Westminster, Garden Grove, and Fountain Valley.[7]

American Period (A.D. 1848-present)

Hostilities between the Mexican and American Governments in 1846 soon escalated into a war between the two nations. "The war itself did not have a significant impact on Orange County, although some hoped that California would be reclaimed by Mexico."[8] That would not be the case however, as the Treaty of Guadalupe Hidalgo ended the war in 1848 and resulted in Mexico ceding California to the United States. That same year, gold was discovered in California, leading to a huge influx of people from other parts of North America, and in 1850, California became a state in the United States of America.

History of the Subject Property

The subject property, located in the former Rancho Las Bolsas, remained undeveloped until 1954 when OCSD completed construction of Plant No. 2. Initially, the Plant consisted of a power station, two digester tanks, and three sets of clarifiers, with additional support buildings. Prior to the construction of Plant No. 2, the area consisted of large agricultural fields. OCSD built Plant No. 2 to accommodate the increasing need for wastewater treatment due to the rapid suburbanization of the surrounding area. Over time, the Plant continued to expand, adding new clarifiers, digesters, and support buildings as needed to address the growing wastewater treatment needs of the surrounding community.

Settlement of Orange County and Huntington Beach (1889-1920)

When California became a state in 1850, it was divided up into twenty-seven counties. "Over the next six decades, hardly a session of the state legislature went by without a bill introduced to divide, merge, or realign the counties, taking California from its original twenty-seven counties to fifty-eight today."[9] In 1889, residents of the southern portion of Los Angeles County voted to form their own county. At the time, the state legislature held the authority to form counties and incorporate cities. Attempts to split up Los Angeles County began in 1870, when Max Strobel petitioned for the creation of Anaheim County, complaining that communities in south Los Angeles County were being ignored by their elected county representatives. "It was inconvenient to go all the way to Los Angeles to transact official business; the roads were bad, and the county had not seen fit to build any bridges in the south; and the City of Los Angeles monopolized most of the county offices, making it a veritable case of taxation without representation."[10] Prior to Strobel's efforts, the area had been sparsely populated. Beginning in 1868, the sale of former ranchos prompted the settlement of several new communities.

7 Hallan-Gibson, *The Golden Promise*, 34.
8 Ibid, 46.
9 Phil Brigandi, *Orange County Chronicles*, The History Press, Charleston, SC, 2013, 38.
10 Ibid. 40.

Although Strobel's movement to establish Anaheim County failed, additional attempts to establish a new county would follow. In 1871, a new group formed in the community of Gallatin, just outside of Downey. The Gallatin based movement advocated for the creation of Orange County, named for Southern California's reputation as a semi-tropical paradise.[11] However, a growing rivalry between the town of Anaheim and the rapidly expanding community of Santa Ana jeopardized the Orange County bill. In 1876, supporters of the new county changed the proposed name to Santa Ana County in order to gain support from Santa Ana community leaders, but the effort failed.

The movement to establish a new county struggled over the next decade. Leaders from Anaheim had been the movement's biggest supporters. However, by 1882 they had turned to oppose separation from Los Angeles County. They would continue to fight the movement to establish a new county until 1889 when a bill to create Orange County was overwhelmingly supported by the public. "Of the 3,009 ballots cast county-wide, 2,509 voted for division and 500 voted against."[12] With the new county established, more communities settled the former ranch lands. In 1901, Bob Northam sold his 1,600-acre ranch to the West Coast Land and Water Company. The new owners sought to establish a community on the coast, known as Pacific City. Eventually the town was renamed Huntington Beach by Henry Huntington.[13] Many of the small coastal communities like Huntington Beach were isolated from the rest of the county. However, Huntington's Pacific Electric Railway would change that at the turn of the century. Huntington's Pacific Electric red cars would arrive in Huntington Beach in 1904, bringing tourists from the inland communities to the small beach town. "Incorporated in 1909, the city remained primarily a vacation town until oil was discovered in 1920."[14] Discovery of oil in the 1920s led to a population explosion in Huntington Beach. In one month, the population of Huntington Beach went from 1,500 to 6,000.

Suburbanization of Orange County (1941-1970)

The 1930s brought the Great Depression to Orange County, stunting the community's growth through the decade. By 1940, the County had grown to a population of 130,760 people but still maintained its rural feel. "There were thousands of acres of natural wilderness areas in the Santa Ana Mountains, most of which had become Cleveland National Forrest, miles of open fields, acres of orange groves, and forty miles of scenic coast."[15] It would all begin to change in 1941 when the United States Army began building what would become the Santa Ana Army Air Base (SAAAB), adding thousands of soldiers to the local population.

Initially known as the United States Air Corps Replacement Training Center, SAAAB occupied 400 acres leased to the federal government for one dollar per year.[16] "The presence of the military

11 Ibid. 42.

12 Pamela Hallan-Gibson, *The Golden Promise: An Illustrated History of Orange County,* Windsor Publications, Inc., Northridge, CA, 1986, 135.

13 Brigandi, *Orange County Chronicles,* 37.

14 Ibid. 63.

15 Pamela Hallan-Gibson, *The Golden Promise: An Illustrated History of Orange County,* Windsor Publications, Inc., Northridge, CA, 1986, 135.

16 Ibid, 217-219.

meant growth, jobs, and economic revitalization."[17] In addition to the economic growth, the military base introduced thousands of soldiers to the mild climate of Southern California. While the base was only opened a few years (1943-1946), it would have a profound impact on the development of the area. Many soldiers who were stationed at SAAAB would return after the war, contributing to the population boom and suburbanization of Orange County in the post-war years.

> *The war changed Orange County forever. New buildings stood where beans had grown; new businesses remained permanent fixtures in downtowns. But the greatest change would come later. The war had brought hundreds of thousands of people into Orange County, however briefly. They had sampled the sunshine and had felt the ocean breezes; they had seen productive fields and growing cities. All around them they saw opportunities for a better life for themselves and their families.*[18]

The 1950s would be a decade of unprecedented population growth in Orange County. The post-war boom began in Los Angeles and spread outward as veterans returned to Southern California with their families. By 1960, the population of Orange County had grown to over one million people. The increase in population meant significant residential and commercial development. In 1950, 5,500 residential construction permits were filed in the county. "Five years later, that number had reached nearly 26,000. The total peaked again in 1962, with 33,200 permits issued."[19] The western portions along the coastline developed rapidly due to the flat open spaces and proximity to Los Angeles. Dozens of new cities were established while older communities expanded by annexing neighboring towns.

Sanitation Needs of Orange County (1945-1970)

The post-war era suburbanization of Orange County put great strain on various county services, including sanitation. Sanitation efforts in the county began in 1921 with the formation of the Orange County Joint Outfall Sewer (JOS), representing a joint effort between the communities of Anaheim and Santa Ana to build an outfall extending into the Pacific Ocean.[20] By 1927, the outfall had been extended to 3,000 feet and a new screening plant and pumping station was added. In 1941, the JOS upgraded the sewer line with a new primary treatment plant. "Major improvement urged is construction of a disposal plant which would include facilities for sedimentation, digestion and sludge drying with necessary pumps, piping and auxiliary equipment."[21] The new plant was a welcome addition to the sewer system but it would not be enough to process sewage for Orange County's growing population.

By 1947, the County was looking to upgrade its system again. "Two State officials, E. A. Reinke, chief of the Bureau of Sanitary Engineering of the State Department of Public Health and J. A.

17 Ibid, 219.

18 Ibid, 229.

19 Brigandi, *Orange County Chronicles,* 133.

20 "Orange County Sanitation District." *History: Orange County Sanitation District*, www.ocsd.com/about-us/general-information/history#1970. Accessed 12 Sept. 2017.

21 "Orange County Cities Asked to Spend $150,000 on Sewer," *Los Angeles Times,* February 15, 1940, 9.

Harmon, senior sanitary engineer of the bureau, said their survey showed that in the vicinity of at least five of the six outfalls in the county samples of water have shown higher percentage of pollution than State standards for 'safe salt water bathing.'"[22] The result of the survey prompted the County Board of Supervisors to form OCSD under the Sanitary District Act of 1923. Districts 1, 5, and 6 were organized in 1947 and Districts 2, 3, 7, and 11 organized in 1948. At the time, planning for a county-wide sewer system was already being discussed, however the County needed a way to fund the project. In 1949, Orange County residents voted in favor of a county-wide sanitation improvement bill worth over $8 million. Funds from the sanitation improvement bill contributed to the construction of a network of trunk sewers and a 78-inch diameter 7,000-foot-long ocean outfall. The funding also supported the construction of Plant No. 1, constructed around 1951, and Plant No. 2, completed on the subject property in May of 1954. Wastewater treated at Plant No. 2 was tested twice a day to make sure no pollutants were contaminating the nearby beaches. "Any adverse readings made by the Sanitation Districts would require more intensive treatment of wastes being processed through their plants and discharged through the outfall."[23] During the 1950s and 1960s, Plant No. 2 expanded significantly to address the growing need for wastewater treatment. In 1965, the City of Santa Ana began planning $10 million dollars in improvements to its overburdened sewer system. As part of Sanitation District No. 1, the sewage from Santa Ana was treated by the plants in Fountain Valley (Plant No. 1) and Huntington Beach (Plant No. 2).

The need to find unique ways to process the county's sewage led to experimentation with water reclamation. The Orange County Water District (OCWD) petitioned the federal government for a $200,000 grant to explore water reclamation options in 1965. "The grant would assist the district in its studies to remove biological and mineral contaminants from the water."[24] The experimental facility was built adjacent to the sanitation districts' treatment plant in Fountain Valley (Plant No. 1). Rossmoor Sanitation, Inc., a private sanitation company, contributed to the OCWD's reclamation program using their own facilities. The company operated a private sewage water treatment plant and reservoir at the Rossmoor Leisure World Golf Course. Today, OCWD's water reclamation plant in Fountain Valley is the largest water reclamation program in the world.[25] In 1971, OCSD completed construction of its 5-mile long, 120-inch diameter ocean outfall extending from Plant No. 2 at the mouth of the Santa Ana River. "Sanitation officials say that the outfall, second largest on the West Coast (Los Angeles has the biggest: 144 inches in diameter), will meet tougher sewage discharge standards when it becomes operational in late January."[26] By this time, Plant No. 2 had added a number of new clarifiers and digesters, significantly increasing its wastewater treatment capacity.

22 "The Southland: Cities Act to Safeguard Orange County Beaches," *Los Angeles Times,* December 25, 1947, A2.
23 "Sea Tested for Safe Bathing," *Los Angeles Times,* August 12, 1956, J1.
24 "County Agency Seeks $200,000 U.S. Grant," *Los Angeles Times,* July 29, 1965, OC5.
25 Aaron Orlowski, "Orange County's Water Recycling Program Expands," *Orange County Register,* June 27, 2015.
26 "5-Mile Ocean Outfall Nearing Completion," *Los Angeles Times,* December 17, 1970, e6.

Wastewater Treatment Methods and Infrastructure

Wastewater treatment in the United States began to evolve significantly during the late eighteenth century as cities began to grow. Pit privies and open ditches were replaced by underground sewers, while the treatment of wastewater was mostly through dilution into receiving waters. In Europe, many communities dispersed their wastewater in nearby agricultural fields to serve as fertilizer. "However, water logging became a major problem, and the continuous expansion of the cities made it more difficult to find sufficient land nearby."[27] Experimentation with biological filters using organisms began in the United Kingdom in 1893. The first biological filter in the United States was developed in Madison Wisconsin in 1901. In 1913, a new method of treatment was developed in England called the activated sludge process. By 1916, the first activated sludge plants were being built throughout the United States in places like San Marcos, Texas, Milwaukee, Wisconsin, and Cleveland, Ohio.[28] Although the activated sludge method of wastewater treatment was the preferred option, patent litigation throughout the 1920s and 1930s stalled its development. Multiple communities throughout the United States were sued over their wastewater treatment plants during this time. "Several existing plants quickly shut down to avoid monetary fines, including the original San Marcos, Texas facility."[29] However, during the post-war years the activated sludge process would finally become the preferred approach to waste water treatment.

The activated sludge process relies on microorganisms feeding on the contaminants in wastewater. The process results in a high-quality effluent at a low cost. "Other advantages of the activated sludge process are the low construction cost and the relatively small land requirement."[30] Wastewater treatment plants utilizing the activated sludge process consist of multiple components including aeration tanks where biological reactions occur, clarifiers where solids are separated from the water, and a means of collecting the solids. Variations of the activated sludge process include extended aeration, sequencing batch reactors, and oxidation ditches.[31]

Clean Water Act of 1972

In 1972, the Federal Government passed the Clean Water Act (CWA), establishing rules regulating the "discharges of pollutants into the waters of the United States and regulating quality standards for surface waters."[32] The CWA was an extension of the Federal Water Pollution Control Act passed in 1948, resulting in the development of wastewater standards for industry and water quality standards for contaminants in surface waters. "All waters should be protected

27 Mogens Henze, Mark C. M. van Loosdrecht, G. A. Ekama, Damir Brdjanovi, *Biological Wastewater Treatment*, IWA Publishing, London, UK, 2008, 2.

28 James E. Alleman, *The Genesis and Evolution of Activated Sludge Technology*, https://www.elmhurst.org/DocumentCenter/View/301, Accessed September 5, 2017.

29 Alleman, *The Genesis and Evolution of Activated Sludge Technology*.

30 "Explaining the Activated Sludge Process," *Pipeline: Small Community Wastewater Issues Explained to the Public*, http://www.nesc.wvu.edu/pdf/ww/publications/pipline/pl_sp03.pdf. Accessed September 15, 2017, 2.

31 Ibid, 4-6.

32 "Summary of the Clean Water Act." *EPA*, Environmental Protection Agency, 7 Aug. 2017, www.epa.gov/laws-regulations/summary-clean-water-act. Accessed 15 Sept. 2017.

for recreational uses in or on the water and for the preservation and propagation of desirable species of aquatic life."[33] The CWA also provided local governments with the funding needed to meet the new requirements. "The Construction and renovation frenzy that ensued was the largest public works project in the county to date. By its completion, the United States had 16,000 sewage treatment plants and an improved sewage treatment process."[34] While the CWA prevented the discharge of pollutants in navigable waters, a special permit could be obtained. In 1973, the Environmental Protection Agency issued the first wastewater discharge permit to the community of Riverton, Illinois. "The treatment system used by Riverton is a modified activated sludge secondary treatment system using the contact stabilization process. The plant's effluent is chlorinated before being discharged to the river."[35] Over time, more municipalities would join Riverton as permit holders. However, Congress passed the Ocean Dumping Ban Act in 1989 forcing coastal communities to develop new methods for disposing of their sludge.[36]

Regulatory Framework

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) is the principal statute governing environmental review of projects occurring in the State and is codified at Public Resources Code ("PRC") section 21000, *et seq.* CEQA requires lead agencies to determine if a proposed project would have a significant effect on the environment, including significant effects on historical resources. Under CEQA (Section 21084.1), a project that may cause a substantial adverse change in the significance of a historical resource is a project that may have a significant effect on the environment. (PRC § 21084.1)

The *CEQA Guidelines* (Title 14 California Code of Regulations [CCR] Section 15000, *et seq.*) recognize that historical resources include: (1) a resource listed in, or determined to be eligible by the State Historical Resources Commission for listing in, the California Register of Historical Resources (California Register); (2) a resource included in a local register of historical resources, as defined in PRC Section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC Section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record (*CEQA Guidelines* § 15064.5). The fact that a resource does not meet the three criteria outlined above does not

33 "EPA Releases Guidelines for New Water Quality Standards." *EPA*, Environmental Protection Agency, 8 Aug. 2016, archive.epa.gov/epa/aboutepa/epa-releases-guidelines-new-water-quality-standards.html. Accessed 15 Sept. 2017.

34 Rose George, *The Big Necessity*, Metropolitan Books, New York, NY, 2008, 155.

35 "EPA Issues First Municipal Wastewater Discharge Permit in the Nation." *EPA*, Environmental Protection Agency, 8 Aug. 2016, archive.epa.gov/epa/aboutepa/epa-issues-first-municipal-wastewater-discharge-permit-nation.html. Accessed 15 Sept. 2017.

36 George, *The Big Necessity*, 155.

preclude the lead agency from determining that the resource may be an historical resource as defined in PRC Sections 5020.1(j) or 5024.1 (*CEQA Guidelines* § 15064.5(a)(4)).

A significant effect on the environment would occur if a project results in a substantial adverse change in the significance of a historical resource as defined in *CEQA Guidelines* Section 15064.5(a). Substantial adverse change is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of a historical resource would be materially impaired" (*CEQA Guidelines* § 15064.5(b)(1)). According to *CEQA Guidelines* Section 15064.5(b)(2), the significance of a historical resource is materially impaired when a project demolishes or materially alters in an adverse manner those physical characteristics that:

A. Convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register; or

B. Account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the Public Resources Code or its identification in a historical resources survey meeting the requirements of section 5024.1(g) of the Public Resources Code, unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

C. Convey its historical significance and that justify its eligibility for inclusion in the California Register as determined by a Lead Agency for purposes of CEQA.

Generally, a project that complies with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings or the Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings (collectively, "Standards") is considered to have mitigated its impacts to historical resources to a less-than-significant level. (*CEQA Guidelines* § 15064.5(b)(3)). Although not prescriptive and as suggested by the term "generally" as used in the *CEQA Guidelines*, the appropriate application of the Standards, or a subset thereof, requires careful consideration by a lead agency of the specific significance, characteristics, and condition of the historical resource for which impacts are being evaluated.

California Register of Historical Resources

The California Register is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change" (PRC § 5024.1(a)). The criteria for eligibility for the California Register are based upon the National Register of Historic Places (National Register) criteria (PRC § 5024.1(c)). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register (PRC § 5024.1(d)).

Under PRC Section 5024.1(c), to be eligible for the California Register, a prehistoric or historical-period property must be significant at the local, State, and/or federal level under one or more of the following four criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Historical resources must generally be at least 50 years old to be considered for evaluation and inclusion in the California Register. However, historical resources less than 50 years old may also be considered for listing in the California Register if it can be demonstrated that sufficient time has passed to understand its historical importance (*California Code of Regulations* (CCR), Title 14, Division 3, Chapter 11.5, 4852(d)(2)).

To be eligible for the California Register, a resource must meet one of the criteria of significance listed above and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historical resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but still be eligible for listing in the California Register (CCR § 4852(c)).

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register and those formally determined eligible for the National Register;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register (PRC § 5024.1(d)).

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register, the California Register, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and,
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone (PRC § 5024.1(e)).

Local

Huntington Beach General Plan

The City of Huntington Beach's General Plan, Historical and Cultural Resources Element (2015), contains the following cultural resources goals, objectives, and policies, and relevant to the subject property:

Goal HCR 1: Promote the preservation and restoration of the sites, structures and districts which have architectural, historical, and/or archaeological significance to the City of Huntington Beach.

Objective HCR 1.1: Ensure that all the City's historically and archaeologically significant resources are identified and protected.

Policy HCR 1.1.1: Continually update the existing citywide survey of potentially historic resources subject to City Council approval.

Policy HCR 1.1.2: Consider the designation of any historically significant public trees, archaeological sites, parks, structures, sites or areas deemed to be of historical, archaeological, or cultural significance as a Huntington Beach City Historical Point, Site or District.

Policy HCR 1.1.3: Consider establishing a historic overlay for historic structures throughout the City. The overlay should be structured to allow the underlying land use to continue as well as support the reuse of the historic structure.

Policy HCR 1.1.4: Support an integrated approach to historic preservation in coordination with other affected jurisdictions, agencies, and organizations for areas within the Planning Area and surrounding region that seeks to establish linkages between historic sites or buildings with other historic features such as roads, trails, ridges, and seasonal waterways.

Objective HCR 1.2: Ensure that the City ordinances, programs, and policies create an environment that fosters preservation, rehabilitation, and sound maintenance of historic and archaeological resources.

Policy HCR 1.2.1: Utilize the State of California Historic Building Code, Secretary of Interior Standards for Historic Rehabilitation, and standards and guidelines as prescribed by the State Office of Historic Preservation as the architectural and landscape design standards for rehabilitation, alteration, or additions to sites containing historic resources in order to preserve these structures in a manner consistent with the site's architectural and historic integrity.

Policy HCR 1.2.2: Encourage new development to be compatible with adjacent existing historic structures in terms of scale, massing, building materials and general architectural treatment.

Policy HCR 1.2.3: Investigate the appropriateness of establishing a "receiver site" program and explore the opportunity to integrate historic buildings with cultural and arts education.

Archival Research

Methods

A records search at the California Historical Resources Information System (CHRIS) – South Central Coastal Information Center (SCCIC) was conducted on August 16, 2017, which included a review of the National Register and its annual updates, the California Register, the Statewide Historical Resources Inventory (HRI) database maintained by the State Office of Historic Preservation (OHP), as well as cultural resources reports on file.

Results

The results of the CHRIS-SCCIC records search conducted on August 16, 2017 indicate that no historical resources have been formally identified on the subject property. One previous historical resources study included the subject property (OR-04313).[37] This study consisted of a survey of historical resources in Huntington Beach for inclusions in the City's general plan. The study was conducted in November of 2013 and identified multiple historical resources including districts, throughout the Hunting Beach city limits. However, the majority of the resources identified by the survey are located near the Huntington Beach Pier and original downtown area, located approximately three miles northwest of OCSD Plant No. 2. The survey did not identify any historical resources on the subject property.

Additional Research

Methods

Additional archival research conducted for this Project included:

- Review of Sanborn fire insurance maps, historical photographs, historical aerial imagery, online newspaper databases, and other published and unpublished sources.
- Review of building records obtained from OCSD.

Results

Maps and Aerial Photographs

Sanborn maps were not available for the subject property because the property and surrounding area consisted of agricultural fields and were undeveloped prior to Plant No. 2's construction in 1954 (EDR, 2017).

[37] "Historical and Cultural Resources Element," *The City of Huntington Beach General Plan,* Huntington Beach, CA., November 2013.

Aerial photographs of the subject property were available for the years 1938, 1947, 1953, 1963, 1972, 1977, 1987, 1990, 1994, 2005, 2009, 2010, and 2012. A review of historical aerial imagery indicates that the improvements within the subject property began construction between 1954 and 1963 (**Figures 4** and **5**). Additional facilities were added to the subject property between 1963 and 1972 as the Plant continued to expand its operations (**Figure 6**). All of the improvements constructed prior to 1972 meet the OHP's 45-year age threshold for consideration as historical resources. The remaining improvements within the subject property were constructed after 1972 and do not meet the OHP's 45-year age threshold.

SOURCE: EDR, 2017

Figure 4

Aerial View of the Subject Property and surrounding area, 1953

SOURCE: EDR, 2017

Figure 5

Aerial View of the Subject Property and surrounding area, 1963

SOURCE: EDR, 2017

Figure 6

Aerial View of the Subject Property and surrounding area, 1972

Orange County Sanitation District Building Records

Records obtained from OCSD provide a history of alterations for buildings, structures, and features constructed prior to 1972 (**Table 1**). The records do not indicate the names of architects or engineers associated with the construction of the related buildings, structures, or features. The earliest recorded alteration was the reconstruction of Surge Tower No. 1 in 1960. The original Surge Tower No. 1 was one of the original structures built when the Plant opened in 1954. Additional alterations conducted between 1962 and 2017 vary from major reconstructions to minor exterior modifications.

TABLE 1
ORANGE COUNTY SANITATION DISTRICT BUILDING RECORDS

Building	Date	Project #	Description
Sodium Bisulfate Facility	1965	I-7-1	Built in 1965 as power generating building
	2003	J-87	Demolished the structure built in 1969 and replaced with new structure
Plant Water Pump Station	1954	P2-1	Building constructed in 1954
	1983	P2-23-6	Demolished the structure built in 1954 and replaced with new structure.
Bleach Station	1962	J-4	Construction of original Bleach Station
	1995	P2-55	Demolished the structure built in 1962 and replaced with new facility.
Emergency Power Building	1965	P2-7	Construction of the Emergency Power Building.
	1979	P2-23-3	Modified to standby power bldg.
Primary Power Building A	1954	P2-1	Construction of the Primary Power Building A.
Power Building B	1971	P1/P2-15	Construction of Power Building B.
	1994	P2-53-3	Seismic retrofitted with minor exterior impacts.
Surge Tower No. 1	1960	J-3	Demolished and replaced the old surge tower #1 located south of the Surge Tower No. 2.
Surge Tower No. 2	1967	J-9	Original construction of Surge Tower No. 2.
GAC Building	1962	P2-4	Built as Boiler Building.
	1967	I-4-2	Added gas compressor.
	1969	P2-8-3	Rehab. and modified minor exterior.
	1982	P2-24-1	Gas compressor removed to new building
Effluent Junction Structure (ABAN)	1965	I-6-2	Initial construction of the Effluent Junction Structure.
	2008	J-77	Pipe demolished.
Digester A	1954	P2-1	Construction of Digester A.
Digester B	1954	P2-1	Construction of Digester B.
Digester C	1960	P2-2	Construction of Digester C.
Digester D	1963	P2-3	Construction of Digester D.
Digester E	1963	P2-3	Construction of Digester E.
	1987	P2-30	Replaced the digester dome
Digester H	1963	P2-3	Construction of Digester H.
	1987	P2-30	Replaced the digester dome
Digester F	1963	P2-5	Construction of Digester F.

Building	Date	Project #	Description
Digester G	1963	P2-5	Construction of Digester G.
Digester I	1970	P2-14	Construction of Digester I.
	2000	P2-39	Rehab.
Digester J	1972	P2-16	Construction of Digester J.
	2000	P2-39	Rehab.
Digester L	1972	P2-19	Construction of Digester L.
	2000	P2-39	Rehab.
Digester M	1972	P2-19	Construction of Digester M.
	2000	P2-39	Rehab.
Primary Clarifiers A-C	1954	P2-1	Initial construction of Clarifiers A-C.
	1991	P1-25	Added covers to Clarifiers.
Primary Clarifier D	1960	P2-2	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier E	1963	P2-3	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier F	1963	P2-5	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier G	1963	P2-5	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier H	1967	P2-12	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier I	1970	P2-14	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier J	1971	P2-16	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier K	1971	P2-16	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.

Building	Date	Project #	Description
Primary Clarifier L	1972	P2-19	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Primary Clarifier M	1972	P2-19	Construction of clarifier.
	1986	P2-29	Mechanically rehab. the clarifier with minor exterior repair.
	1991	P1-25	Added clarifier cover.
Boiler Building	1972	P2-17	Construction of the Boiler Building.
	1996	P2-43-3	Mechanically rehab.
	2017	P2-106	Mechanically rehab.
Dewatering Building	1971	P1-15/P2-15	Built as centrifuge building.
	1982	P2-24-1	Replace the centrifuge with belt press dewatering process
Oil Dock	1969	P2-8-3	Original construction of the Oil Dock.
P.D.F. Building	1969	P2-8-3	Originally built as Operators Building in 1969. Use replaced by construction of new Operations Center (P2-23-5) in 1979.

SOURCE: Orange County Sanitation District

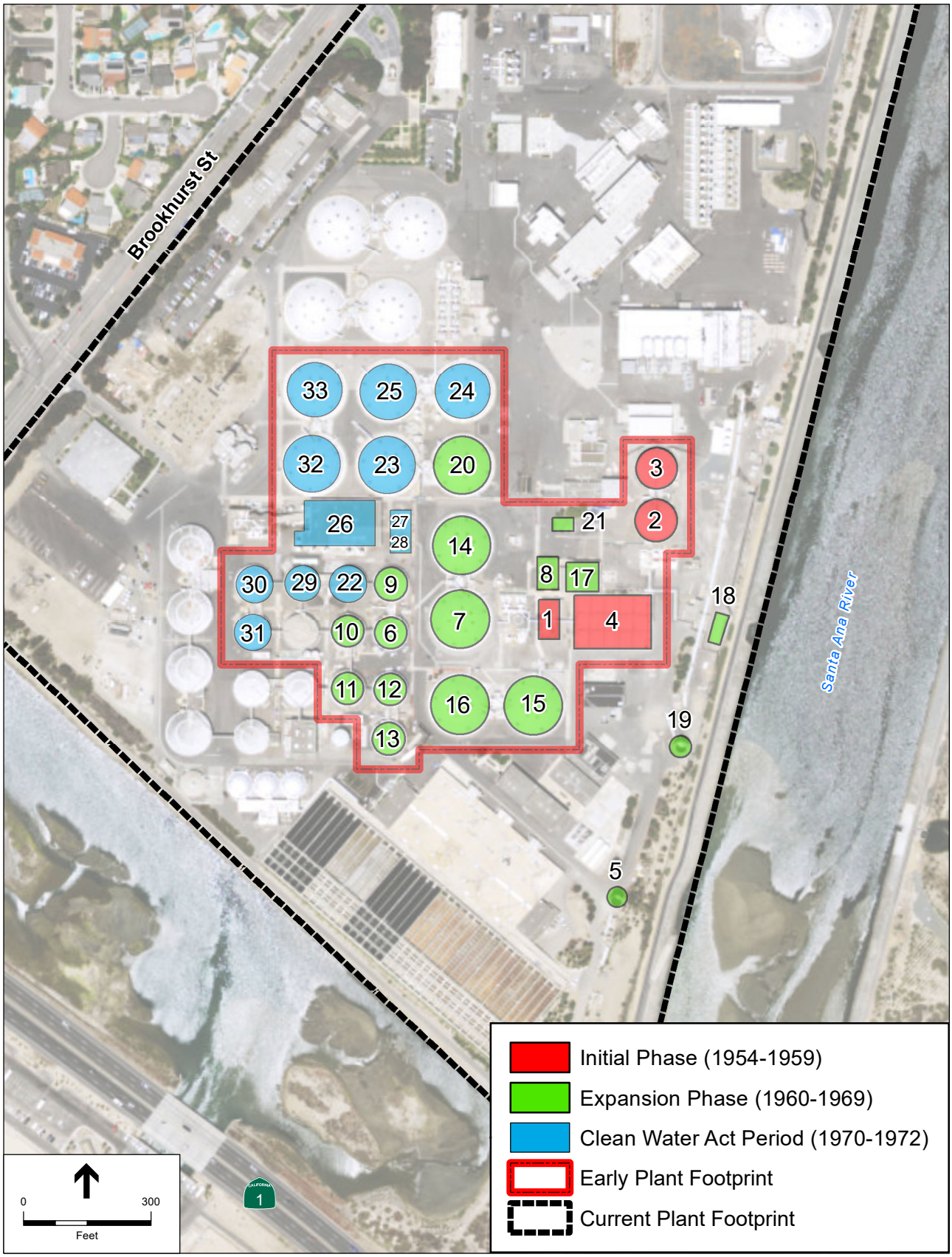
Field Survey

Methods

An intensive pedestrian survey of the subject property was conducted by ESA architectural historian Christian Taylor, M.H.P., on August 18, 2017 using survey methodology consistent with the State OHP guidelines. Mr. Taylor documented existing on-site buildings and structures that meet the OHP's 45-year age threshold through the use of digital photography.

Results

The Plant consists of multiple buildings, structures, and features, which were constructed over time, allowing the OCSD to improve its water treatment capabilities. Most of the buildings, structures, and features located on the property were constructed after 1972 and do not meet the OHP's 45-year threshold for consideration as historical resources, and therefore were not documented. However, 33 buildings, structures, and features constructed between 1954 and 1972 were documented as a result of the survey and are listed below in **Table 2** and shown on **Figure 7**. Plant No. 2 was documented on California Department of Parks and Recreation (DPR) 523 forms (**Appendix B**).



SOURCE: ESA, ESRI.

OCSD Biosolids Master Plan . 150626

Figure 7

Plant No. 2 Survey Results

TABLE 2
SURVEYED FEATURES OF OCSD PLANT NO. 2

Era of Construction	Building Name (Year of Construction)
Initial Development (1954)	Primary Power Building A (1954)
	Digester A (1954)
	Digester B (1954)
	Primary Clarifiers A-C (1954)
Expansion (1960-1969)	Surge Tower No. 1 (1960)
	Digester C (1960)
	Primary Clarifier D (1960)
	GAC Building (1962)
	Digester D (1963)
	Digester E (1963)
	Digester H (1963)
	Digester F (1963)
	Digester G (1963)
	Primary Clarifier E (1963)
	Primary Clarifier F (1963)
	Primary Clarifier G (1963)
	Emergency Power Building (1965)
	Effluent Junction Structure (ABAN) (1965)
	Surge Tower No. 2 (1966)
	Primary Clarifier H (1967)
	P.D.F. Building (1967)
Clean Water Act of 1972 (1970-1972)	Digester I (1970)
	Primary Clarifier I (1970)
	Primary Clarifier J (1971)
	Primary Clarifier K (1971)
	Dewatering Building (1971)
	Power Building B (1971)
	Boiler Building (1972)
	Digester J (1972)
	Digester L (1972)
	Digester M (1972)
	Primary Clarifier L (1972)
	Primary Clarifier M (1972)

Plant No. 2

The Plant No. 2 buildings, structures, and features consist mainly of digesters, clarifiers, support buildings, and processing facilities located near the center of the subject property. They represent different periods of the Plant's growth, including its initial period of development during the 1950s, expansion of the plant in the 1960s, and alterations in preparation for the Clean Water Act of 1972.

Initial Development (1954-1959)

When Plant No. 2 was completed in 1954, it occupied a small portion of the subject property and consisted mainly of Clarifiers A-C, Digesters A and B, a power plant building and other small support buildings (**Figure 8**). Clarifiers A-C, Digesters A and B, and Primary Power Building A remain on the site today. However, Primary Power Building A has undergone significant changes since its construction in 1954.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: Orange County Sanitation District

Figure 8
Aerial view of Plant No. 2, August 23, 1957

Primary Power Building A

Primary Power Building A was originally constructed in 1954. According to the historical aerials of the subject property, Primary Power Building A has changed significantly since it was built. Originally, the building had a rectangular foot print with a pitched roof. In its current condition,

the building is much larger, features a slight L-shaped plan, and has a flat roof. The utilitarian structure is located directly adjacent to the Granulated Activated Carbon (GAC) Building, Emergency Power Building, and Primary Clarifiers A-C.

Digesters (A and B)

Constructed in 1954, Digesters A and B represent some of the earliest structures remaining on the property. Both digesters are built out of concrete and feature identical utilitarian designs. The cylindrical digesters have circular footprints and domed roofs, lined with metal railings (**Figure 9**). Although the digesters have not been significantly modified, they are currently not in use.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 9

View of Digesters A and B near the east boundary of Plant No. 2 (view facing northeast)

Primary Clarifiers (A-C)

Primary Clarifiers A-C were added to the Plant in 1954. The clarifiers are constructed out of concrete and have a rectangular footprint (**Figure 10**). They consist of 15 bays arranged in a 3x5 grid pattern. The clarifiers are accessed via metal stairs and lined with metal railings. In 1991, covers were added to the 15 bays. The clarifiers are currently in deteriorating condition and are no longer in use.

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 10
View of Clarifiers A-C (view facing southeast)

Expansion (1960-1969)

Between 1960 and 1969, the Plant expanded significantly to accommodate the water treatment needs of Orange County's growing population. OCSD added six digesters, four clarifiers, and several support buildings during this period (**Figure 11**).

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: Orange County Sanitation District

Figure 11
Aerial view of Plant No. 2, March 2, 1968

Surge Tower No.1

Built in 1960, Surge Tower No. 1 is located near the eastern boundary of Plant No. 2 (**Figure 12**). The cylindrical tower is utilitarian in design and constructed of concrete. There is a winding metal staircase attached to the tower's exterior. To the south of the tower is a large open pit with concrete sidewalls and metal railings. The pit contains a large metal pipe that is part of the plant's outfall. The purpose of Surge Tower No. 1 is to control the flow of water through the outfall pipe into the adjacent Pacific Ocean.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 12
View of Surge Tower No. 1 (view facing north)

GAC Building

The GAC Building was originally constructed as a boiler building in 1962. It is a single-story, utilitarian structure displaying elements of the Brutalist style found throughout the facility. The GAC Building shares design characteristics with the nearby Process Distribution Frame Building, indicating that Brutalist use of concrete may be an alteration. Records show that the GAC Building was rehabilitated in 1969, resulting in minor exterior alterations. Historical aerial images show that the GAC Building's footprint significantly changed sometime between 1963 and 1972. In its current condition, the GAC Building has rectangular plan and is constructed out of concrete. It features a flat roofline with decorative concrete beams and frosted clearstory windows located directly below the roofline (**Figure 13**).

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 13
View of the GAC Building (view facing south)

Emergency Power Building

The Emergency Power Building is a large utilitarian concrete building constructed in 1965. The building is located between the GAC Building to its south, and Clarifiers A-C to the north. In 1975, the Emergency Power Building was modified, converting it into the Standby Power Building. The building features a square footprint with flat roofline (**Figure 14**). The roofline is accentuated by angled eaves and exposed concrete beams. The building's exterior walls feature panels of textured concrete separated by concrete beams. Large rollup metal doors provided access to the building's interior.

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 14
View of the Emergency Power Building (view facing south)

Surge Tower No. 2

Like Surge Tower No. 1, Surge Tower No. 2 is a cylindrical tower, utilitarian in design and constructed of concrete (**Figure 15**). Surge Tower No. 2 was constructed in 1967 and is located near the eastern boundary of Plant No. 2. There is a winding metal staircase attached to the tower's exterior. A portion of the facilities outfall pipe sits adjacent to the Tower's north side. The purpose of Surge Tower No. 2 is to control the flow of water through the outfall pipe into the adjacent Pacific Ocean.

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 15
View of Surge Tower No. 2 and adjacent outfall pipe (view facing east)

Process Distribution Frame Building

The Process Distribution Frame Building, also known as the P.D.F. Building, was originally constructed in 1969 as the Operators Building. In 1979, a new Operations Center was built to the northeast near the Plant's main entrance, replacing the original use of the building. The P.D.F. Building is located near some of the oldest digesters and clarifiers remaining within the Plant. It has a rectangular footprint, with a flat roofline (**Figure 16**). The building is covered with masonry exterior cladding and features exposed concrete posts and beams. Aluminum frame doors, windows, and clerestory windows conclude the decorative features of the building.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 16
View of the P.D.F. Building (view facing south)

Primary Clarifiers (D-H)

Primary Clarifiers D-H each feature the same circular utilitarian design. The clarifiers are large features that occupy a majority of the subject property. They are constructed of concrete and topped with fiberglass geodesic domes (alterations) that were added to reduce odor in 1991 (**Figures 17** and **18**). The clarifiers were constructed in phases, beginning with Clarifier D in 1960, followed by Clarifiers E-G in 1963, and Clarifier H in 1967.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 17
View of Primary Clarifiers E and H (view facing west)

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 18
View of Primary Clarifiers G and D (view facing east)

Digesters (C-H)

Like the clarifiers, Digesters D-H feature identical utilitarian designs and were constructed in phases as the Plant expanded during the 1960s. Built in 1960, Digester C was the first of the grouping to be constructed, followed by Digesters D-H in 1963. The digesters are utilitarian in design, constructed of concrete (**Figures 19** and **20**). They are cylindrical in form and feature a circular footprint. In 1987, the domes on Digesters E and H were replaced.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 19
Digesters C and E (view facing north)

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 20
Digesters F, G, and H (view facing southeast)

Clean Water Act of 1972 (1970-1972)

During the early 1970s, Plant No. 2 continued to expand by adding new clarifiers and digesters. The Plant also added new processing facilities in anticipation of new regulations proposed in the Clean Water Act of 1972. In addition to the new clarifiers and digesters constructed during this period, OCSD added the Dewatering Building, Power Building B and the Boiler Building.

Power Building B and Boiler Building

Power Building B was constructed in 1971. In 1972, the Boiler Building was added to Power Building B's southeast elevation. The two buildings are utilitarian in design and located near the center of the Plant. The buildings have a rectangular footprint and a flat roof with metal railings. The Boiler Building was rehabilitated in 1996 and 2017, while Power Building B was seismically retrofitted in 1994.

Dewatering Building

Constructed in 1971, the Dewatering Building is a large concrete structure with a rectangular footprint. The building features a flat roof with angled overhang. The exterior walls of the Dewatering Building consist of concrete panels separated by concrete beams (**Figure 21**). In 1982, the Dewatering Building was modified removing the original centrifuge and replacing it with a belt press dewatering process.

Orange County Sanitation District Plant No. 2 – 150626.00
SOURCE: ESA, 2017

Figure 21
View of the Dewatering Building (view facing east)

Primary Clarifiers (I-M)

Primary Clarifiers I-M each feature the same circular utilitarian design. The clarifiers are large features that occupy a majority of the subject property. They are constructed of concrete and topped with fiberglass geodesic domes (alterations) that were added to reduce odor in 1991 (**Figure 22**). The clarifiers were constructed in phases, beginning with Clarifier I in 1970, followed by Clarifiers J and K in 1971, and Clarifiers L and M in 1972.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 22
Primary Clarifiers L and M (view facing east)

Digesters (I-M)

Like the clarifiers, Digesters I-M feature identical utilitarian designs and were constructed in phases as the Plant continued to develop during the 1970s. Built in 1970, Digester I was the first of the grouping to be constructed, followed by Digesters J, L, and M in 1972. The digesters are utilitarian in design, constructed of concrete (**Figure 23**). They are cylindrical in form and feature a circular footprint. In 2000, Digesters I-M were rehabilitated.

Orange County Sanitation District Plant No. 2 – 150626.00

SOURCE: ESA, 2017

Figure 23
Digester J (view facing northeast)

Significance Evaluation

OCSD Plant No. 2 was evaluated as a historic district for listing in the California Register under Criteria 1-4. The Plant was constructed in 1954 when Orange County was experiencing significant population growth and suburban development. Over time, the Plant expanded to accommodate the County's increasing sanitation needs. The Plant consists of numerous buildings, structures, and features associated with wastewater treatment, with construction dates ranging between 1954 and 2012. Of the numerous buildings, structures, and features, 33 meet the OHP's 45-year age threshold for consideration as historical resources. These buildings, structures, and features reflect Plant No. 2's early phases of development, and while they may lack individual distinction, together they have the potential for consideration as a historic district.

Criterion 1: Events

Under Criterion 1, a resource is eligible if it is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. While Plant No. 2 is associated with a later period of development for Huntington Beach and Orange County, it did not play an important role in the initial development of these communities. Orange County was first settled as early as the 1860s and became its own county in 1889. Huntington Beach started out as a small coastal town known as Pacific City in 1901 and was incorporated as Huntington Beach in 1909. The Plant was constructed in 1954 and is associated with the post-World War II development of Huntington Beach and Orange County. Between 1950 and 1960, Orange County's population grew to over one million people. Huntington Beach and Orange County experienced the construction of thousands of tract homes and commercial development. With the increasing population came a need for social and government services, which were met by the rapid construction of civic and institutional facilities like the wastewater treatment plant on the subject property. However, for a resource to be considered eligible under Criterion 1, its association must be significantly involved with the broad patterns of history. The Plant was the second wastewater treatment plant constructed by the OCSD, with the first plant being Fountain Valley (Plant No. 1), which would be more reflective of earlier settlement and development of Orange County. Plant No. 2 was constructed in the midst of the area's suburbanizing phenomenon and, therefore, its construction does not appear to have stimulated a development trend in the area nor is it representative of a significant pattern of development, but is rather a reaction to an event stimulated by the area's economic growth. Furthermore, several government facilities were constructed throughout Orange County in response to the growing need for services, including fire and police stations, water and power facilities, and new schools. Plant No. 2 did not play a more significant role in the post-war development of the area more than any of these other facilities and therefore, does not possess a significant association to be considered eligible under Criterion 1.

Based on the research of historical themes related to Plant No. 2, it does not appear to have a significant association with events in wastewater treatment history, with the settlement of Orange County or Huntington Beach, or with any other significant events contributing to the broad patterns of California's history and cultural heritage. **Therefore, Plant No. 2 is does not appear to be eligible for listing in the California Register under Criterion 1.**

Criterion 2: Significant Persons

Under Criterion 2, and resource is eligible if it is associated with the lives of persons important in our past. Research of Plant No. 2 and the OCSD did not reveal any associations with specific personages significant to national, state, or local history. Research did not identify any other significant figures in history that were associated with the Plant. **Therefore, Plant No 2. does not appear to be eligible for listing in the California Register under Criterion 2.**

Criterion 3: Design/Construction

Under Criterion 3, a resource is eligible if it embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values. Plant No. 2 was constructed in 1954 and initially consisted of Digesters A and B, Clarifiers A-C, a power plant building and other support buildings. When constructed, the Plant used the activated sludge method of wastewater treatment. Over time, the Plant added more clarifiers and digesters, as well as support facilities to accommodate the increasing amount of wastewater requiring treatment. The activated sludge method of wastewater treatment was first used in the United States in 1916. However, the method did not gain popularity among municipalities until the post-war era, due to patent litigation throughout the 1920s and 1930s. The activated sludge method quickly became the preferred method of wastewater treatment because the plants were cheap and easy to build. As many communities were experiencing rapid growth, the activated sludge plant was the preferred treatment approach to accommodate growing populations. Plant No. 2 does not appear to be a significant example of the activated sludge plant. It was constructed nearly forty years after the method was first used in the United States and there are no primary or secondary historical sources indicating that the facilities located at Plant No. 2 represent any advancements in the technology. Plant No. 2 is a common example of the activated sludge plant and does not embody the distinctive characteristics of a type, period, region, or method of construction. It is not associated with a significant architect or engineer, and does not represent the work of an important creative individual nor possesses high artistic values. **Therefore, Plant No. 2 does not appear to be eligible for listing in the California Register under Criterion 3.**

Criterion 4: Data Potential

Under Criterion 4, a resource is eligible if it has yielded, or may be likely to yield, information important in prehistory or history. While most often applied to archaeological districts and sites, Criterion 4 can also apply to buildings, structures, and objects that contain important information. In order for these types of properties to be eligible under Criterion 4, they themselves must be, or must have been, the principal source of the important information. Plant No. 2 does not appear to yield significant information that would expand our current knowledge or theories of design, methods of construction, operation, or other information that is not already known. **Therefore, Plant No. 2 does not appear to be eligible for listing in the California Register under Criterion 4.**

Integrity

The California Register recognizes a property's integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. Eligible properties should retain several, if not most, of these aspects. The California Register also requires that a resource retain sufficient integrity to convey its significance, and the property must retain the essential physical features that enable it to convey its historical identity. Integrity is based on significance and understanding why a property is important. Since Plant No. 2 was not identified as significant under any of the applicable national or state criteria, an integrity analysis was not conducted.

Conclusions

Plant No. 2, consisting of multiple buildings, structures, and features associated with the activated sludge method of wastewater treatment, is recommended not eligible for listing in the California Register.

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Appendix A
Personnel

Margarita Jerabek, PhD

Historic Resources Director

EDUCATION

Ph.D., Art History, University of California, Los Angeles

M.A., Architectural History, School of Architecture, University of Virginia

Certificate of Historic Preservation, School of Architecture, University of Virginia

B.A., Art History, Oberlin College

30 YEARS EXPERIENCE

AWARDS

2014 Preservation Award, The Dunbar Hotel, L.A. Conservancy

2014 Westside Prize, The Dunbar Hotel, Westside Urban Forum

2014Design Award: Tongva Park & Ken Genser Square, Westside Urban Forum

2012 California Preservation Foundation Award, RMS Queen Mary Conservation Management Plan, California Preservation Foundation

PROFESSIONAL AFFILIATIONS

California Preservation Foundation

Santa Monica Conservancy

Los Angeles Conservancy

Society of Architectural Historians

National Trust for Historic Preservation Leadership Forum

American Institute of Architects (AIA), National Allied Member

Margarita Jerabek has 30 years of professional practice in the United States with an extensive background in historic preservation, architectural history, art history and decorative arts, and historical archaeology. She specializes in Visual Art and Culture, 19th-20th Century American Architecture, Modern and Contemporary Architecture, Architectural Theory and Criticism, Urbanism, and Cultural Landscape, and is a regional expert on Southern California architecture. Her qualifications and experience meet and exceed the Secretary of the Interior's Professional Qualification Standards in History, Archaeology, and Architectural History. Margarita has managed and conducted a wide range of technical studies in support of environmental compliance projects, developed preservation and conservation plans, and implemented preservation treatment projects for public and private clients in California and throughout the United States.

Relevant Experience

Margarita has prepared a broad range of environmental documentation and conducted preservation projects throughout the Los Angeles metropolitan area and Southern California. She provides expert assistance to public agencies and private clients in environmental review, from due diligence through planning/design review and permitting and when necessary, implements mitigation and preservation treatment measures on behalf of her clients. As primary investigator and author of hundreds of technical reports, plan review documents, preservation and conservation plans, HABS/HAER/HALS reports, construction monitoring reports, salvage reports and relocation plans, she is a highly experienced practitioner and expert in addressing historical resources issues while supporting and balancing project goals.

She is an expert in the evaluation, management and treatment of historic properties for compliance with Sections 106 and 110 of the NHPA, NEPA, Section 4(f) of the Department of Transportation Act, CEQA, and local ordinances and planning requirements. Margarita regularly performs assessments to ensure conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties, and assists clients with adaptive reuse/rehabilitation projects by providing preservation design and treatment consultation, agency coordination, legally defensible documentation, construction monitoring and conservation treatment.

Margarita is a regional expert on Southern California architecture. She has prepared a broad range of environmental documentation and conducted preservation projects throughout the Los Angeles metropolitan area as well as in Ventura, Orange, Riverside, San Bernardino and San Diego counties. Beyond her technical skill, she is a highly experienced project manager with broad national experience throughout the United States. She currently manages PCR's on-call preservation services with the City of Santa Monica, County of San Bernardino Department of Public Works, City of Hermosa Beach, Los Angeles Unified School District, and Long Beach Unified School District.

Candace R. Ehringer, RPA

Senior Cultural Resources Specialist

EDUCATION

M.A., Anthropology, California State University, Northridge

B.A., Anthropology, East Carolina University

19 YEARS EXPERIENCE

AREAS OF EXCELLENCE

CEQA, NEPA, and Section 106 proficient

Manages multi-disciplinary CRM projects

Strong historic resources research skills

PROFESSIONAL AFFILIATIONS

Register of Professional Archaeologists, No. 15146

Society for California Archaeology

Society for Historical Archaeology

QUALIFICATIONS

Exceeds Secretary of the Interior's Standards

CA State BLM Permitted

Certified in CA and NV BLM Protocol

HAZWOPER Certified

Candace is a cultural resources project manager with 19 years of experience working across California. She provides technical and compliance oversight for projects involving archaeological survey, evaluation, and treatment; built environment studies, including the documentation and evaluation of buildings, structures, and districts; and paleontological resources survey and sensitivity assessments. She is proficient in the areas of California Environmental Quality Act (CEQA), National Environmental Policy Act (NEPA), and Section 106 compliance and routinely provides planning and strategic guidance to clients within the larger scope of state and federal regulations. Candace manages multi-disciplinary cultural resources projects that include archaeological, historic architectural, and paleontological resources components. She is adept at building teams of specialists from these resource areas that are uniquely qualified for the particular project at hand and has brought hundreds of projects to successful completion for both public agency and private development clients.

Relevant Experience

Orange County Sanitation District, J-112 Outfall Land Section and OOBS Piping Rehabilitation EIR, Huntington Beach, CA. *Cultural Resources Project Manager*. Candace completed a Phase I study, including records search, Native American contact program, and field survey. She authored the technical report, addressing Native American concerns regarding buried archaeological deposits and providing measures designed to reduce impacts to cultural resources. The Orange County Sanitation District is proposing to make repairs and upgrades to its outfall systems, including refurbishment of the 120-inch ocean outfall and use of the old 78-inch pipeline during the maintenance period.

Irvine Ranch Water District, Tustin Wells MND/EA, Orange County, CA. *Cultural Resources Project Manager*. Candace conducted a Phase I cultural resources study for the Tustin Wells Project. She led the cultural resources survey and authored a technical report in support of the MND/EA. The project will recover and treat impaired groundwater to augment local water supplies and increase water supply reliability. The project was awarded federal funds from the Bureau of Reclamation through the American Recovery and Reinvestment Act of 2009. ESA aided in coordination with the Bureau of Reclamation and successfully met the aggressive schedule requirements for federal funding.

Irvine Ranch Water District, Peters Canyon Channel Water Capture and Reuse Project, Orange County, CA. *Cultural Resources Senior Reviewer.* ESA was contracted by the IRWD to perform a cultural resources survey for the project. The purpose of the proposed project is to divert high selenium nuisance surface and groundwater flows for treatment and reuse via a pipeline. Candace provided senior review of the Archaeological Survey Report, Historic Resource Compliance Report, and EIR section.

Christian Taylor

Senior Architectural Historian

EDUCATION

Master's Degree, Historic Preservation, University of Southern California, Los Angeles

B.A., History, University of Oklahoma, Norman

3 YEARS EXPERIENCE

Christian Taylor is a historic resources specialist with academic and professional experience in assessing historic structures and contributing to California Environmental Quality Act (CEQA)-level documents. With completion of his master's degree imminent, Christian will continue to hone his skills in management of rehabilitation and restoration projects, preparation of documentation of historic contexts, and the use of non-invasive material investigation methods.

Representative Experience

Working for the California Department of Parks & Recreation (DPR), restoration contractors, and environmental consultants, Christian has become versed in the research, writing, and assessment of historic resources from the public and private perspective.

Serving first as a history intern and then interpretive specialist for the DPR, Christian served as the lead representative for the Crystal Cove State Historic Park during the second phase of the cottage restoration project program. His primary role was to liaise with contractors to ensure the project met both the Parks Department and the Secretary of the Interior's Standards.

Also with the DPR, Christian worked alongside resident historians to organize the contributing documentation and assist with the historic landscape report documenting La Purisima Mission's structures and their significance in relation to the original restoration work done in the 1930s.

Christian also familiarized himself with the historic restoration field through the preparation of thousands of pages of documentation associated with the Wilshire Temple and Atascadero City Hall projects. Christian has performed architectural history research, survey and assessment work for the Hermosa Beach General Plan Update and the Capitol Mills project in Los Angeles, and assisted with historic resources assessments for a commercial property and an education center in West Hollywood as well as multiple residential properties in Venice and Los Angeles.

Appendix B
DPR 523 Forms

State of California — The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

PRIMARY RECORD

Primary #
HRI #
Trinomial
NRHP Status Code
Other Listings
Review Code | Reviewer | Date

***Resource Name or #:** Orange County Sanitation District Plant No. 2

P1. Other Identifier:

***P2. Location:** ☐ **Not for Publication** ■ **Unrestricted** ***a. County:** Los Angeles

and (P2b and P2c or P2d. Attach a Location Map as necessary.)

***b. USGS 7.5' Quad:** Newport Beach **Date:** 1965 (photorevised 1981) **T** 6 South; **R** 10 East; Unsectioned; S.B. **B.M.**

c. Address: 22212 Brookhurst Street City: Huntington Beach Zip:

d. UTM: Zone: 11; 411216.39 mE/ 3722562.44mN (approximate center of Plant No. 2)

e. Other Locational Data: (e.g., parcel #, directions to resource, elevation, etc., as appropriate) Elevation: 10 feet amsl

The Orange County Sanitation District Plant No. 2 is located 22212 Brookhurst Street in Huntington Beach, approximately 0.24 miles northeast of the intersection of Highway and Brookhurst Street.

***P3a. Description:** (Describe resource and its major elements. Include design, materials, condition, alterations, size, setting, and boundaries)

The resource is a historic period district associated with the Orange County Sanitation District Plant No. 2. The district is comprised of 33 buildings, structures, and features constructed between 1954 and 1972 all located within the present day boundary of the Plant No. 2 facility.

***P3b. Resource Attributes:** (List attributes and codes) HP8: Industrial Buildings

***P4. Resources Present:** ☐Building ☐Structure ☐Object ☐Site ■District ☐Element of District ☐Other (Isolates, etc.)

P5a. Photo or Drawing (Photo required for buildings, structures, and objects.)

P5b. Description of Photo: (View, date, accession #) Overview of primary clarifiers; IMG_7829; 8/18/17

***P6. Date Constructed/Age and Sources:** ■Historic ☐Prehistoric ☐Both

***P7. Owner and Address:**
Orange County Sanitation District
10844 Ellis Avenue
Fountain Valley, CA 92708

***P8. Recorded by:** (Name, affiliation, and address) C. Taylor
ESA
626 Wilshire Blvd, Suite 1100
Los Angeles, CA 90017

P9. Date Recorded: 8/18/2017

***P10. Survey Type:** (Describe) Pedestrian Survey

***P11. Report Citation:** (Cite survey report and other sources, or enter "none.") Taylor, Christian, *Orange County Sanitation District Plant No. 2 Historic Resources Assessment,* prepared for the Orange County Sanitation District by Environmental Science Associates, October 2017.

***Attachments:** ☐NONE ■Location Map ■Sketch Map ■Continuation Sheet ☐Building, Structure, and Object Record ☐Archaeological Record ■District Record ☐Linear Feature Record ☐Milling Station Record ☐Rock Art Record ☐Artifact Record ☐Photograph Record ☐ Other (List):

State of California- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

LOCATION MAP

Primary #
HRI #

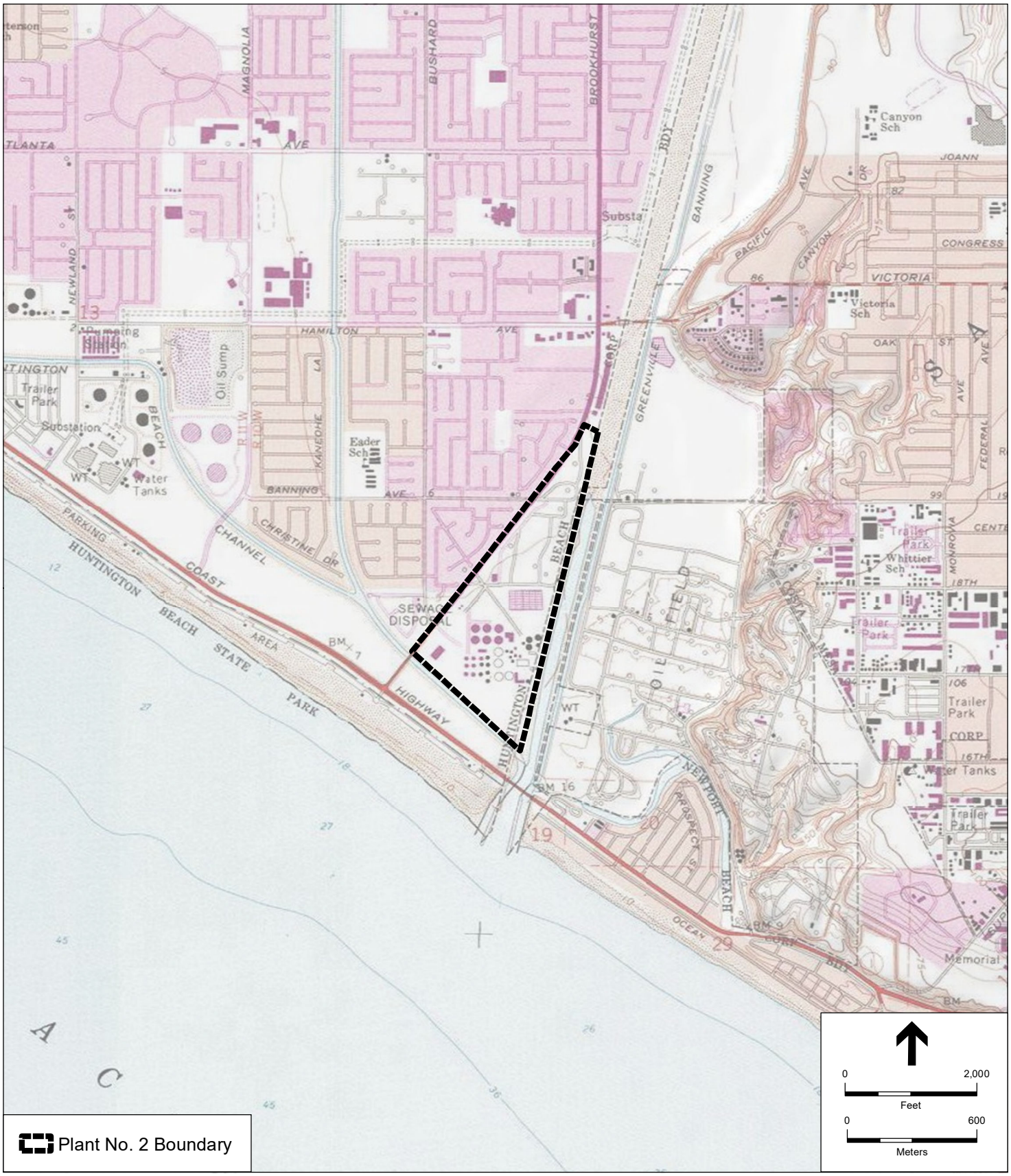
Trinomial

* Resource Name or Number: Orange County Sanitation District Plant No. 2

*Map name: Newport Beach

*Scale: 1:24000

*Date of Map: 1977

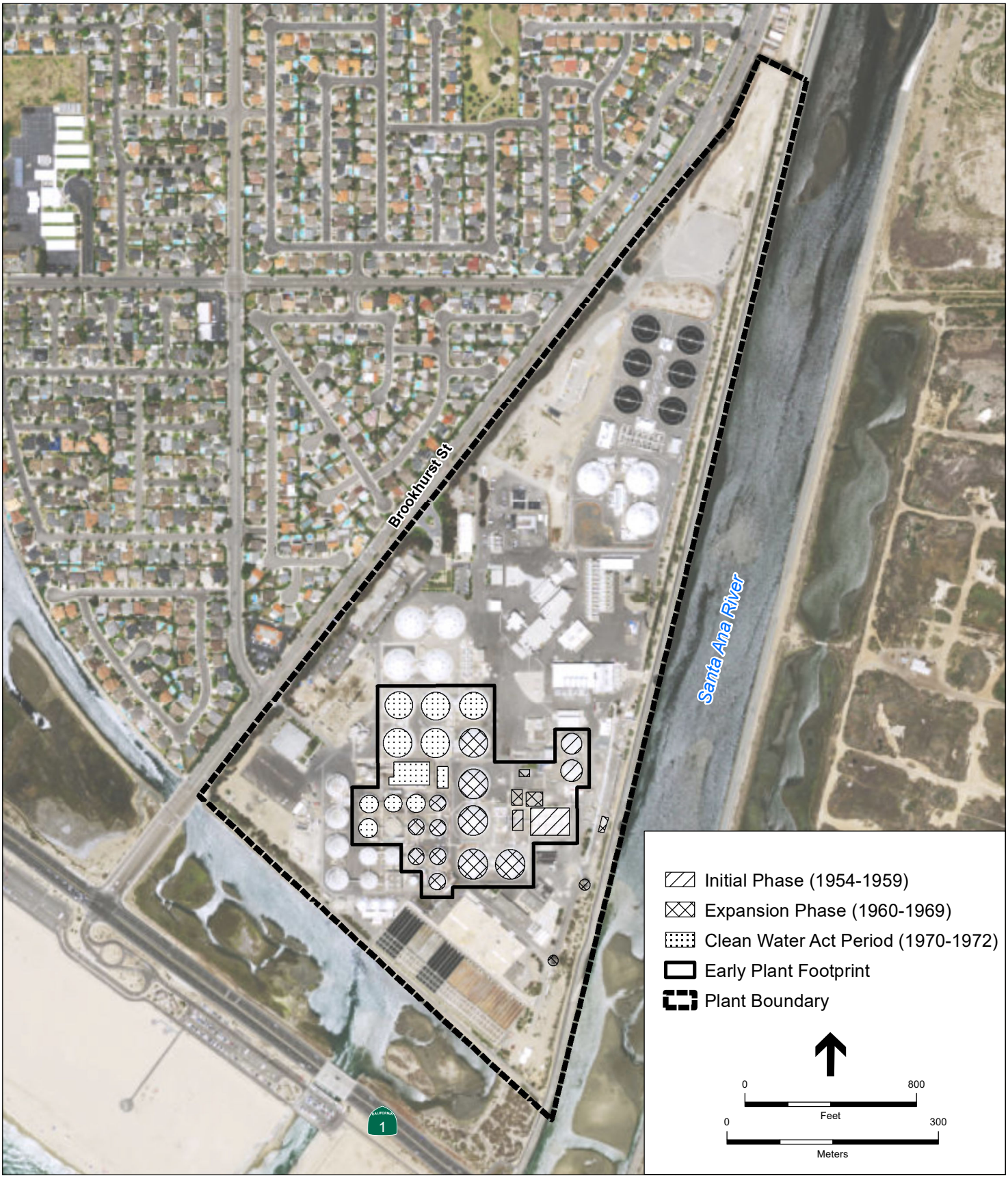


State of California- The Resources Agency
DEPARTMENT OF PARKS AND RECREATION

SKETCH MAP

Primary #
HRI #
Trinomial

* Resource Name or Number: Orange County Sanitation District Plant No. 2



*Drawn By: M.Vader

*Date: 9 October 2017

DPR 523K (1/95)

* Required Information

D1. Historic Name: D2. Common Name: Orange County Sanitation Plant No. 2

***D3. Detailed Description** (Discuss overall coherence of the district, its setting, visual characteristics, and minor features. List all elements of district.):

See continuation sheet

***D4. Boundary Description** (Describe limits of district and attach map showing boundary and district elements.):

The resource boundary includes the entirety of the Orange County Sanitation District Plant No. 2, which is bounded by Brookhurst Street to the northwest, the Santa Ana River to the east, and the Huntington Beach Channel and Highway 1 to the south.

***D5. Boundary Justification:**

The district boundary includes the entirety of the Orange County Sanitation District Plant No. 2 because Plant provides the current setting for the 33 contributing buildings, structures, and features. Furthermore, although many of the structures within the Plant do not meet the California Office of Historic Preservation's 45-year age threshold for listing as a historical resource, these resources may be found to be contributing elements to the district as time goes on and they eventually meet the 45-year threshold.

D6. Significance: Theme post-World War II development; Sanitation
Area Huntington Beach and Orange County **Period of Significance** 1954-1972
Applicable Criteria N/A
(Discuss district's importance in terms of its historical context as defined by theme, period of significance, and geographic scope. Also address the integrity of the district as a whole.)

OCSD Plant No. 2 was evaluated as a historic district for listing in the California Register under Criteria 1-4. The Plant was constructed in 1954 when Orange County was experiencing significant population growth and suburban development. Over time, the Plant expanded to accommodate the County's increasing sanitation needs. The Plant consists of numerous buildings, structures, and features associated with wastewater treatment, with construction dates ranging between 1954 and 2012. Of the numerous buildings, structures, and features, 33 meet the California Office of Historic Preservation's 45-year age threshold for consideration as historical resources. These buildings, structures, and features reflect Plant No. 2's early phases of development, and while they may lack individual distinction, together they have the potential for consideration as a historic district.

See the attached continuation sheet for the remainder of the Plant No. 2 significance discussion

***D7. References** (Give full citations including the names and addresses of any informants, where possible.):

See continuation sheet

***D8. Evaluator:** Christian Taylor, M.H.P. **Date:** 8/18/2017

Affiliation and Address: ESA, 626 Wilshire Blvd., Suite 1100, Los Angeles, CA 90017