Orange County Water District
Talbert Extraction Well Decommissioning Project

Draft Initial Study/Mitigated Negative Declaration

Prepared By
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June 2019

Section **Page**

Tables **Page**

Figures **Page**

Appendices

SECTION 1.0 INTRODUCTION

1.1 Purpose of Environmental Review

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Initial Study has been prepared to disclose and evaluate short-term construction related impacts and long-term operational impacts associated with the implementation of the Orange County Water District (OCWD) OCWD Talbert Extraction Well Decommissioning Project (Project).

Pursuant to Section 15367 of the State CEQA guidelines, the Orange County Water OCWD is the Lead Agency and has the principal responsibility of approving and implementing the proposed Project. As the Lead Agency, OCWD is required to ensure that the Proposed Project complies with CEQA and that the appropriate level of CEQA documentation is prepared. Through preparation of an Initial Study as the Lead Agency, OCWD would determine whether to prepare an Environmental Impact Report (EIR), Negative Declaration or Mitigated Negative Declaration (MND). If the Lead Agency finds that there is no evidence that a project activity either as proposed or as modified to include the mitigation measures identified in the Initial Study prior to its public circulation, would not cause a significant effect on the environment, the Lead Agency may prepare a Negative Declaration or Mitigated Negative Declaration. Based on the conclusions of this Initial Study, OCWD has recommended that the appropriate level of environmental documentation for the Proposed Project is a Mitigated Negative Declaration.

1.2 Statutory Authority and Requirements

This Initial Study/Mitigated Negative Declaration has been prepared in accordance with the CEQA, Public Resources Code Section 21000 et seq. State CEQA Guidelines and OCWD CEQA Environmental Procedures.

1.3 Technical Information and Studies

The following technical studies and information have been incorporated in the environmental impact evaluation prepared for the OCWD-43R Monitoring Well Replacement Project.

- Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis, Vista Environmental, May 2019
- Cultural Resources Records Search, VCS Environmental, April 2019
- Noise Impact Analysis, Vista Environmental, May 2019

SECTION 2.0 PROJECT DESCRIPTION

2.1 Background

The proposed Project involves the destruction and permanent decommissioning of seven (7) extraction wells including demolition of the associated structures and pipeline and construction of one (1) new monitoring well within the City of Huntington Beach, California. The extraction wells and associated pipelines were constructed in the 1960s by OCWD as components of a system intended to extract and convey saline groundwater within the Talbert Gap in an effort to reduce the potential for seawater intrusion into the Orange County Groundwater Basin. Operation of the extraction wells was stopped in 1981 and all components of the system are inactive. The proposed Project would be intended to permanently decommission the inactive components of the extraction well system and install one new monitoring well on City of Huntington Beach right of way.

2.2 Project Location

Figure 1, *Regional Location Map*, and Figure 2, *Local Vicinity Map,* depict the locations of the various Project components from a regional and local vicinity perspective. The Project would generally be located within the southeastern portion of the City of Huntington Beach with the new proposed monitoring well installation near the Santa Ana River along the City of Huntington Beach's easternmost boundary. The specific location of each of the Project components are described separately below.

2.2.1 Extraction Well OCWD-P1

As shown on Figure 3, *Extraction Well OCWD-P1*, extraction well OCWD-P1 is located approximately 50 feet north of the centerline of Adams Avenue and 1,200 feet west of the centerline of Beach Boulevard (AKA Highway 39) in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 11 West and Section 1. The closest sensitive receptor would be a residence located approximately 20 feet to the north.

2.2.2 Extraction Well OCWD-P2

As shown on Figure 4, *Extraction Well OCWD-P2*, extraction well OCWD-P2 is located on the northeast corner of Adams Avenue and Newland Street approximately 60 feet north of the centerline of Adams Avenue and 60 feet east of the centerline of Newland Street in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 11 West, and Section 1. The closest sensitive receptor would be a residence located approximately 60 feet to the northeast.

2.2.3 Extraction Well OCWD-P3

As shown on Figure 5, *Extraction Well OCWD-P3*, extraction well OCWD-P3 is located within the Adams Avenue (frontage road) approximately 70 feet north of the centerline of Adams Avenue and 1,000 feet west of Magnolia Avenue in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 11 West and Section 1.

The closest sensitive receptor would be a residence located approximately 45 feet to the north of the site.

2.2.4 Extraction Well OCWD-P4

As shown on Figure 6, *Extraction Well OCWD-P4*, extraction well OCWD-P4 is located on the south side of Adams Avenue approximately 55 feet south of the centerline of Adams Avenue and 500 feet east of the centerline of Magnolia Avenue in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 7. The closest sensitive receptor would be a residence located approximately 250 feet east of the site.

2.2.5 Extraction Well OCWD-P6

As shown Figure 7, *Extraction Well OCWD-P6*, extraction well OCWD-P6 is located west of the Talbert Channel (D02) approximately 105 feet south of the centerline of Indianapolis Avenue and 1,200 feet east of the centerline of Magnolia Avenue in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 7. The closest sensitive receptor would be a residence located approximately 35 feet to the west.

2.2.6 Extraction Well OCWD-P7

As shown Figure 8, *Extraction Well OCWD-P7*, extraction well OCWD-P7 is located on the east side of Bushard Street 1,000 feet north of the centerline of Atlanta Avenue and 35 feet east of the centerline of Bushard Street in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 7. The closest sensitive receptor would be a residence located approximately 25 feet to the east.

2.2.7 Extraction Well OCWD-P10

As shown Figure 9, *Extraction Well OCWD-P10*, extraction well OCWD-P10 is located on the west levee of the Santa Ana River approximately 860 feet east of the centerline of Brookhurst Street and 890 feet south or the terminus of Atlanta Avenue in the City of Huntington Beach. The well site is located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 17. The closest sensitive receptor would be a residence located approximately 265 feet to the west.

2.2.8 Water Distribution Pipelines

The water distribution pipelines associated with the extraction well system are shown on Figure 10, *Water Distribution Pipelines*. The northwestern extent is oriented east-west along the southern edge of Adams Avenue between Beach Boulevard and the Talbert Flood Channel. The southeast extent of the pipelines associated with the extraction well system is oriented north-south along the eastern edge of Bushard Street and east-west along the northern edge of Atlanta Avenue. The southeast extent of the pipelines associated with the extraction well system runs from Monitoring Well OCWD-P7 to the Talbert Channel.

The abandonment period would be approximately 13 days including capping the northwest extent at approximately 7 locations and the southeast extent at approximately 3 locations. Water supply pipelines that are 12-inch in diameter or smaller will be capped and abandoned in place. Water supply pipelines larger than 12-inch diameter will be filled with sand and abandoned in place.

2.2.9 Extraction Well Vaults

Each of the existing extraction wells include a subsurface vault structure at the well head. The extraction well vaults are approximately 11-feet long by 7 feet-wide by 9-feet deep. After sealing the wells, the upper 3 feet of the vaults would be demolished and the bottom would be permanently filled with slurry. Complete removal is not practical due to their proximity to sensitive structures (e.g. adjacent block walls, in city sidewalks, adjacent busy streets, and on flood control channels).

2.2.10 Proposed New Monitoring Well OCWD-M57

As shown Figure 11, *Proposed Monitoring Well OCWD-M57*, the Project would include a new proposed monitoring well OCWD-M57 that would be located on the west side of Galbar Circle approximately 14 feet west of the centerline of Galbar Circle and 80 feet northeast of the centerline of Dana Drive within the City of Huntington Beach. The well site would be located on USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 17. The closest sensitive receptor would be a residence located approximately 25 feet to the west. The construction period at this site would be approximately one week.

2.3 Demolition and Construction Activities

The proposed destruction and construction activities would occur in four phases. Phase 1 of the proposed Project would involve the permanent destruction of the extraction wells via perforating each of the blank well casings and sealing the wells with cement grout. Phase 2 would involve the filling and partial removal of the below-ground concrete well vaults. Phase 3 would involve the permanent abandonment of the water supply pipeline. Phase 4 would involve the construction of the monitoring well. All destruction and construction operations would occur between the hours of 8:00 a.m. and 5:00 p.m. Monday through Friday or as otherwise specified in the City Encroachment Permits, no nighttime construction would occur.

The decommissioning of each extraction well site would require the implementation of an approximate 10-foot wide by 50-foot long work area during well destruction work. During the night when destruction activities are not occurring, all equipment would be moved off-site for storage.

Well destruction work would take approximately one week per well for well destruction/sealing and approximately one week per well for vault demolition and concrete and asphalt repair. Abandonment and capping of the pipeline would take approximately 13 days to complete including pipeline abandonment and asphalt repair.

The new monitoring well site would require an approximate 20-foot-wide by 50-foot-long work area. During the night when construction activities are not occurring, all equipment would remain within the monitoring well construction site. Well construction work would take approximately one week to complete.

Each of the phases, along with the construction equipment mix for each phase is discussed below.

2.3.1 Phase 1: Extraction Well Destruction

Phase 1 of the Proposed Project would involve properly destroying the extraction wells via perforating the blank well casings and sealing the wells with cement grout. The equipment mix for well destruction is shown in Table 1. Each of the proposed well destructions would occur in five steps; 1) provide traffic control, 2) seal the well screen with sand-cement grout, 3) perforate the upper blank well casing, 4) pressure grout the upper blank well casing, and 5) cap the well with concrete. Table 1, *Extraction Well Destruction Equipment Mix*, provides the anticipated equipment mix for Phase 1.

Table 1 Extraction Well Destruction Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Destruction	Pump Rig	1	9	35	550
Well Destruction	Support Truck	1	4	35	350
Well Destruction	Cement Truck	1	4	7	300
Well Destruction	Cement Pumper	1	4	7	90
Well Destruction	Air Compressor	1	4	7	200
Well Destruction	Pick-up Truck	1	4	35	250
Construction Trips, 35 trip mobilizing 35 trip demobilizing. All trips assumed 50 miles. Source: OCWD, 2019					

2.3.2 Phase 2: Removal of Below-Ground Concrete Well Vaults

Phase 2 of the Proposed Project would involve filling and removal of the below-ground concrete well vaults. The equipment mix for vault removal is shown in Table 2. Each of the proposed well vault removals would occur in three steps; 1) demolish and remove the concrete vaults, 2) back-fill and compact, and 3) repair the concrete/asphalt adjacent the site. Table 2, *Concrete Well Vault Removal Equipment Mix*, provides the anticipated equipment mix for Phase 1.

Table 2 Concrete Well Vault Removal Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Vault Removal	Backhoe	1	9	21	80
Vault Removal	Material Truck	1	3	21	300
Vault Removal	Water Truck	1	5	21	200
Vault Removal	Pick-up Truck	3	4	21	250
Construction Trips, 21 trip mobilizing 21 trip demobilizing. All trips assumed 50 miles. Source: OCWD, 2019					

2.3.3 Phase 3: Abandonment of the Water Supply Pipeline

Phase 3 of the Proposed Project involves abandonment of the water supply pipeline. The equipment mix for pipeline abandonment is shown in Table 3. The proposed pipeline abandonment would occur in three steps; 1) excavate and cap the pipeline at ten locations, 2) fill 24-inch pipeline with sand-cement slurry, and 3) repair the asphalt at pipeline cap locations. Table 3, *Water Supply Pipeline Abandonment Equipment Mix*, provides the anticipated equipment mix for Phase 1.

Table 3 Water Supply Pipeline Abandonment Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Pipeline Abandonment	Backhoe	1	9	10	80
Pipeline Abandonment	Material Truck	1	4	10	300
Pipeline Abandonment	Asphalt Roller	1	4	8	150
Pipeline Abandonment	Cement Truck	1	6	4	300
Pipeline Abandonment	Cement Pumper	1	6	4	90
Pipeline Abandonment	Pick-up Truck	3	4	13	250
Construction Trips, 11 trip mobilizing 11 trip demobilizing. All tips assumed 50 miles. Source: OCWD, 2019					

2.3.4 Phase 4: Monitoring Well Construction

Phase 4 of the Proposed Project would involve monitoring well construction. The equipment mix for monitoring well construction is shown in Table 4. The proposed monitoring well construction

would occur in three steps; 1) mobilization, borehole drilling, and well construction, 2) well development, and 3) demobilization, site clean-up, and vault installation. Step 3 involves minimal equipment and would be done by hand. Table 4, *Monitoring Well Construction Equipment Mix*, provides the anticipated equipment mix for Phase 1.

Table 4 Monitoring Well Construction Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Construction	Air-Vac Truck	1	4	1	425
Well Construction	Drilling Rig	1	9	3	550
Well Construction	Mud Circulation System	1	9	3	75
Well Construction	Support Truck	1	2	3	350
Well Construction	Forklift	1	4	3	75
Well Construction	Pump Rig	1	9	2	325
Well Construction	Air Compressor	1	9	1	200
Well Construction	Electrical Generator	1	3	1	20
Well Construction	Pick-up Truck	2	4	5	250
Construction Trips: 1 trip mobilization, 1 trip demobilization, all trips assumed 50 miles. Source: OCWD, 2019					

2.4 Project Schedule and Equipment Overlap

There would be no overlap of equipment for the various phases of this project. The estimated schedule includes 35 days for well destruction, 21 total days for vault removal, 13 days for pipeline abandonment, and 5 days for well construction. The total estimated Project duration is 74 days.

2.5 Monitoring Well Long-Term Operation and Maintenance Activities

Monitoring well operation involves periodically measuring the depth to groundwater, and collecting groundwater samples for laboratory analysis. The depth to groundwater would be measured by hand using a battery powered wire-line sounder. A submersible pump would be used for periodic sampling. Operation of a submersible pump would require the use of a small portable generator. OCWD staff would collect groundwater samples and record water levels on a quarterly basis or less. In total, the monitoring well would be

visited by OCWD staff up to 8 times per year. One truck and two workers would access each well site during sampling, assuming a round trip length of 40 miles per trip. One truck and one worker would access the well during collection of water levels, assuming a round trip length of 40 miles. Every three to five years OCWD would conduct maintenance activities to redevelop the well. Table 5 identifies the equipment required for well sampling and redevelopment. A typical monitoring well redevelopment process would be completed in one day. All sampling and redevelopment activities would occur during the day.

Table 5 Monitoring Well Sampling and Redevelopment Equipment Mix

Equipment	Pieces of Equipment	Hours per Day	Days of Operation	Horsepower
Sampling Equipment				
Generator	1	4	1	20
Redevelopment Equipment				
Pump Rig	1	9	1	325
Air Compressor	1	9	1	200
Pick-up Truck	1	2	1	300
Sampling & Redevelopment Trips 1, All trips assumed 40 miles.				

2.6 Permits and Approvals

The Initial Study/Mitigated Negative Declaration prepared for the Talbert Barrier Extraction Well Destruction Project would be used as the supporting CEQA environmental documentation for the following approvals and permits.

- Orange County Water District project approval and related construction contracts and agreements.
- Orange County Healthcare Agency Well Destruction Permits.
- Orange County Healthcare Agency Well Construction Permit.
- City of Huntington Beach Encroachment Permit for all locations within City right-of-way.
- County of Orange Encroachment Permits

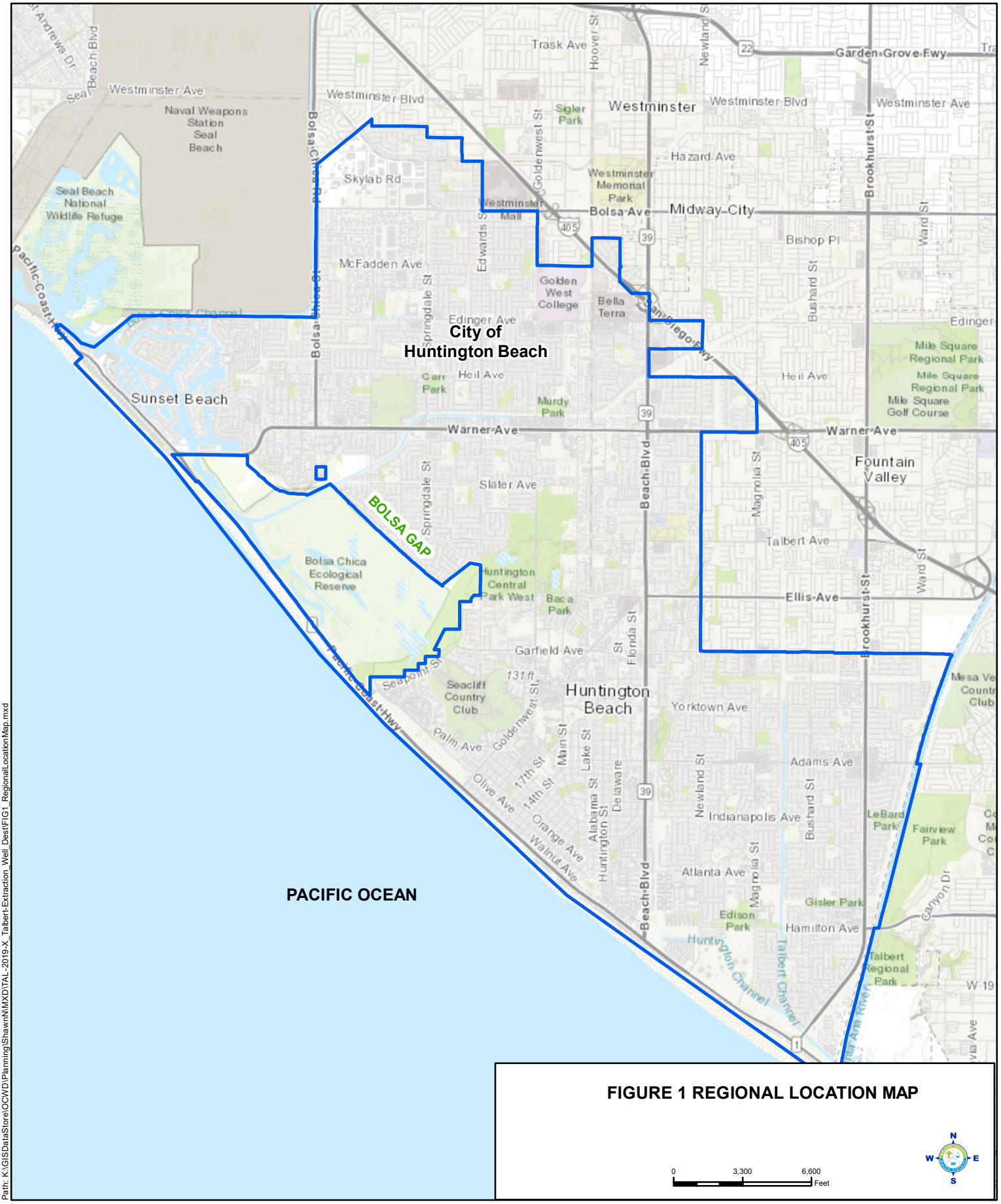

FIGURE 1 REGIONAL LOCATION MAP

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City of Huntington Beach

FIGURE 2 LOCAL VICINITY MAP

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- Monitoring Well
- Proposed OCWD-M57 Well

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Monitoring Well

0 25 50
Feet

Talbert Extraction Well Decommissioning Project

OCWD-P1 Well Site

Figure 3

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Monitoring Well

0 25 50
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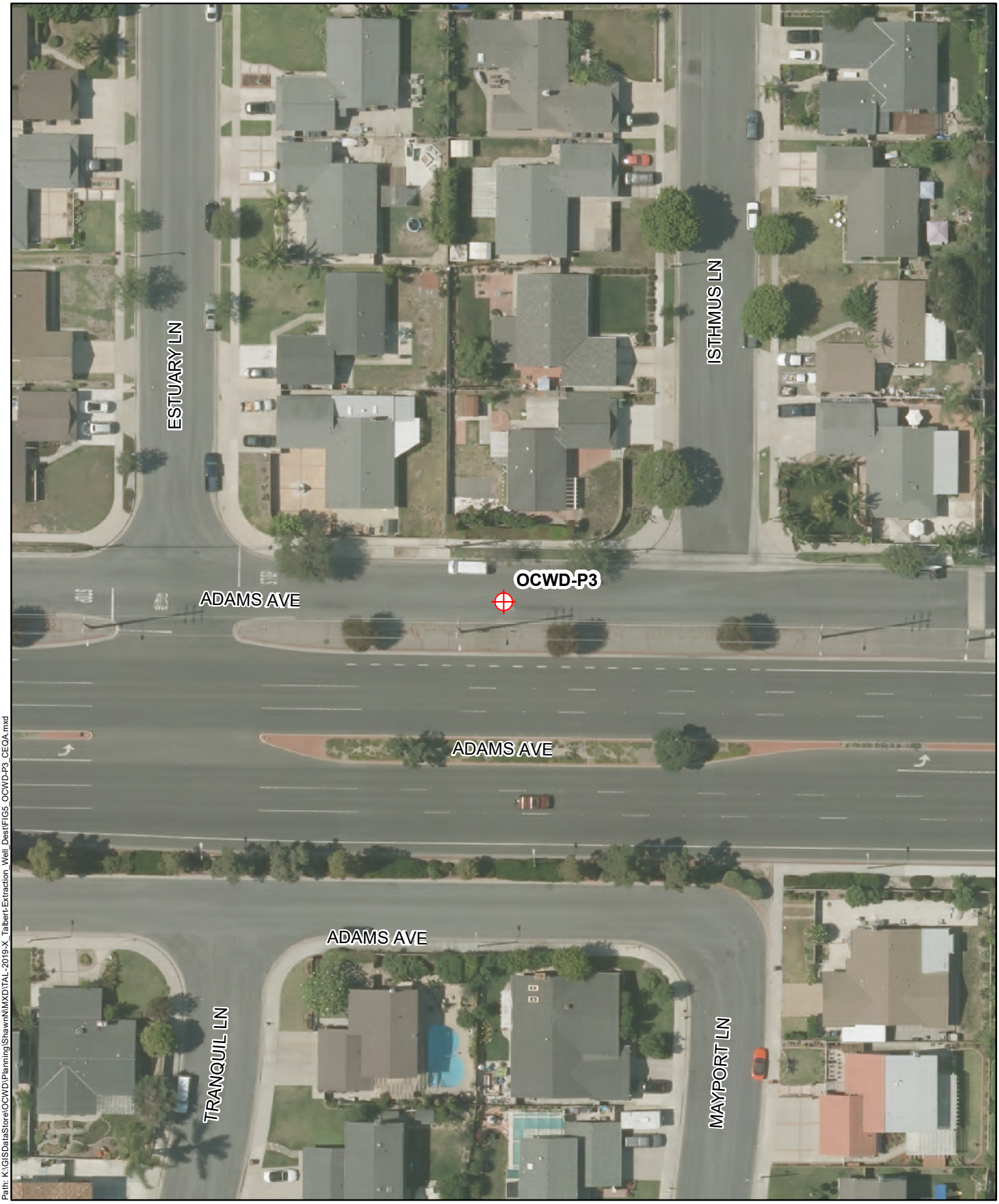
Talbert Extraction Well Decommissioning Project

OCWD-P2 Well Site

Figure 4



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Monitoring Well

Talbert Extraction Well Decommissioning Project

OCWD-P3 Well Site

0 30 60 Feet

Figure 5

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Monitoring Well

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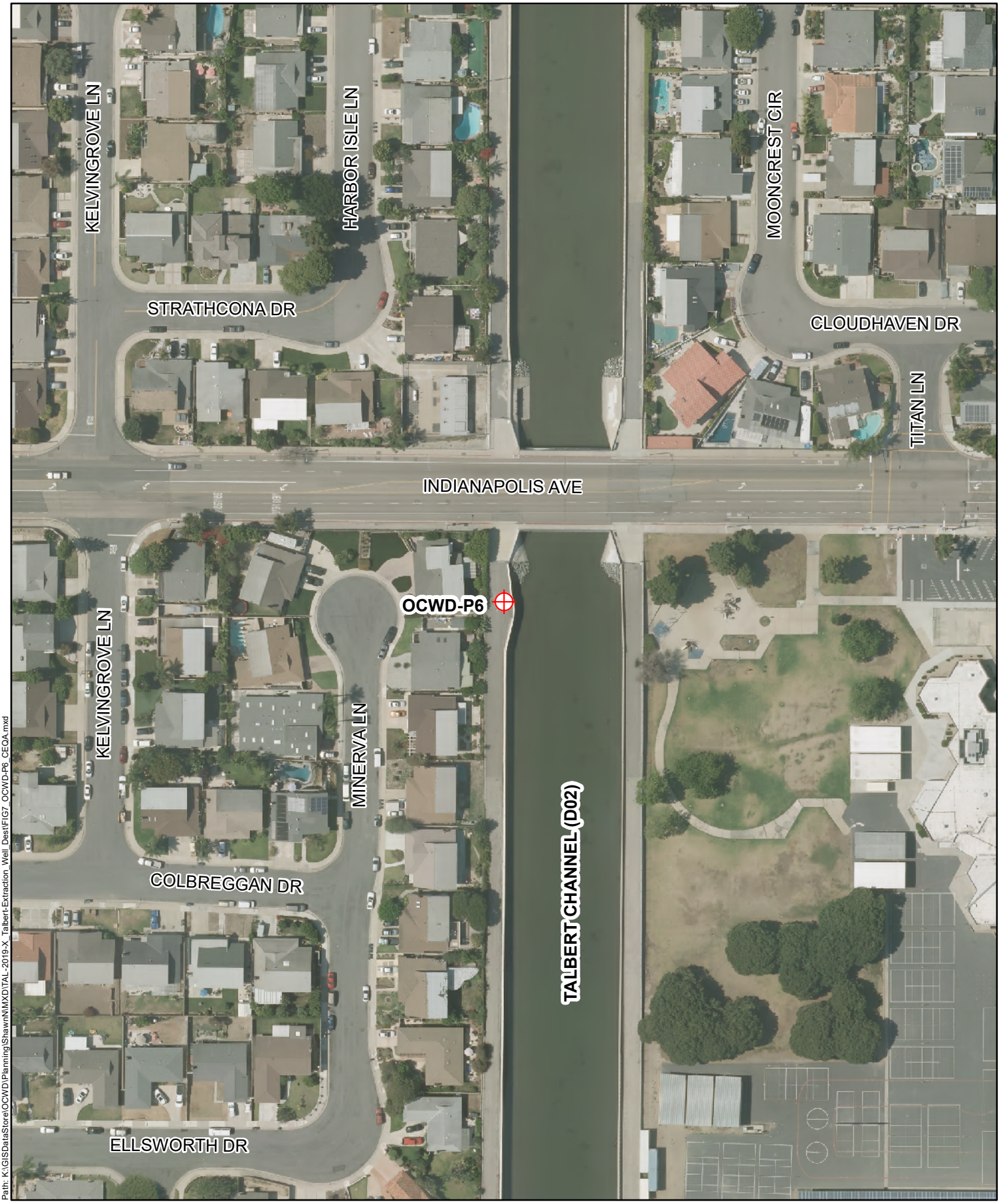
Talbert Extraction Well Decommissioning Project

OCWD-P4 Well Site

Figure 6



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Monitoring Well

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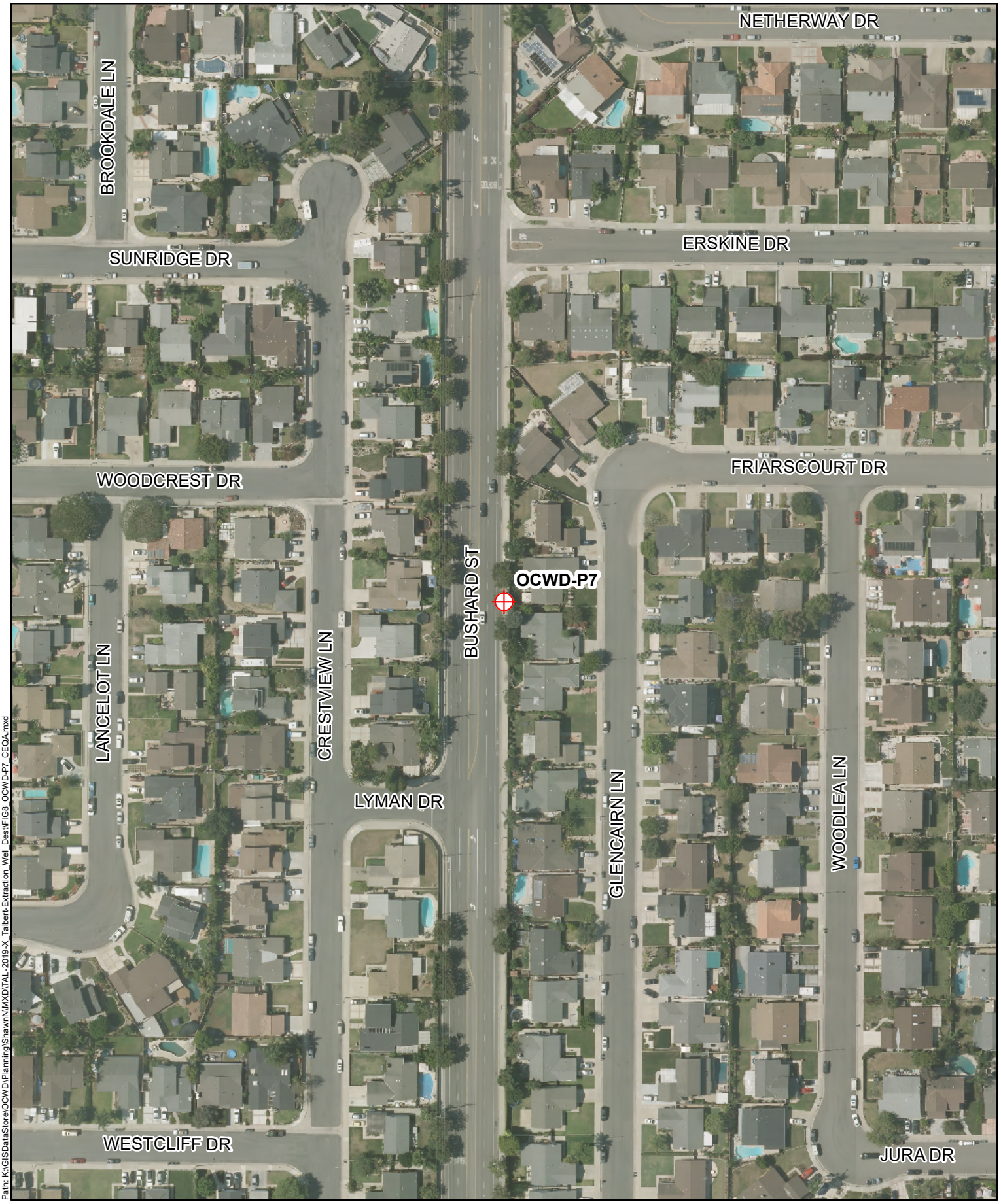
Feet

Talbert Extraction Well Decommissioning Project

OCWD-P6 Well Site

Figure 7



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N
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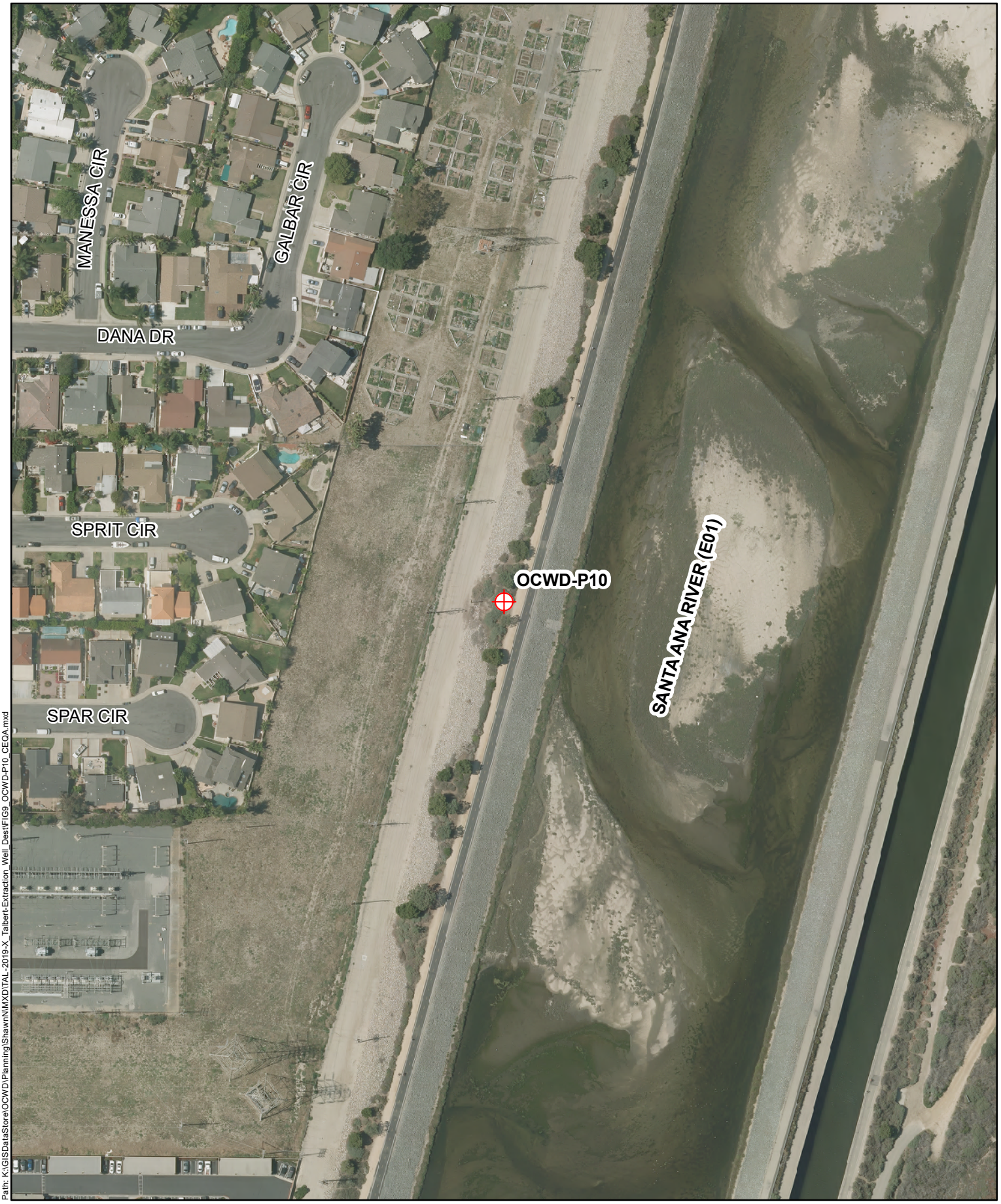
Monitoring Well

0 70 140
Feet

Talbert Extraction Well Decommissioning Project

OCWD-P7 Well Site

Figure 8



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N
W
E
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Monitoring Well

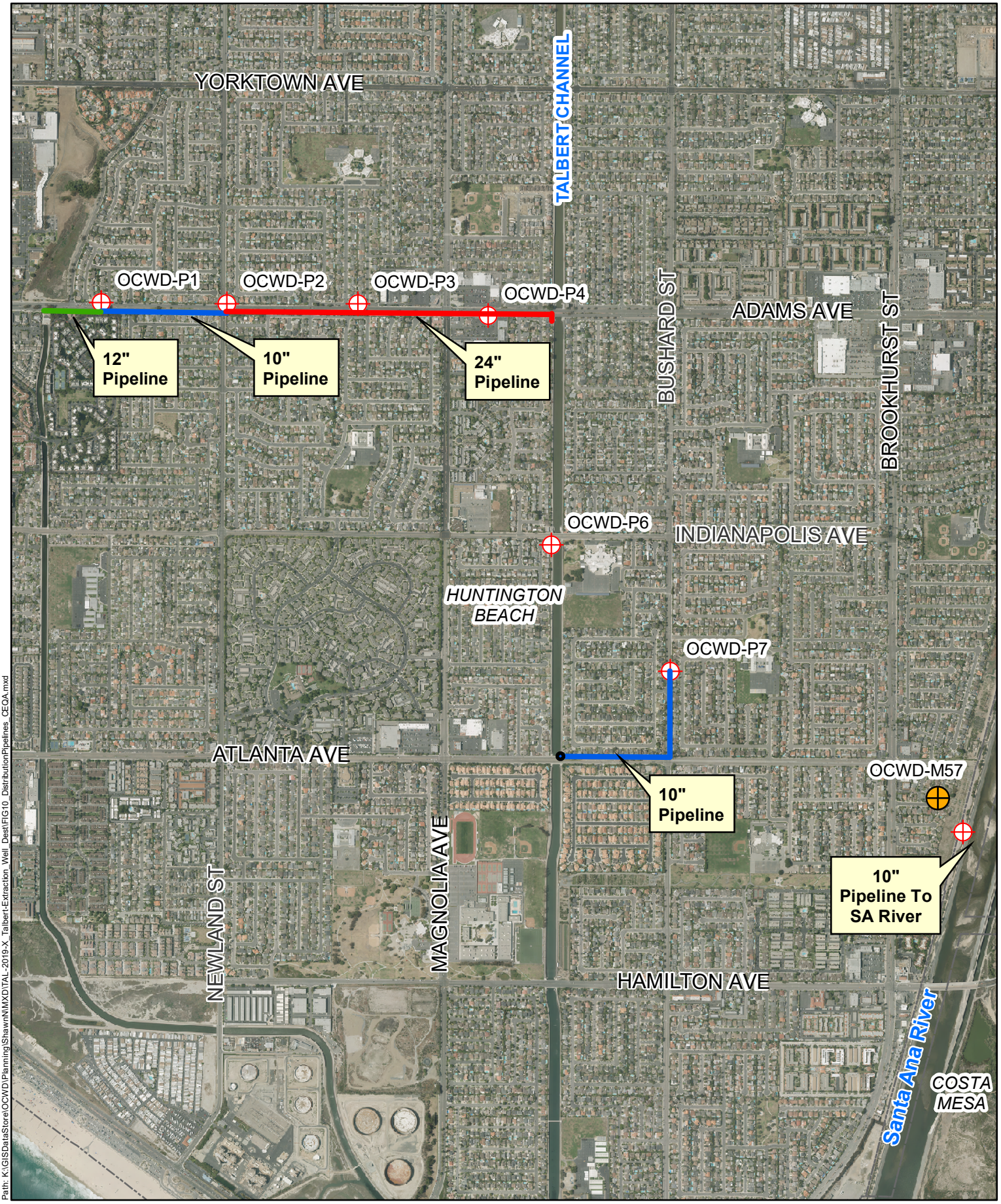
Talbert Extraction Well Decommissioning Project

OCWD-P10 Well Site

0 75 150

Feet

Figure 9



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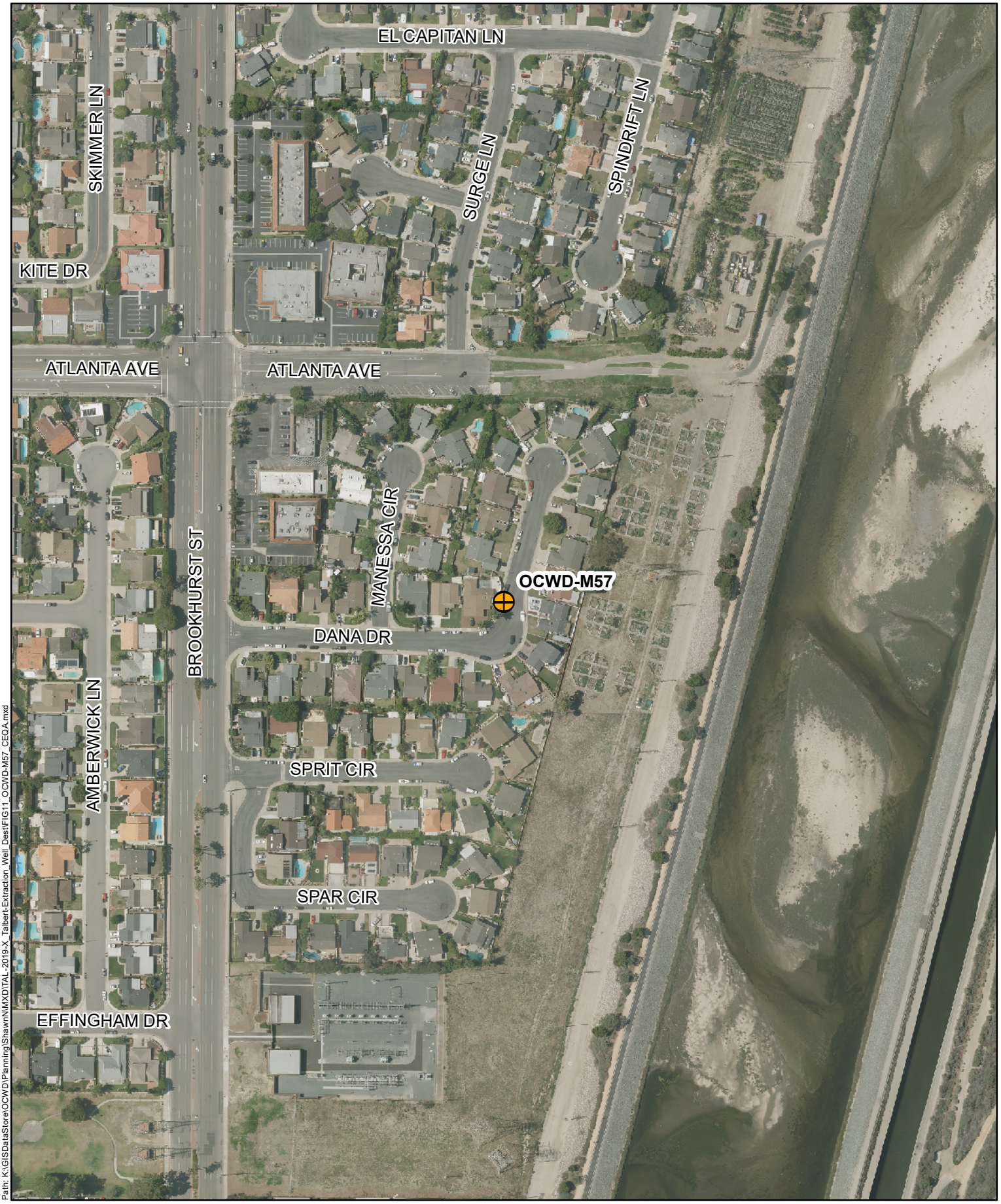
0 750 1,500
Feet

Talbert Extraction Well Decommissioning Project
Well & Pipeline Locations

Extraction Well Proposed Monitoring Well

Figure 10



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N
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Proposed Well Location

Talbert Extraction Well Decommissioning Project

OCWD-P57 Well Site

0 110 220
Feet

Figure 11

2.6.1 Construction Phases and Equipment Mix

Phase 1 of the Proposed Project involves properly destroying the extraction wells via perforating the blank well casings and sealing the wells with cement grout. The equipment mix for well destruction is shown in Table 1. Each of the proposed well destructions would occur in five steps; 1) provide traffic control, 2) seal the well screen with sand-cement grout, 3) perforate the upper blank well casing, 4) pressure grout the upper blank well casing, and 5) cap the well with concrete.

2.7 Monitoring Well Operation and Maintenance Activities

Monitoring well operation involves periodically measuring the depth to groundwater and collecting groundwater samples for laboratory analysis. The depth to groundwater would be measured by hand using a battery-powered wire-line sounder. During a groundwater sampling event, a portable submersible pump would be lowered in each of the well casings. Operation of a submersible pump to lift water from the well would require the use of a small portable generator. OCWD staff would collect groundwater samples and record water levels on a semi-annual basis. In total, the 5-casing monitoring well would be visited by OCWD staff up to two times a year. One truck and two workers would access each well site during sampling, assuming a round trip length of 10 miles per trip. One truck and one worker would access each well site during collection of water levels, assuming a round trip length of 10 miles. Every three to five years OCWD would conduct maintenance activities to redevelop the wells. A typical monitoring well redevelopment process would be completed in one day. All sampling and redevelopment activities would occur during daylight hours. Table 6, *Monitoring Well Sampling and Redevelopment Equipment Mix,* identifies the equipment required for well sampling and redevelopment.

Table 6 Monitoring Well Sampling and Redevelopment Equipment Mix

Equipment	Pieces of Equipment	Hours per Day	Days of Operation	Horsepower
Sampling Equipment				
Generator	1	9	1	20
Redevelopment Equipment				
Pump Rig	1	9	1	325
Air Compressor	1	9	1	200
Pick-up Truck	1	2	1	300
Notes: Sampling & Redevelopment Trips: 1 round trip, All trips assume 10 miles. *Source: OCWD, 2019*				

2.8 Permits, Approvals, and Agreements

The following are additional required approvals and permits.

- Orange County Water District project approval and related construction contracts and agreements.
- Orange County Health Care Agency Well Construction Permit.
- Orange County Public Works Discharge Permit

SECTION 3.0 ENVIRONMENTAL CHECKLIST EVALUATIONS

Project Title:

2. Lead Agency Name/Address: Orange County Water District
18700 Ward street
Fountain Valley, CA 92708

3. Project Contact: Shawn Nevill, Principal Environmental Planner

4. Location: City of Huntington Beach

5. Environmental Determination on the basis of this initial study evaluation, I find that

A	☐	The proposed project COULD NOT have a significant effect on the environment and NEGATIVE DECLARATION will be prepared.
B	X	Although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions to the project have been made by or agreed to by the applicant. A MITIGATED NEGATIVE DECLARATION will be prepared.
C	☐	The proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.
D	☐	Although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR (EIR--) pursuant to applicable standards and (b) have been avoided or mitigated pursuant to that earlier EIR, including revisions or mitigation measures that are imposed upon the project, nothing further is required.
E	☐	Pursuant to Section 15164 of the CEQA Guidelines, an EIR (EIR --) has been prepared earlier and only minor technical changes or additions are necessary to make the previous EIR adequate and these changes do not raise important new issues and significant effects on the environment. An ADDENDUM to the EIR shall be prepared.
F	☐	Pursuant to Section 15162 of the CEQA Guidelines, an EIR (EIR--) has been prepared earlier; however, subsequent proposed changes in the project and /or new information of substantial importance will cause one or more significant effects not previously discussed. A SUBSEQUENT EIR shall be prepared.

_____ _____

Signature/Title Date

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
I - Aesthetics: Except as provided in Public Resources Code Section 21099 would the project				
a) Would the project have a substantial adverse effect on a scenic vista?			X	
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?				X
c) In non-urbanized areas, substantially degrade the existing visual character or quality of public views (those that are experienced from publicly accessible vantage point) of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?			X	
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?			X	
II - Agriculture and Forestry Resources: Would the project				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agriculture use?				X
b) Conflict with existing zoning for agriculture use, or a Williamson Act contract?				X
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code section 12220 (g)), Timberland production as defined by Government Code section 51104 (g))?				X
d) Result in the loss of forest land or conversion of forest land to non-forest use?				X

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agriculture use or conversion of forestland to non-forest use?				X
III - Air Quality: Would the project				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other substantial emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	
IV - Biological Resources: Would the project				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?			X	
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native			X	

resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?				
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?			X	
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?			X	
V - Cultural Resources: Would the project				
a) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?			X	
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?		X		
c) Disturb any human remains, including those interred outside of dedicated cemeteries?			X	
VI - Energy: Would the project				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?			X	
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	
VII - Geology and Soils: Would the project				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for			X	

the area or based on other substantial evidence of a known fault?				
b) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?			X	
c) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?			X	
d) Directly or indirectly cause potential substantial adverse effects involving landslides?				X
e) Result in substantial soil erosion or the loss of topsoil?			X	
f) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or-off site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
g) Be located on expansive soil, as defined in Table 18-1-B of the uniform Building code (1994), creating substantial direct or indirect risks to life or property.			X	
h) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.				X
I) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.		X		
VIII - Greenhouse Gas Emissions: Would the project				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	
IX - Hazards and Hazardous Material: Would the project				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	
d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people riding or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X

X - Hydrology and Water Quality: Would the project				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on-or-offsite?			X	
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on-or-off site?			X	
e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?			X	
f) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would impede or redirect flood flows?			X	

g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?			X	
h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?			X	
XI - Land Use and Planning: Would the project				
a) Physically divide an established community?			X	
b) Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purposes of avoiding or mitigating an environmental effect?				X
XII - Mineral Resources: Would the project				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.				X
XIII - Noise: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?			X	
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	

c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
XIV - Population and Housing: Would the project				
a) Induce substantial unplanned population growth in an area, either directly by proposing new homes and indirectly through extension of roads or other infrastructure?				X
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?				X
XV - Public Services: Would the project				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?				X
Fire Protection				X
Police Protection				X
Schools				X
Parks				X
Other Public facilities				X

XVI - Recreation: Would the project				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?				X
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
XVII - Transportation: Would the project				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature or incompatible uses?			X	
d) Result in inadequate emergency access?			X	
XVIII - Tribal Cultural Resources: Would the project				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1 (K)?			X	
b) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape, sacred place or object with			X	

cultural value to a California native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?				
XIX - Utilities and Service Systems: Would the project				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which services or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	
XX - Wildfire: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?			X	

b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?				X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, or emergency water sources, that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?				X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope stability, or drainage changes?			X	
XXI - Mandatory Findings of Significance				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history.		X		
b) Does the project have impacts that are individually limited, but cumulatively considerable?		X		
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.		X		

SECTION 4.0 ENVIRONMENTAL ANALYSIS

The following environmental analysis responds to the environmental issues listed on the OCWD CEQA Checklist Form. The analysis identifies the level of anticipated impact that would occur at the well site and, where needed, includes the incorporation of mitigation measures to reduce potentially significant impacts to the environment to a level that is below the significance threshold(s).

4.1 Aesthetics

A. Would the project have a substantial adverse effect on a scenic vista?

Less than Significant Impact: Each of the locations of the project components that would be subject to demolition and/or construction activities would occur within existing roadways with the exception of extraction well OCWD P-6 (located west of Talbert Channel) and extraction well OCWD P-10 (located on the west levee of the Santa Ana River. The City of Huntington Beach General Plan does not identify any designated scenic vistas within the City of Huntington Beach. However, the General Plan identifies scenic corridors along roadways throughout the City of Huntington Beach that classified as either a Major Urban Scenic Corridor, Minor Urban Scenic Corridor or a Landscape Corridor. The General Plan identifies development requirements for land uses that are located adjacent to each of the scenic corridor types.

The General Plan designates Adams Avenue as a Landscape Corridor, which are "[c]orridors requiring specific treatment of signage, landscaping, or other details to reinforce the design continuity of the area." The demolition activities associated with extraction wells OCWD P-1 through P-4 would temporarily affect views along Adams Avenue during the construction period. However, the effects of the construction would be similar in nature as other typical roadway/infrastructure improvement projects and would be limited to the short duration of Project demolition and decommissioning activities. Upon completion of the proposed Project, the ground surface at the extraction well sites would be restored to the existing condition and no permanent visible improvements would remain within the Adams Avenue Landscape Corridor that would have any effect on views. No other portions of the Project would occur within an area that is designated as a scenic corridor. Accordingly, the construction and operation of the proposed Project would not adversely impact existing scenic vistas and impacts would be less than significant.

B. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

No Impact: According to the California Department of Transportation Scenic Highways Program, the closest designated and/or eligible State Scenic Highway to the study area would be State Route 1, Pacific Highway, which is located approximately 1.75 miles to the south of the proposed new monitoring well site (which is the nearest Project component to Pacific Highway) and is separated from the Project site by intervening development. At this distance, the proposed Project components would not be within the view shed of motorists on Pacific Highway. Therefore, construction and operation of the Proposed Project would not have no impact on existing scenic resources located along a State Scenic Highway.

C. In non-urbanized areas, would the project substantially degrade the existing visual character or quality of public views (those that are experienced from publicly accessible vantage point) of the site and its surroundings? If the project is in an urbanized area, would the project conflict with applicable zoning and other regulations governing scenic quality?

Less Than Significant: The Project locations would occur within highly urbanized areas in the City of Huntington Beach. Each of the well sites are located within or adjacent to existing roadways with the exception of Extraction Well OCWD-P10, which is located on the west levee of the Santa Ana River. The Santa Ana River is a concrete-lined channel within the area of the OCWD-P10 well site with a public use trail along the top of the levee. The removal of the Extraction Well OCWD-P10 and the other proposed components of the Project would be temporary in nature and the ground surface would be restored to the existing condition upon the completion of the Project. Therefore, the construction and operation of the proposed Project would not substantially degrade the existing visual character or quality of the site and its surrounding area and impacts would be less than significant.

D. Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?

Less Than Significant: The proposed Project would not require any nighttime lighting during construction or operation. Each of the Project components would be located below the ground surface and would not result in the introduction of new sources of glare. Therefore, impacts associated with light and glare would be less than significant.

4.2 Agricultural Resources/Forest Resources

A. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agriculture use?

No Impact: The proposed Project is located within urbanized portions of the City of Huntington Beach. The State of California Farmland Mapping and Monitoring Program indicates that there is no Prime Farmland, Unique Farmland or Farmland of Statewide Importance on any of the portions of the Project site subject to the construction/decommissioning activities. Therefore, the proposed Project would have a less than significant impact to Prime Farmland, Unique Farmland or Farmland of Statewide Importance.

B. Would the project conflict with existing zoning for agriculture use or a Williamson Act Contract?

No Impact: The City of Huntington Beach Zoning Map shows that the Project components are not located within land that is zoned for agriculture land uses. Therefore, the construction and operation of the proposed Project would not conflict with any existing agriculture zoning or existing agriculture leases or contracts on the property. No impacts would occur.

C. Would the project conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources code section 12220 (g)), Timberland production as defined by Government Code section 51104 (g))?

No Impact: The City of Huntington Beach Zoning Map shows that none of the proposed Project components are located on land zoned for forest or timberland. Implementation of the proposed Project would not require a change of zone to, or otherwise conflict with, existing forest or timberlands. No impact would occur.

D. Would the project result in the loss of forest land or conversion of forest land to non-forest use?

No Impact: There is no existing farmland within any of the areas subject to the proposed Project. Therefore, the construction and operation of the proposed Project would not convert existing forest land to non-forest land. No impact would occur.

E. Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agriculture use or conversion of forestland to non-forest use?

No Impact: Currently, there is no existing farmland within any portion of the Project site. Therefore, the construction and operation of the proposed Project would not directly or indirectly result in the loss of any forest land or result in the conversion forest lands to non-forest lands. No mitigation measures are required.

4.3 Air Quality

The following analysis is based on an Air Quality, Energy and Greenhouse Gas Analysis Emissions Impact Analysis Report prepared by Vista Environmental in May 2019. The Air Quality, Energy and Greenhouse Gas Analysis Emissions Impact Analysis are presented in its entirety in Appendix A.

Setting

The project site is located in the South Coast Air Basin (SoCAB). The SoCAB includes Orange County in its entirety and the non-desert portions of Los Angeles, San Bernardino, and Riverside Counties.

Regulatory Framework

Air pollutants are regulated at the national, state and air basin level. Each agency has a different level of regulatory responsibility. The United States Environmental Protection Agency (EPA) regulates at the national level. The California Air Resources Board (ARB) regulates at the state level and the South Coast Air Quality Management District regulates at the air basin level.

Federal Regulation

The EPA handles global, international, national and interstate air pollution issues and policies. The EPA sets national vehicle and stationary source emission standards, oversees approval of all State Implementation Plans, conducts research, and provides guidance in air pollution programs and sets National Ambient Air Quality Standards (NAAQS), also known as federal standards. There are six common air pollutants, called criteria air pollutants, which were identified

resulting from provisions of the Clean Air Act of 1970. The six criteria pollutants are Ozone, Particulate Matter (PM10 and PM 2.5), Nitrogen Dioxide, Carbon Monoxide, Lead and Sulfur Dioxide. The NAAQS were set to protect public health, including that of sensitive individuals.

State Regulation

A State Implementation Plan (SIP) is a document prepared by each state describing air quality conditions and measures that would be followed to attain and maintain NAAQS. The SIP for the State of California is administered by the ARB, which has overall responsibility for statewide air quality maintenance and air pollution prevention. The ARB also administers California Ambient Air Quality Standards (CAAQS), for the ten air pollutants designated in the California Clean Air Act (CCAA). The ten state air pollutants include the six national criteria pollutants and visibility reducing particulates, hydrogen sulfide, sulfates and vinyl chloride.

South Coast Air Quality Management District

The project area is located within the South Coast Air Basin (basin). The air pollution control agency for the basin is the South Coast Air Quality Management District (SCAQMD). The SCAQMD is responsible for controlling emissions primarily from stationary sources. Additionally, SCAQMD in coordination with the Southern California Association of Governments (SCAG) is also responsible for developing, updating and implementing the Air Quality Management Plan (AQMP) for the basin. An AQMP is a plan prepared by an air pollution control district for a county or region designated as non-attainment of the national and/or California ambient air quality standards. The term non-attainment area is used to refer to an air basin where one or more ambient air quality standards are exceeded. Presently, the basin has a National non-attainment status for Ozone, PM10 and PM2.5 and a State non-attainment status for PM10 and PM2.5.

Air Quality Management Plan

SCAQMD develops rules and regulations, establishes permitting requirements for stationary sources, inspects emission sources, and enforces such measures through educational programs or fines, when necessary. SCAQMD is directly responsible for reducing emissions from stationary, mobile, and indirect sources. It has responded to this requirement by preparing a sequence of AQMPs. The Final 2016 Air Quality Management Plan (2016 AQMP) was adopted by the SCAQMD Board on March 3, 2016 and was adopted by CARB on March 23, 2017 for inclusion into the California State Implementation Plan (SIP). The 2016 AQMP was prepared in order to meet the following standards:

- 8-hour Ozone (75 ppb) by 2032
- Annual PM2.5 (12 µg/m3) by 2021-2025
- 8-hour Ozone (80 ppb) by 2024 (updated from the 2007 and 2012 AQMPs)
- 1-hour Ozone (120 ppb) by 2023 (updated from the 2012 AQMP)
- 24-hour PM2.5 (35 µg/m3) by 2019 (updated from the 2012 AQMP)

In addition to meeting the above standards, the 2016 AQMP also includes revisions to the attainment demonstrations for the 1997 8-hour ozone NAAQS and the 1979 1-hour ozone NAAQS. The prior 2012 AQMP was prepared in order to demonstrate attainment with the 24-hour PM2.5 standard by 2014 through adoption of all feasible measures. The prior 2007 AQMP demonstrated attainment with the 1997 8-hour ozone (80 ppb) standard by 2023, through

implementation of future improvements in control techniques and technologies. These “black box” emissions reductions represent 65 percent of the remaining NOx emission reductions by 2023 in order to show attainment with the 1997 8-hour ozone NAAQS. Given the magnitude of these needed emissions reductions, additional NOx control measures have been provided in the 2012 AQMP even though the primary purpose was to show compliance with 24-hour PM2.5 emissions standards.

The 2016 AQMP provides a new approach that focuses on available, proven and cost-effective alternatives to traditional strategies, while seeking to achieve multiple goals in partnership with other entities to promote reductions in GHG emissions and TAC emissions as well as efficiencies in energy use, transportation, and goods movement. The 2016 AQMP recognizes the critical importance of working with other agencies to develop funding and other incentives that encourage the accelerated transition of vehicles, buildings and industrial facilities to cleaner technologies in a manner that benefits not only air quality, but also local businesses and the regional economy. Although SCAQMD is responsible for regional air quality planning efforts, it does not have the authority to directly regulate air quality issues associated with plans and new development projects throughout the Air Basin. Instead, this is controlled through local jurisdictions in accordance to the California Environmental Quality Act (CEQA). In order to assist local jurisdictions with air quality compliance issues the CEQA Air Quality Handbook (SCAQMD CEQA Handbook), prepared by SCAQMD, 1993, with the most current updates found at http://www.aqmd.gov/ceqa/hdbk.html, was developed in accordance with the projections and programs detailed in the AQMPs. The purpose of the SCAQMD

CEQA Handbook is to assist Lead Agencies, as well as consultants, project proponents, and other interested parties in evaluating a proposed project’s potential air quality impacts. Specifically, the SCAQMD CEQA Handbook explains the procedures that SCAQMD recommends be followed for the environmental review process required by CEQA. The SCAQMD CEQA Handbook provides direction on how to evaluate potential air quality impacts, how to determine whether these impacts are significant, and how to mitigate these impacts. The SCAQMD intends that by providing this guidance, the air quality impacts of plans and development proposals will be analyzed accurately and consistently throughout the Air Basin, and adverse impacts will be minimized.

Project Impacts

A. Would the project conflict with or obstruct implementation of the applicable air quality plan?

Less Than Significant: The main purpose of an AQMP is to bring an area into compliance with the requirements of Federal and State air quality standards. The 2016 AQMP is designed to accommodate expected future population, housing, and employment growth and are based on SCAG’s 2012–2035 RTP/SCS and Draft 2016–2040 RTP/SCS, which were developed from City and County General Plans, as well as regional population, housing, and employment projections. As shown in Table 7, *Construction Emissions*, and Table 8, *Operational Pollutant Emissions*, pollutant emissions from the Proposed Project would be less than the SCAQMD thresholds and would not result in a significant impact. No conflict with the 2016 AQMP would occur with the implementation of the Proposed Project and impacts associated with the 2016 AQMP would be less than significant.

Table 7 Construction Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Phase 1 - Extraction Well Destruction						
Onsite	2.28	24.16	15.28	0.06	0.89	0.83
Offsite	0.11	1.27	0.85	0.00	0.26	0.07
Total	**2.39**	**25.43**	**16.13**	**0.06**	**1.15**	**0.90**
Phase 2 – Removal of Below-Ground Concrete Well Vaults						
Onsite	1.44	14.18	8.15	0.02	3.17	1.88
Offsite	0.11	1.27	0.85	0.00	0.17	0.05
Total	**1.55**	**15.45**	**9.00**	**0.02**	**3.34**	**1.93**
Phase 3 – Abandonment of the Water Supply Pipeline						
Onsite	2.57	19.79	13.04	0.03	0.88	0.82
Offsite	0.12	1.10	0.98	0.01	0.30	0.09
Total	**2.69**	**20.89**	**14.02**	**0.04**	**1.18**	**0.91**
Phase 4 – Monitoring Well Construction						
Onsite	3.13	30.32	20.68	0.08	1.16	1.10
Offsite	0.86	6.87	6.62	0.03	5.61	1.46
Total	**3.99**	**37.19**	**27.30**	**0.11**	**6.77**	**2.56**
Maximum Daily Emissions (All Phases)	**3.99**	**37.19**	**27.30**	**0.11**	**6.77**	**2.56**
SCQAMD Thresholds	**75**	**100**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Site Preparation and Grading based on adherence to fugitive dust suppression requirements from SCAQMD Rule 403.
[2] Onsite emissions from equipment not operated on public roads.
[3] Offsite emissions from vehicles operating on public roads.

Source: Vista Environmental, 2019

Table 8 Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Well Sampling Equipment						
Onsite[1]	0.09	0.59	0.32	0.00	0.03	0.03
Offsite[2]	0.03	0.44	0.22	0.00	0.07	0.02
Total	**0.12**	**1.03**	**0.54**	**0.00**	**0.10**	**0.05**
Well Redevelopment Equipment						
Onsite	1.00	8.46	6.05	0.03	0.28	0.27
Offsite	0.05	0.45	0.37	0.00	0.13	0.04
Total	**1.05**	**8.91**	**6.42**	**0.03**	**0.41**	**0.31**
SCQAMD Thresholds	**55**	**55**	**550**	**150**	**150**	**55**
Exceeds Threshold?	No	No	No	No	No	No

Notes:
[1] Onsite emissions from equipment not operated on public roads.
[2] Offsite emissions from vehicles operating on public roads.
Source: CalEEMod Version 2016.3.2.

Source: Vista Environmental, 2019

B. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?

Less Than Significant: The region is a Federal and/or State nonattainment area for PM_{10}, $PM_{2.5}$, and O^3. The proposed Project would contribute particulates and the O^3 precursors VOC and NO^x to the area during short-term Project construction and long-term Project operations. The SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. As described above, construction and operational regional emissions would be less than the SCAQMD CEQA significance thresholds and would be less than significant. Therefore, regional emissions would not be cumulatively considerable, and the impact would be less than significant.

C. Would the project expose sensitive receptors to substantial pollutant concentrations?

Less Than Significant: The following analysis evaluates the potential for sensitive receptors in the project area to be subject to elevated levels of CO and toxic air contaminants.

Carbon Monoxide Hotspots

A CO hotspot is an area of localized CO pollution that is caused by severe vehicle congestion on major roadways, typically near intersections. If a project increases average delay at signalized intersections operating at level of service (LOS) E or F or causes an intersection that would operate at LOS D or better without the project to operate at LOS E or F with the Project, a quantitative screening is required.

The proposed Project would generate a negligible amount of traffic that would be limited to occasional inspection visits and worker commuting during well redevelopment or water sampling. Therefore, the proposed Project would not increase congestion at major signalized intersections in the area. There would be a less than significant impact and no exposure of sensitive receptors to project-generated local CO emissions.

Criteria Pollutants from On-Site Construction

As described above, the proposed Project construction and operational localized impacts would be less than significant. No mitigation measures required.

Toxic Air Contaminants

The greatest potential for toxic air contaminant emissions during construction or operations would be related to diesel PM emissions associated with construction equipment operations. Diesel equipment operations associated with the Proposed Project would be limited to approximately a month at the Project site. The assessment of cancer risk is typically based on a 30- to 70-year exposure period. Because exposure to diesel exhaust would be substantially less than the 30- to 70-year exposure period, the incremental cancer risk to exposed persons would be negligible. The impact would be less than significant.

D. Would the project result in other substantial emissions (such as those leading to odors) adversely affecting a substantial number of people?

Less Than Significant: The proposed Project construction activities and operational well redevelopment and well sampling activities would generate odors. Potential construction odors would mostly be diesel exhaust emissions. There may be situations where construction activity odors would be noticeable by persons working nearby, but these odors would not be unfamiliar or necessarily objectionable. The odors would be temporary and would dissipate rapidly from the source with an increase in distance. Therefore, the proposed Project impacts would be short-term; would not be objectionable to a substantial number of people and would be less than significant.

4.4 Biological Resources

A. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant: The proposed Project construction would occur within a paved roadways surrounded by existing development with the exception of the decommissioning of Extraction Well OCWD-P6 (located west of Talbert Channel) and Extraction Well OCWD-P10 (located on the west levee of the Santa Ana River). No component of the Project would be located within vegetated areas, or within sites that otherwise support plant and/or animal life. Therefore, the Project would not be located within, or otherwise affect any habitat that supports sensitive plant or wildlife species and would not have the ability to directly affect such species due to the nature of the Project site. Accordingly, impacts associated with plant and wildlife species would be less than significant.

B. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?

Less Than Significant: The proposed Project construction would occur within paved roadways surrounded by existing development with the exception of the decommissioning of Extraction Well OCWD-P6 (located west of Talbert Channel) and Extraction Well OCWD-P10 (located on the west levee of the Santa Ana River). The decommissioning activities would occur outside of both the Talbert Channel and the Santa Ana River. No component of the Project would be located within vegetated areas, or within sites that contain riparian habitat or other sensitive natural communities. Accordingly, impacts associated with riparian habitat and or other sensitive natural communities would be less than significant.

C. Would the project have a substantial adverse effect on state or federally protected wetlands (including, but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Less Than Significant: The proposed Project construction would occur within paved roadways surrounded by existing development with the exception of the decommissioning of Extraction Well OCWD-P6 (located west of Talbert Channel) and Extraction Well OCWD-P10 (located on the

west levee of the Santa Ana River). The decommissioning activities would occur outside of both the Talbert Channel and the Santa Ana River. The Project would not be located within, or otherwise affect any State or federally protected wetlands. Accordingly, impacts associated with riparian habitat and or other sensitive natural communities would be less than significant.

D. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

Less Than Significant: The proposed Project construction would occur within paved roadways surrounded by existing development with the exception of the decommissioning of Extraction Well OCWD-P6 (located west of Talbert Channel) and Extraction Well OCWD-P10 (located on the west levee of the Santa Ana River). The decommissioning activities would occur outside of both the Talbert Channel and the Santa Ana River. The Project would not be located within, or otherwise affect the movement of any migratory fish or wildlife species. The proposed decommissioning activities and the installation of a new monitoring well would not result in any permanent components that would have the ability to affect the movement of wildlife. Furthermore, the Project site does not contain any trees or other structures that could be used as a bird nesting site. Accordingly, impacts associated with the movement of fish or wildlife species would be less than significant.

E. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Less Than Significant: The proposed Project would not require the removal of any vegetation, including trees that could be subject to a local policy or ordinance. Accordingly, impacts associated with a conflict with any local policies or ordinances that protect biological resources would be less than significant.

F. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

Less Than Significant: The proposed Project would be located within developed areas and would not be within an area subject to an adopted habitat conservation plan, natural community conservation plan or any other habitat conservation plans. Therefore, the proposed Project would result in less than significant impacts associated with habitat or natural community conservation plans.

4.5 Cultural Resources

Cultural resources include prehistoric archaeological sites, historic archaeological sites, historic structures, and artifacts made by people in the past.

Prehistoric archaeological sites are places that contain the material remains of activities carried out by the native population of the area (Native Americans) prior to the arrival of Europeans in Southern California. Artifacts found in prehistoric sites include flaked stone tools such as projectile points, knives, scrapers, and drills; ground stone tools such as manos, metates, mortars, and pestles for grinding seeds and nuts; and bone tools.

Historic archaeological sites are places that contain the material remains of activities carried out by people during the period when written records were produced after the arrival of Europeans. Historic archaeological material usually consists of refuse, such as bottles, cans, and food waste, deposited near structure foundations.

Historic structures include houses, commercial structures, industrial facilities, and other structures and facilities more than 50 years old.

Records Search

A half-mile cultural resources record search was prepared for the proposed Project at the South Coast Information Center and is included in a memorandum prepared by VCS Environmental in April 2019. The records search included a review of all recorded and built-environmental resources as well as review of cultural resource reports on file identified within a 0.5-mile radius. Additionally, the California Points of Historical Interest, California Historical Landmarks, the California Register of Historical Resources, National Register of Historic Places and the California State Historic Properties Directory listings were reviewed. The record search is presented in Appendix B.

A. Would the project cause a substantial adverse change in the significance of an historical resource pursuant to Section 15064.5?

Less Than Significant Impact: The proposed Project activities are located within an urbanized area. The records search review identified that there were no listed historical properties within any of the areas that would be affected by the construction and operation of the Project. Accordingly, as the Project would not affect any structures or other improvements, the Project would not result in any potential impacts to historical resources and impacts would be less than significant.

B. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Less Than Significant with Mitigation Incorporated: The proposed well site is located within an urbanized area. The records search review identified that there were no listed archeological sites within the areas that would be subject to the decommissioning activities or the installation of the monitoring well. Each of the Project components are located within areas that have been previously subject to ground disturbing activities. However, even though the Project sites have been previously disturbed, because archeological resources are known to occur within the City of Huntington Beach, there would still be some potential, although remote, for the discovery of unknown prehistoric and historical archeological resources. Agriculture remains, foundations, trails, hearths, trash dumps, privies, changes in soil colorations human or animal bone, pottery, chipped or shaped stone are all potential indications of an archaeological site. Therefore, in an abundance of caution, Mitigation Measure CR-1 has been identified to reduce any potential adverse impacts to unknown archeological resources to less than significant.

Mitigation Measure

MM CR-1: During all ground disturbing activities, the OCWD Project Manager and/or their designee (including the Construction Supervisor) shall ensure that, in the event that any evidence of cultural resources are discovered, all work within the vicinity of the find shall immediately halt until a Qualified Cultural Resources Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Cultural Resources Consultant has concluded their assessment. The Qualified Cultural Resources Consultant shall prepare a letter report that documents the find and identifies recommendations for the treatment and/or deposition of the materials.

C. Would the project disturb any human remains, including those interred outside of dedicated cemeteries?

Less Than Significant: No human remains or cemeteries are known to exist within or near the Project area. Therefore, it would be highly unlikely that human remains would be encountered when well drilling activities are occurring. In the event of the accidental discovery or recognition of any human remains, CEQA Guidelines Section 15064.5; Health and Safety Code Section 7050.5; Public Resources Code Section 5097.94 and Section 5097.98 must be followed. Accordingly, impacts would be less than significant.

4.6 Energy

A. Would the project result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?

Less Than Significant: The proposed Project would require the consumption of energy in the use of fossil fuels in combustion engines during the construction phase of the Project. No use of electricity would be required at the site during the construction period beyond the electricity that would be required to convey water that would be used for dust control or electricity needed for construction equipment. Energy would also be expended through the use of petroleum-based fuels and the production of construction materials. The limited scale and duration of the construction of the Project would ensure that energy consumption would be nominal and would not represent a wasteful, inefficient or unnecessary use of energy. During the operational phase of the Project, no electricity or other forms of energy consumption would be utilized with the exception of the occasional extraction of groundwater samples that would require the use of a small portable generator for approximately one day per visit. Therefore, the Project would result in less than significant impacts associated with the consumption of energy.

B. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

Less Than Significant: The proposed Project involves the decommissioning of extraction wells and pipelines along with the installation of a passive monitoring well and would not require the permanent consumption of electricity or other forms of energy beyond the occasional use of a portable generator to extract groundwater samples. Accordingly, due to the nature of the Project and the operational characteristics of the Project, the construction and operation of the proposed

monitoring well would not conflict with any State or local plans related to renewable energy or energy efficiency.

4.7 Geology/Soils

A. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?

Less Than Significant Impact: According to the City of Huntington Beach General Plan, segments of the Newport-Inglewood Fault are designated on the Alquist-Priolo Earthquake Fault Zoning Map within the City's boundaries. These segments of the Newport-Inglewood generally trend northwest to southeast within the western portions of the City, parallel to the coast. Portions of the existing extraction well and associated pipeline network that would be subject to decommissioned by the proposed Project may occur within the Alquist-Priolo Earthquake Zone including Extraction Well OCWD-P1 located near the intersection of Adams Avenue and Beach Boulevard. However, while these components may be within the Alquist-Priolo Earthquake Zone the proposed Project does not construct any new improvements within these areas and the decommissioning activities would be limited to short-term demolition of portions of the existing extraction well and the permanent decommissioning of the pipelines. The proposed activities that may occur within the Alquist-Priolo Earthquake Fault Zone would not have the potential to either directly or indirectly cause result in any risk of loss, injury or death if a rupture were to occur on this fault segment. The proposed new monitoring well would be located out side of any delineated fault zone. Therefore, the proposed Project would result in less than significant impacts associated with the rupture of a known fault.

B. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?

Less Than Significant: As with all projects in Southern California, the proposed Project would be subject to strong seismic ground shaking during earthquakes that originate on local and regional faults, most notably from the Newport-Inglewood Fault that traverses through the western portion of the City of Huntington Beach. Other faults such as the San Andreas, Whittier, Elsinore, Palos Verdes, and Puente Hills Faults would also have the ability to generate seismic events that would generate strong seismic ground shaking within the Project area. Upon completion of the decommissioning process, the existing extraction wells and pipelines would not be subject to any potential for adverse effects as they would be rendered stable and inoperable by the construction activities. In the event a moderate-to-large earthquake occurs, the proposed monitoring well could have the potential for periodic shaking, possibly of considerable intensity. The risk for seismic shaking impacts at the proposed monitoring well site would be similar to other areas in the Southern California region. Moreover, the proposed Project would be installed within an existing roadway and would not be affect any nearby buildings, including the nearest home located adjacent to the Project site. The Project would not include any above-ground facilities or habitable structures that would have the potential to expose persons or property to a risk of loss, injury or death during a seismic event. The proposed monitoring well would be designed to meet the mandatory California Department of Water Resources Well Standards to withstand anticipated

ground shaking caused by an earthquake within an acceptable level of risk. With compliance with the California Department of Water Resources Well Standards potential seismic shaking impacts would be less than significant. Accordingly, due to the nature of the Project which includes the decommissioning of existing below-ground facilities and the construction of a new below-ground monitoring well, the proposed Project would result in less than significant impacts associated with strong seismic ground shaking.

C. Would the project directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

Less Than Significant: Liquefaction is the phenomenon in which loosely deposited soils located within the water table undergo rapid loss of shear strength due to excess pore pressure generation when subjected to strong earthquake induced ground shaking. Liquefaction is known generally to occur in saturated or near-saturated cohesion- less soil at depths shallower than 50-feet below the ground surface. According to the City of Huntington Beach General Plan, several of the locations where decommissioning activities would take place and the location of the proposed monitoring well are within areas designated as having a “High to Very High” liquefaction potential. However, the Project consists of the decommissioning of existing extraction wells and associated pipelines and the installation of a new monitoring well and would not construction any new habitable structures. Moreover, the proposed activities would not have the potential to increase the severity of liquefaction impacts to existing nearby properties beyond the levels that occur in the existing condition. Accordingly, impacts associated with liquefaction would be less than significant.

D. Would the project directly or indirectly cause potential substantial adverse effects involving landslides?

No Impact: Landslides triggered by earthquakes historically have been a significant cause of earthquake damage, responsible for destroying or damaging numerous structures, blocking major transportation corridors and life-line infrastructure systems. Areas that are most susceptible to earthquake-induced landslides are steep slopes in poorly cemented or highly fractured rocks, areas underlain by loose, weak soils and areas on or adjacent to existing landslide deposits.

The proposed Project would be located within relatively flat portions of the City of Huntington Beach within primarily developed areas. According to the City of Huntington Beach General Plan, the Project sites are not located in any areas that are designated as being subject to landslide risks. Accordingly, no impact would occur related to landslides.

E. Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant: The extraction well decommissioning activities and the drilling operations associated with the construction of the proposed monitoring well would primarily occur on paved roadway surfaces and would be limited in scale. The limited amount of soils that would be exposed would not be sufficient to result in substantial amounts of water and/or wind erosion. Accordingly, impacts associated with soil erosion or the loss of topsoil would be less than significant.

F. Would the project be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or-off site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant: The City of Huntington Beach General Plan does not identify the site as occurring within an area of geologic hazard beyond the potential for liquefaction discussed above. The primary geologic concern at the proposed monitoring well site would be potential seismic shaking impacts. As previously identified, the proposed monitoring well would be designed to meet to meet the mandatory California Department of Water Resources Well Standards Bulletin 74-90 and Bulletin 74-81 to withstand anticipated ground shaking caused by an earthquake within an acceptable level of risk. With compliance with California Department of Water Resources Well Standards Bulletin 74-90 and Bulletin 74-81 potential seismic shaking impacts would be less than significant.

G. Would the project be located on expansive soil, as defined in Table 18-1-B of the uniform Building code (1994), creating substantial direct or indirect risks to life or property?

Less Than Significant: Expansive soils are characterized as specific clay materials with the capacity to shrink, swell or otherwise significantly change volume due to variations in moisture content. Expansive soils could cause excessive cracking and heaving of structures with shallow foundations and concrete. Preliminary investigations conducted by OCWD did not identify any soil constraints that would increase the risks for damage. Accordingly, impacts associated with expansive soils would be less than significant.

H. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater?

No Impact: The decommissioning of the existing extraction wells and related pipelines and the construction of the proposed monitoring well would not involve construction of septic tanks, or other alternative wastewater disposal systems. No impacts would occur related to the disposal of wastewater.

I. Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?

Less Than Significant with the Incorporation of Mitigation: The Natural History Museum of Los Angeles County (NHMLAC) was contacted and requested to review their topographical maps for the study area to determine the geology underlying the Project site, the sensitivity of the Project's ground disturbance area, and if any fossil-bearing localities had been recorded. Included within this record search was the general location where the proposed monitoring well would be constructed and therefore the record search is applicable for evaluating potential impacts to paleontological resources and is detailed in Appendix B.

According to NHLMAC, the entire study area has surficial deposits composed of marine older Quaternary Terrace deposits. These deposits are composed of younger Quaternary Alluvium, derived as overbank deposits from the Santa Ana River adjacent to the east of the Project areas. While the NHLMAC indicated that these deposits usually do not contain significant vertebrate

fossils, at least in the uppermost layers, these deposits may be underlain by older Quaternary deposits as occur in the bluffs to the east and west defining the Santa Ana River floodplain. The closest vertebrate fossil locality from older Quaternary deposits is located just northeast of the Project area along Adams Avenue near the top of the mesa bluffs east of the Santa Ana River, which produced fossil specimens of mammoth, Mammuthus, and camel, Camelidae, in sand approximately 15 feet below the top of the mesa that is overlain by shell bearing silts and sands

Based on the NHLMAC record search there are not any recorded vertebrate fossil localities that lie directly within the study area, but there are nearby localities in the same sediments that could contain older Quaternary deposits. The closest fossil vertebrate localities from these particular older Quaternary deposits are LACM 1339, located southwest of the Project site along Adams Avenue near the top of the mesa bluffs east of the Santa Ana River, which produced fossil specimen of mammoth and camel at approximately 15 feet below the ground surface and LACM 4219, located southeast of the Project area in a roadcut for the SR-55 Freeway at Santa Isabel Avenue, that produced fossil specimens of sea turtle approximately 30 feet below the ground surface.

The decommissioning activities are not expected to encounter paleontological resources due to the highly disturbed nature of the soils that would be affected during the destruction of those facilities. During the monitoring well construction, the excavations in the uppermost layers of soil at the Project site are unlikely to uncover significant vertebrate fossils due to the disturbed nature of the Project site and the presence of engineered fill materials (underlaying the existing roadway) in the uppermost portions of the soils. Deeper excavations that extend into older sedimentary deposits could have potential to contain vertebrate fossil remains. Because there could be some potential that older sedimentary deposits could be encountered, Mitigation Measure MM PALEO-1 has been identified. With the implementation of Mitigation Measure MM PALEO-1 potential adverse impacts to unknown paleontological resources would be reduced to less than significant.

Mitigation Measure

MM PALEO-1: During all ground disturbing activities, the OCWD Project Manager and/or their designee (including the Construction Supervisor) shall ensure that, in the event that any evidence of cultural or paleontological resources are discovered, all work within the vicinity of the find shall immediately halt until the District's Qualified Paleontological Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Paleontological Consultant has concluded their assessment. The Qualified Paleontological Consultant shall prepare a letter report that documents the find and identifies recommendations for the treatment and/or deposition of the materials.

4.8 Greenhouse Gas Emissions

The following analysis is based on an Air Quality, Energy and Greenhouse Gas Emissions Impact Analysis report prepared by Vista Environmental in April 2019. The construction equipment mix and hours of operation for well construction proposed for the Project would be consistent with construction equipment mix and hours of operation analyzed for well construction by Vista

Environmental. The Air Quality and Greenhouse Gas Emissions Impact Analysis is presented in its entirety in Appendix A.

Background

Greenhouse Gas Emissions (GHGs) are comprised of atmospheric gases and clouds within the atmosphere that influence the earth's temperature by absorbing most of the infrared radiation that rises from the sun warmed surface and that would otherwise escape into space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). GHGs are emitted by natural processes and human activities. Anthropogenic (caused or produced by humans) emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the greenhouse effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change.

Regulatory Framework

The State of California has approved a number of regulations that relate to GHGs, including the following:

Pavley Regulations: California AB 1493, enacted on July 22, 2002, required the ARB to develop and adopt regulations that reduce greenhouse gases emitted by passenger vehicles and light duty trucks.

Executive Order S-3-05: California announced on June 1, 2005, through Executive Order S 3-05, the following reduction targets for greenhouse gas emissions:

- By 2010, reduce greenhouse gas emissions to 2000 levels.
- By 2020, reduce greenhouse gas emissions to 1990 levels.
- By 2050, reduce greenhouse gas emissions to 80 percent below 1990 levels.

Low Carbon Fuel Standard - Executive Order S-01-07: California approved Executive Order S-01-07 on January 18, 2007. The order mandates that a statewide goal shall be established to reduce the carbon intensity of California's transportation fuels by at least 10 percent by 2020.

SB 1368: In 2006, the State Legislature adopted Senate Bill (SB) 1368, which was subsequently signed into law by the Governor. SB 1368 directs the California Public Utilities Commission to adopt a performance standard for greenhouse gas emissions for the future power purchases of California utilities.

AB 32: The California State Legislature enacted AB 32, the California Global Warming Solutions Act of 2006. AB 32 requires that greenhouse gases emitted in California be reduced to 1990 levels by the year 2020.

SB 97: Passed in August 2007, SB 97 added Section 21083.05 to the Public Resources Code. The code states "(a) On or before July 1, 2009, the Office of Planning and Research shall prepare, develop, and transmit to the Resources Agency guidelines for the mitigation of greenhouse gas emissions or the effects of greenhouse gas emissions as required by this division, including, but not limited to, effects associated with transportation or energy consumption.

A new section to the CEQA Guidelines, Section 15064.4, was added to assist agencies in determining the significance of greenhouse gas emissions. The new section allows agencies the discretion to determine whether a quantitative or qualitative analysis is best for a particular project. However, little guidance is offered on how to determine whether the project's estimated greenhouse gas emissions are significant or cumulatively considerable.

Also amended were CEQA Guidelines Sections 15126.4 and 15130, which address mitigation measures and cumulative impacts respectively. Greenhouse gas mitigation measures are referenced in general terms, but no specific measures are recommended. The revision to the cumulative impact discussion requirement simply directs agencies to analyze greenhouse gas emissions in an EIR when a project's incremental contribution of emissions may be cumulatively considerable, however it does not answer the question of when emissions are cumulatively considerable.

Project Impacts

A. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Less Than Significant: In order to identify significance criteria under CEQA for development projects, the SCAQMD initiated a Working Group which provided detailed methodology for evaluating significance under CEQA. At the September 28, 2010 Working Group meeting, the SCAQMD released its most current version of the draft GHG emissions thresholds, which recommends a tiered approach that provides a quantitative annual threshold of 3,000 $MTCO_2e$ for all land use projects. The OCWD has not adopted its own numeric threshold of significance for determining impacts with respect to GHG emissions and relies upon the SCAQMD draft screening level threshold. Therefore, for purposes of analysis herein, the proposed Project may have a significant adverse impact on GHG emissions if it would generate GHG emissions that exceed the SCAQMD's 3,000 MTCO2e per year screening threshold.

GHG emissions for each construction and operational activities are shown in Table 9, *Project-Related Greenhouse House Gas Emissions*, below. As shown in Table 9, the Project would result in the generation of 7.02 MTCO2e per year, which would be substantially less than the 3,000 MTCO2e significance threshold. Accordingly, GHG impacts associated with construction and operation of the proposed Project would be less than significant.

Table 9 Project-Related Greenhouse House Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Construction				
Phase 1 - Extraction Well Destruction	106.81	0.03	0.00	107.51
Phase 2 – Removal of Below-Ground Concrete Well Vaults	26.89	0.01	0.00	27.07
Phase 3 – Abandonment of the Water Supply Pipeline	22.66	0.01	0.00	22.81
Phase 4 – Monitoring Well Construction	24.82	0.01	0.00	24.95
Total Construction Emissions	181.18	0.06	0.00	182.34
Amortized Construction Emissions (30 Years)[1]	6.04	0.00	0.00	6.08
Operations				
Well Sampling	0.12	0.00	0.00	0.12
Total Well Sampling (4 times per year)	0.48	0.00	0.00	0.48
Well Redevelopment	1.40	0.00	0.00	1.40
Amortized Operational Emissions (3 Years)[2]	0.47	0.00	0.00	0.47
Total Operational Emissions	0.95	0.00	0.00	0.95
Total Annual Emissions (Construction & Operations)	**6.99**	**0.00**	**0.00**	**7.02**
SCAQMD Draft Threshold of Significance				**3,000**
Exceed Threshold?				No

Notes:
[1] Construction emissions amortized over 30 years as recommended in the SCAQMD GHG Working Group on November 19, 2009.
[2] Well Rehabilitation amortized over 3 years as that is the worst-case schedule for well redevelopment.

Source: Vista Environmental, Inc., 2019

B. Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

Less Than Significant: The operation of the proposed Project would generally be passive as there would be no permanent equipment installed in the new monitoring well. OCWD staff would collect groundwater samples and record water levels on a semi-annual basis. In total, the 5-casing monitoring well would be visited by OCWD staff up to two times a year. Every three to five years OCWD would conduct maintenance activities to redevelop the well. A typical monitoring well redevelopment process would be completed in one day

As discussed above, the proposed Project is anticipated to create 7.02 $MTCO_2e$ per year, which is well below the threshold of significance of 3,000 $MTCO_2e$ per year. Additionally, activities associated with the Project would be subject to all applicable federal, state, and regional requirements adopted for the purpose of reducing GHG emissions. Further, because the Project would generate GHG emissions substantially below the threshold of significance of 3,000 $MTCO_2e$ per year, it would not interfere with implementation of any of the State's GHG reduction goals for 2030 or 2050. Therefore, the proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases, resulting in a less than significant impact.

4.9 Hazards/Hazardous Materials

A. Would the project create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?

Less Than Significant: The State of California defines hazardous materials as substances that are toxic, ignitable, flammable, reactive, corrosive, and show high acute or chronic toxicity, are carcinogenic, have bio-accumulative properties that are persistent in the environment or are water reactive.

The long-term operation of the proposed monitoring well would not involve the routine transportation, disposal or emission of hazardous materials or waste. Construction operations associated with the decommissioning activities and the construction of the proposed monitoring well would involve the handling of incidental amounts of hazardous materials, such as fuels, oils and solvents. The construction and operation of the proposed Project would be required to comply with local, state and federal laws and regulations regarding the handling and storage of hazardous materials. Additionally, during construction operations, best management practices would be implemented that would include hazardous material spill prevention and management practices. Mandatory compliance with all applicable regulations pertaining to hazardous materials would ensure that impacts would be less than significant.

B. Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant: The operation of the new monitoring well would not have the potential to release hazardous materials into the environment. As indicated previously, construction operations associated with the decommissioning activities and the construction of the proposed monitoring well would involve the handling of incidental amounts of hazardous materials, such as fuels, oils and solvents. The mandatory compliance with local, State and Federal laws and regulations in-conjunction with implementation of best management practices would ensure that potential hazardous material safety impacts, including those that involve the potential for impacts associated with a release of hazardous materials due to an upset and/or accident condition, would be to a less than significant.

C. Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant: The proposed Project includes sites that are located throughout the City of Huntington Beach. The nearest schools to the Project components are:

- Huntington Christian School (Private), located 0.15 mile east of the pipeline alignment in Bushard Street that would be subject to decommissioning activities;
- Brethren Christian School (Private), located 0.22 miles south of the pipeline alignment within Atlanta Avenue that would be subject to decommissioning activities; and
- Moffett Elementary School, located approximately 0.25 mile south of the pipeline alignment within Adams Avenue that would be subject to decommissioning activities

However, although incidental amounts of hazardous materials, such as fuels, oils and solvents would be temporarily used during the decommissioning activities and during the construction of the monitoring well, the proposed Project would not involve the handling, storage, or emission of substantial amounts of hazardous or accurately hazardous substances. Accordingly, impacts associated with the handling or emission of hazardous materials near schools would be less than significant.

D. Would the project be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment?

No Impact: A review of all sites within the Huntington Beach that have been listed in accordance with Government Code Section 65962.5 indicates that the Project site is not located within or adjacent to a listed hazardous materials site. Accordingly, the project would have no impact associated with hazardous materials sites.

E. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people residing or working in the project area?

No Impact: The nearest airport to the Project site is John Wayne International Airport, located approximately 4.3 miles west of the Project site. The Project site is not located within airport land use plan for John Wane International Airport and would not result in any safety hazards or excessive noise associated with the airport. Accordingly, no impacts related to the airport safety and noise hazards would occur.

F. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

Less Than Significant: The Project would be primarily located within a paved roadways within the City of Huntington Beach. During the decommissioning and construction activities within the roadways, the Project would be required to implement mandatory traffic control plan requirements pursuant to the City of Huntington Beach standard conditions of approval for the required encroachment permits. The implementation of the traffic control plan would ensure that traffic flow within the roadways would be maintained for vehicular use, including the potential use for emergency response or evacuation, to the maximum extent feasible. Moreover, the decommissioning and monitoring well construction activities would be temporary in nature and the roadway surfaces would be restored to their existing condition upon the completion of the Project, which would accommodate emergency response and evacuation routing during Project operation. Accordingly, impacts associated with emergency response plans or evacuation plans would be less than significant.

G. Would the project expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?

No Impact: According to the City of Huntington Beach General Plan, no portion of the Project components would be located within areas that are susceptible to wildland fire impacts. Therefore, no impacts associated with wildland fires would occur.

4.10 Hydrology/Water Quality

Existing Setting

The study area is located in the lower Santa Ana River Watershed. The Santa Ana River Watershed is the largest watershed in coastal Southern California, consisting of over 2,800 square miles and encompassing parts of Riverside, San Bernardino and Orange Counties. The primary surface water body within the study area is the Santa Ana River. The study area also overlies the Orange County Groundwater Basin.

Santa Ana River

The Santa Ana River is the most prominent hydrologic feature within the watershed. The Santa Ana River is over 100 miles in length and has over 50 contributing tributaries. The headwaters for the Santa Ana River are in the San Bernardino Mountains to the north. The river extends westerly through the Santa Ana Valley to the Prado Basin where it is joined by several tributaries near Prado Dam. Downstream of Prado Dam, the Santa Ana River flows through the Santa Ana Mountain Canyon into Orange County before discharging into the Pacific Ocean. The flows of the Santa Ana River consist of storm flows and perennial flow (base flow) that increases in the winter and decreases in the summer. The base flow of the Santa Ana River consists almost entirely of treated wastewater discharged from upstream waste water treatment plants. The base flow of the Santa Ana River is the primary source of water to recharge the Orange County Groundwater Basin. Since 1933, OCWD has been diverting water from the Santa Ana River for groundwater recharge. Surface water flows of the Santa Ana River are diverted into a series of recharge basins to replenish the groundwater basin. Virtually all of the base flow of the Santa Ana River is captured by OCWD for groundwater recharge and only a portion of the total storm flow of the Santa Ana River is captured by OCWD for groundwater recharge. The storm water that is not captured by OCWD is lost to the ocean.

Orange County Groundwater Basin

The Orange County Groundwater Basin underlies central and northern Orange County and is bordered by the Santa Ana Mountains to the east, the Pacific Ocean to the west, the Newport-Inglewood Fault to the southwest and Coyote Hills to the north. The basin is contiguous and directly connected with the Central Basin of Los Angeles County to the northwest. The basin reaches depths of over 2,000 feet and is comprised of a complex series of interconnected sand and gravel deposits. The aquifer is divided into three sections, shallow, principal and deep. Most of the water in the basin is extracted from the principal aquifer.

Regulatory Setting

The following is discussion of Federal, State and local water resource programs that are applicable to the Proposed Project.

Clean Water Act

The objectives of the Clean Water Act are to restore and maintain the chemical, physical, and biological integrity of Waters of the United States. The Clean Water Act establishes basic guidelines for regulating discharges of pollutants into the Waters of the United States and requires

states to adopt water quality standards to protect health, enhance the quality of water resources and to develop plans and programs to implement the Act. Below is a discussion of sections of the Clean Water Act that are relevant to the Proposed Project.

Section 303 (d) Water Bodies

Under Section 303 (d) of the Clean Water Act, the State Water Resources Control Board (SWRCB) is required to develop a list of impaired water bodies. Each of the individual Regional Water Quality Control Boards are responsible for establishing priority rankings and developing action plans, referred to as total maximum daily loads (TMDLs) to improve water quality of water bodies included in the 303(d) list.

Within Orange County, there are two reaches of the Santa Ana River. Reach 1 extends from the Tidal prism to 17th Street in the City of Santa Ana and Reach 2 extends from 17th Street to Prado Dam. Presently, Santa Ana River Reach 2 (17th Street in Santa Ana to Prado Dam) has been listed as impairment for indicator bacteria. The Santa Ana River Reach 1 (Pacific Ocean to 17th Street in Santa Ana) is not listed as impaired.

Section 402

Section 402 of the Clean Water Act established the National Pollution Discharge Elimination System (NPDES) to control water pollution by regulating point sources that discharge pollutants into Waters of the United States. In the State of California, the EPA has authorized the State Water Resources Control Board (SWRCB) to be the permitting authority to implement the NPDES program. The SWRCB issues two baseline general permits, one for industrial discharges and one for construction activities (General Construction Permit). Additionally, the NPDES Program includes the long-term regulation of storm water discharges from medium and large cities through the MS4 Permit Program.

Short-Term Storm Water Management

Storm water discharges from construction sites with a disturbed area of one or more acres are required to either obtain individual NPDES permits for storm water discharges or be covered by a General Construction Permit. Coverage under the General Construction Permit requires filing a Notice of Intent with the State Water Resources Control Board and preparation of Storm Water Pollution Prevention Plan (SWPPP). Each applicant under the Construction General Permit must ensure that a SWPPP would be prepared prior to grading and implemented during construction. The primary objective of the SWPPP is to identify, construct, implement, and maintain Best Management Practices (BMPs) to reduce or eliminate pollutants in storm water discharges and authorized non-storm water discharges from the construction site during construction. BMPs include: programs, technologies, processes, practices, and devices that control, prevent, remove, or reduce pollution.

Long-Term Storm Water Management

The Proposed Project would be implemented in the City of Huntington Beach. The City of Huntington Beach is a co-permittee to the County of Orange NPDES MS4 Storm Water Permit and would be responsible for the implementation of the permit requirements. Under the NPDES

MS4 Storm Water Permit, construction projects are defined as Priority Projects or Non-Priority Projects based on the type of project and/or level of development intensity.

Priority Projects

Projects that are determined to be a Priority Project are required to prepare a Priority Project WQMP based on the County of Orange Model WQMP. The Priority Project WQMP is required to demonstrate that a project would be able to infiltrate, harvest, evapotranspire or otherwise treat runoff generated from an 85th percentile storm over a 24-hour period. The Model WQMP requires that Low Impact Development (LID) site design principles be incorporated into the project to reduce and retain runoff to the maximum extent practicable. Such LID site design principles include, but are not limited to, minimizing impervious areas, and designing impervious areas to drain to pervious areas.

Non-Priority Projects

Certain projects that do not meet the Priority Project criteria are considered Non-Priority Projects and require preparation of Non-Priority Project Plans (NPP). The Non-Priority Project Plan requires documentation of the selection of site design features, source control and any other BMPs included in a project.

State of California Porter Cologne Water Quality Control Act

The Porter Cologne Water Quality Act of 1967 requires the SWRCB and the nine RWQCBs to adopt water quality criteria for the protection and enhancement of Waters of the State of California, including both surface waters and groundwater. The SWRCB sets statewide policy and together with the RWQCB, implements state and federal water quality laws and regulations. Each of the nine regional boards adopts a Water Quality Control Plan or Basin Plan. The study area is included within the Santa Ana Region Basin Plan.

Basin Plan

Beneficial Uses

The Santa Ana Region Basin Plan (Basin Plan) designates beneficial uses for waters for the Santa Ana River Watershed and identifies quantitative and narrative criteria for a range of water quality constituents applicable to certain receiving water bodies in order to protect these beneficial uses. Specific criteria are provided for the larger water bodies within the region as well as general criteria or guidelines for ocean waters, bays and estuaries, inland surface waters, and groundwater basins. The beneficial uses in the Basin Plan are described in Table 11, *Beneficial Use Descriptions*.

Table 10 Beneficial Use Descriptions

Abbreviation	Beneficial Use
GWR	Groundwater Recharge waters are used for natural or artificial recharge of groundwater for purposes that may include, but are not limited to, future extraction, maintaining water quality or halting saltwater intrusion into freshwater aquifers.

Abbreviation	Beneficial Use
REC 1	Water Contact Recreation waters are used for recreational activities involving body contact with water where ingestion of water is reasonably possible. These uses may include, but are not limited to swimming, wading, water skiing, skin and scuba diving, surfing, whitewater activities, fishing and use of natural hot springs.
REC 2	Non-Contact Water Recreation waters are used for recreational activities involving proximity to water, but not normally body contact with water where ingestion of water would be reasonably possible. These uses may include, but are not limited to picnicking, sunbathing, hiking, beachcombing, camping, boating, tide pool and marine life study, hunting, sightseeing and aesthetic enjoyment in-conjunction with the above activities.
WARM	Warm waters support warm water ecosystems that may include but are not limited to, preservation and enhancement of aquatic habitats, vegetation, fish, and wildlife, including invertebrates.
LWARM	Limited Warm Freshwater Habitat waters support warm water ecosystems which are severely limited in diversity and abundance.
COLD	Cold Freshwater habitat waters support cold water ecosystems.
BIOL	Preservation of Biological Habitats of Special Significance waters support designated areas of habitats.
WILD	Wildlife Habitat waters support wildlife habitats that may include, but are not limited to the preservation and enhancement of vegetation and prey species used by waterfowl and other wildlife.
RARE	Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.
MUN	Municipal and Domestic Supply waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to, drinking water supply.
AGR	Agricultural Supply waters are used for farming, horticulture or ranching. These uses may include, but are not limited to irrigation, stock watering, and support of vegetation for range grazing.
IND	Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well depressurization.

Abbreviation	Beneficial Use
PROC	Industrial Process Supply waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.
NAV	Navigation waters are used for shipping, travel, or other transportation by private, commercial or military vessels.
POW	Hydropower Generation waters are used for hydroelectric power generation.
COMM	Commercial and Sportfishing waters are used for commercial or recreational collection of fish or other organisms
EST	Uses of water that support estuarine ecosystems including, but not limited to preservation or enhancement of estuarine habitats, vegetation, fish, shell fish or wildlife.
WET	Uses of water that support wetland ecosystems, including but not limited to preservation or enhancement of wetland habitats, vegetation, fish, shellfish, or wildlife, and other unique wetland functions which enhance water quality, such as providing flood and erosion control, stream bank stabilization, and filtration and purification of naturally occurring contaminants.
MAR	Use of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shell fish or wildlife.
MIGR	Uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
SPWN	Use of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
SHELL	Use of water that support habitats suitable for the collection of filter-feeding shellfish for human consumption, commercial or sports purposes.

As shown in Table 12, *Study Area Water Body/Drainage Facilities Beneficial Uses*, and Table 11, *Study Area Surface Water Beneficial Uses*, the Basin Plan identifies beneficial uses for the Reach 1 of the Santa Ana River and the Orange County Groundwater Water Basin.

Table 11 Study Area Surface Water Beneficial Uses

Santa Ana River Reach 1
Recreation 2
Recreation 1
Warm Water Habitat
Wild Water Habitat

Table 12 Study Area Groundwater Basin Beneficial Uses

Orange County Groundwater Basin
Municipal Supply Waters
Agriculture Supply Waters
Industrial Process Supply Waters
Industrial Service Supply Waters

Water Quality Objectives

The Basin Plan establishes water quality objectives to ensure the protection of beneficial uses. As shown in Table 13, *Water Quality Objectives (mgl)*, have only been established for the Orange County Groundwater Basin.

Table 13 Water Quality Objectives (mgl)

Reach	TDS	HARD	Na	Cl	TIN	SO4	COD	B
Santa Ana River Reach 1	NL	NL	NL	NL	NL	NL	NL	NL
Orange County Groundwater Basin	580	NL	NL	NL	NL	NL	NL	NL

Project Impacts

A. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?

Less Than Significant: As shown in Table 11 and Table 12, the Basin Plan identifies Beneficial Uses for the Santa Ana River and the Orange County Groundwater Basin and water quality objectives for the Orange County Groundwater Basin (within the Project area). The following analysis evaluates if the proposed Project would conflict with beneficial uses and water quality objectives established in the Basin Plan and if the proposed Project would further impair any listed 303 (d) Impaired Water Bodies.

Beneficial Uses

During construction there would be the potential that nominal amounts of surface water could be generated from the well site and conveyed into local drainage facilities. Surface water generated from the Project site would ultimately drain into the Pacific Ocean via the Talbert Channel or Reach 1 of the Santa Ana River. During construction, Best Management Practices (BMPs) would be implemented to minimize any surface water runoff impacts. Such control measures could include street weeping, storm drain inlet protection, tracking controls, waste management and regular inspections and maintenance of BMPs. With the implementation mandatory BMPs, potential construction-related storm water impacts would be less than significant.

Effluent water would be generated as a component of well drilling and well development activities for the proposed monitoring well. Depending on levels of turbidity, the effluent water be either discharged into a local storm drain or placed in a container and disposed offsite. The discharging of the effluent water in the local storm drain system would require a mandatory NPDES discharge permit from the Regional Water Quality Control Board which would establish the necessary water quality standards to discharge into the local storm drain system, ensuring that impacts to water quality would be less than significant. In the event that effluent water would not meet storm drain system discharge requirements, the effluent would be collected and conveyed by truck to an offsite location for disposal in accordance with all local, State and federal requirements. Accordingly, impacts associated with effluent would be less than significant and no mitigation would be required.

The long-term operation of the monitoring well would involve periodic water sampling and maintenance activities. During water quality sampling and maintenance activities, small amounts of water in the monitoring well casing would be pumped and back-washed. The water that would be extracted would consist of high-quality groundwater and would be discharged into the local storm water drainage system. Accordingly, the nominal amounts of water generated during monitoring well operation would not conflict with beneficial uses established for the Santa Ana River.

Water Quality Objectives

As shown in Table 13, the only water body within the study area that has water quality objectives would be the Orange County Groundwater Basin. The Basin Plan establishes a Total Dissolved Solid (TDS) water quality objective of 580 mgl. There is the potential surface water runoff generated from construction activities could contain elevated levels of TDS. However, the surface water runoff would be controlled by BMP's and it would be unlikely that it would infiltrate into the groundwater basin and conflict with the Basin Plan Water Quality objectives.

Section 303 (d) Impaired Water Bodies

The RWQCB does not list any impaired water bodies within the study area for the proposed Project. Therefore, the proposed Project would result in less than significant impacts associated with impaired water bodies.

B. Would the project substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?

No Impact: The existing extraction wells and pipelines are non-operational in the existing condition. Therefore, the decommissioning of these facilities would have no impact on groundwater management within the basin. The purpose of the new monitoring well is to monitor potential seawater intrusion and groundwater flow as a component of OCWD's overall efforts to protect the groundwater basin. The development and operation of the monitoring well would not extract groundwater in a quantity that would have any impact on the groundwater supply and the effect of the monitoring well would further the sustainable groundwater management of the basin. No mitigation is required.

C. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on-or-offsite?

Less Than Significant: Construction activities for the decommissioning activities and the proposed monitoring well would be confined to the limited construction areas that have been identified for the Project and would not alter any existing drainage patterns within the the surrounding area. The drilling operations associated with the construction of the proposed monitoring well would expose a minimal amount of soil that could potentially be subject to water and/or wind erosion impacts. There would also be the potential that construction equipment could track sediment from the well site and transport to other locations that could drain into local and/or drainage facilities. To minimize the potential for sediment transport, mandatory BMPs would be implemented during the construction of the Project which would ensure that the Project would have a less than significant impact on receiving water bodies.

D. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on-or-off site?

Less Than Significant: The proposed Project would primarily occur within existing paved roadways that contain storm drain facilities. No additional impervious surfaces would be constructed and no increase in existing rates of surface water runoff would occur. No potential increases in onsite or offsite flooding impacts would occur and impacts associated with on- or off-site flooding would be less than significant.

E. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

Less Than Significant: The proposed Project would primarily occur within existing paved roadways that contain storm drain facilities. No additional impervious surfaces would be constructed and no increase in existing rates of surface water runoff would occur. Accordingly,

the construction and development of the proposed Project would not create or contribute runoff with volumes or pollution concentrations that would exceed the existing condition at the Project site. Therefore, impacts associated with the capacity of existing or planned storm water drainage systems or polluted runoff would be less than significant.

F. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would impede or redirect flood flows?

Less Than Significant: The proposed Project would primarily occur within existing paved roadways that contain storm drain facilities. The decommissioning activities would be conducted wholly outside of the flood control channels associated with the Santa Ana River and Talbert Channel and would not affect the stormwater conveyance functions of either facility. No additional impervious surfaces would be constructed and no increase in existing rates of surface water runoff would occur. Accordingly, the construction and development of the proposed Project would not create or contribute runoff with volumes that would impede or redirect flood flows. Therefore, impacts associated with the capacity of existing or planned storm water drainage systems or polluted runoff would be less than significant.

G. Would the project, if located in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

Less Than Significant: Coastal portions of the City of Huntington Beach are exposed to the potential risk of tsunami. However, the proposed decommissioning of the existing extraction wells and related pipelines and the construction of a new monitoring well would result in the construction of any habitable structures and would not include the use of or storage of any pollutants that could be released in such an event. Accordingly, impacts associated with this issue would be less than significant.

H. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

Less Than Significant: The construction of the Project would be conducted in accordance with all applicable local, State, and federal regulations that relate to water quality, ensuring that construction impacts to water quality and the groundwater management plan would be less than significant. The purpose of the proposed Project is to install a passive groundwater monitoring well in furtherance of the objectives of the OCWD Groundwater Management Plan. Accordingly, impacts associated with the implementation of a water quality control plan or a sustainable groundwater management plan would be less than significant.

4.11 Land Use and Planning

A. Would the project physically divide an established community?

No Impact: The proposed Project would occur within a portion of a paved parking lot associated with a recycling center within a college campus. Upon completion of the Project, the monitoring well site would continue to be utilized for parking and would not affect the existing use of the site. Therefore, the Project would not occur within an established community or affect any nearby communities and no impacts would occur.

B. Would the project cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purposes of avoiding or mitigating an environmental effect?

Less Than Significant: The Project would occur within a paved parking lot and would not require the approval of a zone change or a modification of the General Plan land use designation for the Project site. All construction at the Project site would be conducted in accordance with adopted plans, policies and regulations that are intended to avoid or mitigate an environmental effect. The analysis identified throughout this document indicates that, with mitigation, the Project would not result in any significant environmental impacts. Accordingly, impacts associated with land use plans, policies and/or regulations would be less than significant.

4.12 Mineral Resources

A. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

No Impact: According to the City of Huntington Beach General Plan, the land where the proposed monitoring well would be constructed are not known to contain mineral deposits that are of value to the region and/or residents of the State. The decommissioning activities would have no affect on any mineral resources. Accordingly, no impacts would occur.

A. Would the project result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

No Impact: According to the City of Huntington Beach General Plan, the land where the proposed monitoring well would be constructed are not known to contain locally or regionally important mineral deposits. The decommissioning activities would have no affect on any mineral resources. Accordingly, no impacts would occur.

4.13 Noise

The analysis provided in this section is based on a Noise Impact Analysis technical report prepared by Vista Environmental in May 2019. The technical report is included in Appendix C of this MND.

Background

A decibel (dB) is a unit of measurement that indicates the relative intensity of a sound. The zero point on the dB scale is based on the lowest sound level that a healthy, unimpaired human ear can detect. Changes of 3 dB or fewer are only perceptible in laboratory environments. An increase of 10 dB represents a 10-fold increase in acoustic energy, while 20 dB is 100 times more intense, and 30 dB is 1,000 times more intense. Each 10 dB increase in sound level is perceived as approximately a doubling of loudness.

Regulatory Setting

Federal Regulations

The Occupational Safety and Health Administration (OSHA) agency limits noise exposure of workers to 90 dB Leq or less over 8 continuous hours, or 105 dB Leq or less over 1 continuous hour.

State Office of Noise Control Standards

The California Office of Noise Control has set long term land use compatibility noise standards for different types of land uses and has encouraged local jurisdictions to adopt them. The Proposed Project would not result in long term noise impacts. Therefore, the State Office of Noise Control long term noise standards would not be applicable.

Local Regulations

The following lists the City of Huntington Beach Municipal Code regulations that are applicable to all development projects in the City.

Section 8.40.050 Exterior Noise Standards

Section 8.40.050 of the City's Municipal Code limits exterior noise impacts to all residential properties to55 dBA from 7:00 a.m. to 10:00 p.m. and 50 dBA from 10:00 p.m. to 7:00 a.m.

Section 8.40.090(d) Construction Noise Standards

Section 8.40.090(d) of the City's Municipal Code exempts construction activities from the City's exterior noise standards provided that construction activities occur between 7:00 a.m. and 8:00 p.m. on weekdays and Saturdays.

Project Impacts

A. Would the project result in the generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

Less Than Significant: This impact discussion analyzes the potential for Project construction noise and operational noise to cause an exposure of persons to or generation of noise levels in excess of City of Huntington Beach noise standards. The noise levels in the study area would be influenced by decommissioning activities, well construction activities, and from on-going well maintenance activities.

Section 8.40.090(d) of the City of Huntington Beach Municipal Code exempts construction noise from the City noise standards that occurs between the hours of 7:00 a.m. and 8:00 p.m., on any day except Sunday or a federal holiday. However, the City construction noise standards do not provide any limits to the noise levels that may be created from construction activities and even with adherence to the City standards, the resultant construction noise levels may result in a significant substantial temporary noise increase to the nearby residents.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the OSHA agency limits for noise exposure to workers have been utilized. The use of a significance threshold using an OSHA standard is considered conservative.

The OSHA standard limits noise exposure of workers to 90 dB or less over eight continuous hours and this standard has been utilized to analyze the construction noise impacts to the nearby sensitive receptors.

Construction Impacts

The Project's construction activities would be segmented into four phases, which have been analyzed separately below:

Phases 1 and 2 Decommissioning of the Extraction Wells

Phase 1 of the proposed project involves destroying the extraction wells via perforating the blank well casings and sealing the wells with cement grout. Phase 2 involves filling and removal of the below-ground concrete well vaults. Well destruction work would take approximately one week per well for well sealing and approximately one week per well of vault demolition and concrete and asphalt repair. The calculated Phase 1 and Phase 2 construction noise level results are shown below in Table 13, *Phases 1 & 2 Well Decommissioning Noise Levels at the Nearest Sensitive Receptors*.

Table 14 Phases 1 & 2 Well Decommissioning Noise Levels at the Nearest Sensitive Receptors

Extraction Well	Distance to Nearest Receptor[1] (feet)	Existing Wall Height[2] (feet)	Construction Noise Levels at Nearest Receptor	
			Phase 1 (dBA Leq)	Phase 2 (dBA Leq)
OCWD-P1	15	7	86	83
OCWD-P2	65	7	73	70
OCWD-P3	60	7	74	71
OCWD-P4	110	0	75	72
OCWD-P6	30	0	87	84
OCWD-P7	20	7	84	81
OCWD-P10	270	6	62	59
Construction Noise Threshold (OSHA)			**90**	**90**
Exceed Thresholds?			**No**	**No**

[1] Distance from Extraction Well to nearest residential or commercial structure.
[2] According to the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans, 2013), a sound wall provides approximately 0.9 dB of attenuation for each foot of wall height (i.e., a 7-foot high wall will provide 6.3 dB of attenuation), which was utilized to enter the estimated shielding.
Source: Vista Environmental, 2019

Table 13 shows that the greatest noise impacts during Phases 1 and 2 would occur at the nearest homes to Extraction Well OCWD-P6, with a noise level as high as 87 dBA Leq, which is within the OSHA noise standard of 90 dB to protect workers from health impacts created from high noise levels. Therefore, through adherence to the limitation of allowable construction times provided in Section 8.40.090 of the Municipal Code, construction-related noise levels would not exceed any standards established in the General Plan or Noise Ordinance nor would construction activities

create a substantial temporary increase in ambient noise levels from Phase 1 and Phase 2 construction activities for the proposed project.

Phase 3 Abandonment of Water Supply Pipelines

Phase 3 of the proposed project involves abandonment of the water supply pipeline. The proposed pipeline abandonment would occur in three steps; 1) excavate and cap the pipeline at ten locations, 2) fill 24-inch pipeline with sand-cement slurry, and 3) repair the asphalt at pipeline cap locations. The estimated schedule includes 13 days for pipeline abandonment. The calculated Phase 3 construction noise level results are shown below in Table 14, *Phase 3 Pipeline Abandonment Noise Levels at the Nearest Sensitive Receptors*.

Table 15 Phase 3 Pipeline Abandonment Noise Levels at the Nearest Sensitive Receptors

Pipeline Abandonment Location	Distance to Nearest Receptor[1] (feet)	Existing Wall Height[2] (feet)	Phase 3 Construction Noise Levels at Nearest Receptor (dBA Leq)
Adams Avenue	20	7	83
Atlanta Avenue	20	7	83
Bushard Street	40	7	77
	Construction Noise Threshold (OSHA)		**90**
		Exceed Thresholds?	**No**

[1] Distance from water line manholes to nearest residential or commercial structure.
[2] According to the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans, 2013), a sound wall provides approximately 0.9 dB of attenuation for each foot of wall height (i.e., a 7-foot high wall will provide 6.3 dB of attenuation), which was utilized to enter the estimated shielding.
Source: Vista Environmental, 2019

Table 14 shows that the greatest noise impacts during Phase 3 abandonment of the water supply pipelines would occur at the nearest homes to the pipelines located in Adams Avenue and Atlanta Avenue, with a noise level as high as 83 dBA Leq, which is within the OSHA noise standard of 90 dB to protect workers from health impacts created from high noise levels. Therefore, through adherence to the limitation of allowable construction times provided in Section 8.40.090 of the Municipal Code, construction-related noise levels would not exceed any standards established in the General Plan or Noise Ordinance nor would construction activities create a substantial temporary increase in ambient noise levels from Phase 3 pipeline abandonment activities.

Phase 4 Monitoring Well OCWD-M57 Construction

Phase 4 involves construction of Monitoring Well OCWD-M57. The proposed monitoring well construction would occur in three steps; 1) mobilization, borehole drilling, and well construction, 2) well development, and 3) demobilization, site clean-up, and vault installation. Step 3 involves minimal equipment and would be done by hand. The estimated schedule includes 5 days for the monitoring well construction. The calculated Phase 4 construction noise level results are shown below in Table 15, *Phase 4 Monitoring Well Construction Noise Levels at the Nearby Homes*.

Table 16 Phase 4 Monitoring Well Construction Noise Levels at the Nearby Homes

Receptor	Distance to Nearest Receptor[1] (feet)	Existing Wall Height[2] (feet)	Phase 4 Construction Noise Levels at Receptor (dBA Leq)
Nearest Home to West	20	8	87
Nearest Home to East	65	0	84
		Construction Noise Threshold (OSHA)	**90**
		Exceed Thresholds?	**No**

[1] Distance from proposed monitoring well OCWD-M57 location to residential structure.
[2] According to the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans, 2013), a sound wall provides approximately 0.9 dB of attenuation for each foot of wall height (i.e., an 8-foot high wall will provide 7.2 dB of attenuation), which was utilized to enter the estimated shielding into the RCNM model.
Source: Vista Environmental, 2019

Table 15 shows that the greatest noise impacts during Phase 4 construction of Monitoring Well OCWD-M57 would occur at the nearest home located to the west of the proposed monitoring well location, with a noise level as high as 87 dBA Leq, which is within the OSHA noise standard of 90 dB to protect workers from health impacts created from high noise levels. Therefore, through adherence to the limitation of allowable construction times provided in Section 8.40.090 of the Municipal Code, construction-related noise levels would not exceed any standards established in the General Plan or Noise Ordinance nor would construction activities create a substantial temporary increase in ambient noise levels from Phase 4 Monitor Well OCWD-M57 well construction activities.

Accordingly, impacts associated with the decommissioning activities and the construction of the monitoring well would be less than significant.

Monitoring Well OCWD-M57 Operational Noise Impacts

The operation of the proposed monitoring well would be passive as there would be no permanent equipment installed in the well. OCWD staff would collect groundwater samples and record water levels on a quarterly basis or less using hand-held equipment. In total, the monitoring well would be visited by OCWD staff up to eight times a year. Every three to five years, OCWD would conduct maintenance activities to redevelop the well. A typical monitoring well redevelopment process would be completed in one day. All sampling and redevelopment activities would occur during daytime hours. The noise impacts created from the monitoring well sampling and redevelopment activities have been calculated and the noise level results are shown below in Table 16, *Monitoring Well Operational Noise Levels at the Nearby Homes*.

Table 17 Monitoring Well Operational Noise Levels at the Nearby Homes

Receptor	Distance to Nearest Receptor[1] (feet)	Existing Wall Height[2] (feet)	Noise Levels at Nearby Home (dBA Leq)	
			Sampling	Well Redevelopment
Nearest Home to West	20	8	71	81
Nearest Home to East	65	0	68	78
Construction Noise Threshold (OSHA)			**90**	**90**
Exceed Thresholds?			**No**	**No**

[1] Distance from proposed monitoring well OCWD-M57 location to residential structure.
[2] According to the *Technical Noise Supplement to the Traffic Noise Analysis Protocol* (Caltrans, 2013), a sound wall provides approximately 0.9 dB of attenuation for each foot of wall height (i.e., an 8-foot high wall will provide 7.2 dB of attenuation), which was utilized to enter the estimated shielding into the RCNM model.
Source: Vista Environmental, Inc.

Table 16 shows that the greatest operational noise impact would occur at the nearest home to the west during monitor well redevelopment activities with a noise level as high as 81 dBA Leq, which is within the OSHA noise standard of 90 dB to protect workers from health impacts created from high noise levels. Therefore, through adherence to the limitation of allowable construction times provided in Section 8.40.090 of the Municipal Code, operation-related noise levels would not exceed any standards established in the General Plan or Noise Ordinance nor would operational activities create a substantial temporary increase in ambient noise levels from Monitor Well OCWD-M57 well sampling and well redevelopment activities. Table 16 demonstrates that none of the receivers would exceed the FTA's daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in Section 13-280(a) of the City's Municipal Code, noise impacts from the operational monitoring well sampling activities would be less than significant.

B. Would the project result in the generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant: Vibration impacts from construction and operational activities associated with the proposed Project would be a function of the vibration generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The construction activities for the proposed Project involves the destruction and permanent decommissioning of seven (7) extraction wells including demolition of the associated structures and pipeline and construction of one (1) new monitoring well. In addition, operational activities associated with well redevelopment would also utilize construction equipment.

Since neither the City's Municipal Code nor the General Plan provide a quantifiable vibration threshold, Caltrans guidance that is detailed above in Section 4.2 has been utilized, which defines the threshold of perception from transient sources at 0.25 inch per secod PPV.

Of the equipment that would be used during the Project's construction, the caisson drill, which is similar to a drill rig, is the only piece of equipment that would be utilized during either construction or operation of the proposed Project that is a known source of vibration. The caisson drill would be utilized during Phase 4, monitor well construction activities and would create a vibration level of 0.089 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest home to the monitoring well construction activities (20 feet away) would be 0.11 inch per second PPV. The vibration level at the nearest offsite receptor would be well below the 0.25 inch per second PPV threshold detailed above. Therefore, a less than significant vibration impact would occur.

C. For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

Less Than Significant: The nearest airport to the proposed Project site is John Wayne Airport, which is located as near as 4.3 miles east of the Project site. The proposed Project consists of the decommissioning of obsolete extraction well facilities and the development and operation of a monitoring well, which would typically be a passive operation that would not require anyone onsite and would not introduce new sensitive receptors to the Project site. Accordingly, impacts associated with aircraft noise would be less than significant.

4.14 Population and Housing

A. Would the project induce substantial unplanned population growth in an area, either directly by proposing new homes and indirectly through extension of roads or other infrastructure?

No Impact: The proposed Project does not include any new homes and would not extend new infrastructure into any undeveloped area and would not provide new underground water supplies to any undeveloped areas. Implementation of the proposed Project would not induce any substantial population growth into the study area. No impact would occur.

B. Would the project displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?

No Impact: The implementation of the proposed Project would not displace any existing housing and therefore would not require the construction of any replacement housing. No impact would occur.

4.15 Public Services

A. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?

No Impact: Fire Protection. The proposed Project would be operated and maintained by OCWD and would not increase the demand for fire protection services over the current level of demand

that occurs within the City of Huntington Beach and would not require the construction of any new governmental facilities. No impact would occur.

No Impact: Police Protection. The proposed Project would be operated and maintained by OCWD and would not increase the demand for police protection services over the current level of demand that occurs within the City of Huntington Beach and would not require the construction of any new governmental facilities. No impact would occur.

No Impact: Schools. The proposed Project would be operated and maintained by OCWD and would not generate any students. Furthermore, the operation of the Project would not affect the use of any other nearby schools. No impact would occur.

No Impact: Parks. The Project would not increase the demand for parks over the current level of demand that occurs within the City of Huntington Beach and would not require the construction of any new governmental facilities. No impact would occur.

No Impact: Other Public Facilities. The Project would not increase the demand for libraries, hospitals, or any other public facilities over the current level of demand that occurs within the City of Huntington Beach. No impact would occur.

4.16 Recreation

A. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

No Impact: The implementation proposed Project would not involve any activities that would increase the use of existing neighborhood parks or recreation facilities. No impact would occur.

B. Would the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?

No Impact: The proposed Project does not propose new recreation facilities or result in the need for new or expanded recreation facilities. No impact would occur.

4.17 Transportation/Traffic

A. Would the project conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?

Less Than Significant: The proposed Project would occur within a number of paved public roadways in the City of Huntington Beach, including Adams Avenue and Bushard Street. The extraction well and pipeline decommissioning activities as well as the construction of the monitoring well would require temporary lane closures along these roadways, which would affect vehicular, pedestrian, and bicycle traffic. However, the lane closures would be temporary in nature and limited to the duration of the decommissioning and/or construction activities. Following the completion of the work, the roadways would be restored and continue to function as in the existing condition. Moreover, all lane closures along public roadways would be required to comply with mandatory City of Huntington Beach requirements, which include the implementation of a traffic control plan. The traffic control plan would specify measures, such as the use of signage, placement of cones, and/or the employment of flagmen (if necessary) to minimize the potential

for any conflict with ordinances or policies that affect the City's circulation system. Therefore, because of the temporary nature of the roadway disruptions and through the mandatory compliance with all applicable City of Huntington Beach lane closure requirements, impacts associated with programs, plans, ordinances, or policies addressing the circulation system would be less than significant.

B. Would the project conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)?

Less Than Significant: Due to the nature of the proposed Project, which would generate nominal temporary volumes of vehicular trips during construction and only occasional single vehicle trips during operation, the OCWD as Lead Agency has determined that the use of a qualitative analysis of vehicle miles traveled (VMT) in accordance with CEQA Guidelines Section 15064.3 (b) (3) is appropriate. During construction, it is anticipated that contractor vehicles, as well as deliveries and cutting removals would utilize routes that begin and end within Orange County, with one-way trip lengths likely to be approximately 10 miles or less. In some instances, deliveries may require longer trip lengths. However, because of the limited scale of the Project, the proposed Project's traffic volumes would minor in comparison to regional traffic generation. The Project would occur in an area that is supported by high-quality transit corridors, including Adams Avenue, Beach Boulevard, Magnolia Avenue, Bushard Street, and Brookhurst Street. The limited scale of the Project and the nature of the construction operation activities would ensure that the construction of the Project would not result in the generation of an excessive or a substantial amount of VMT ensuring that the Project would have a less than significant impact in relation to CEQA Guidelines Section 15064.3 Subdivision (b).

C. Would the project substantially increase hazards due to a geometric design feature or incompatible uses?

Less Than Significant: The proposed Project would occur within a number of paved public roadways in the City of Huntington Beach, including Adams Avenue and Bushard Street. The extraction well and pipeline decommissioning activities as well as the construction of the monitoring well would require temporary lane closures along these roadways, which would affect vehicular, pedestrian, and bicycle traffic. However, the lane closures would be temporary in nature and limited to the duration of the decommissioning and/or construction activities. Following the completion of the work, the roadways would be restored and continue to function as in the existing condition. Moreover, all lane closures along public roadways would be required to comply with mandatory City of Huntington Beach requirements, which include the implementation of a traffic control plan. The traffic control plan would specify measures, such as the use of signage, placement of cones, and/or the employment of flagmen (if necessary) to minimize the potential for any roadway hazards to occur. Therefore, because of the temporary nature of the roadway disruptions and through the mandatory compliance with all applicable City of Huntington Beach lane closure requirements, impacts associated with roadway hazards would be less than significant.

D. Would the project Result in inadequate emergency access?

Less Than Significant: The Project would be located within public rights of way that would be accessible to emergency vehicles at all times. Although temporary lane closures would occur

during construction, the Project does not include any road closures that would prohibit emergency vehicles from accessing the Project sites nor would it preclude emergency vehicles from traversing the roadways that are affected by construction as other through lanes would be maintained in accordance with the mandatory City of Huntington Beach traffic control plan requirements. Therefore, impacts associated with emergency access would be less than significant.

4.18 Tribal Cultural Resources

A. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1 (K)??

Less Than Significant: On February 7, 2019, OCWD contacted three local tribes that have requested to be informed of projects under AB 52: The tribes would include Joyce Perry from Juaneno Band of Mission Indians Acjachemen, Andrew Salas from Gabrieleno Band of Mission Indians-Kizh Nation and Anthony Morales from the San Gabriel Band of Mission Indians. The tribes were requested to provide additional information in regard to Native American Tribal Cultural Resources within the project area and the potential for them to be encountered during the project construction activities. No tribes provided a response to the notification and no further consultation efforts were conducted. Accordingly, no tribal cultural resources were identified within the areas subject to the proposed Project and impacts associated with tribal cultural resources would be less than significant.

B. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape, sacred place or object with cultural value to a California native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?

Less Than Significant: As described above, the tribal representatives that were contacted did not provide a response indicating that any tribal cultural resources occur within the areas affected by the proposed Project. Accordingly, impacts associated with tribal cultural resources would be less than significant.

4.19 Utilities/Service Systems

A. Would the project induce require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?

Less Than Significant: The Project would not affect any existing utility facilities or otherwise require the relocation or construction of utilities beyond the decommissioning of the extraction

wells and pipelines and the construction of the proposed monitoring well. Accordingly, impacts would be less than significant.

B. Would the project have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?

Less Than Significant: The purpose of the proposed Project is to decommission obsolete extraction well facilities and to evaluate the extent and nature of seawater intrusion into the Orange County Groundwater Basin. The operation of the proposed Project would not generate a demand for water supplies or service. Therefore, impacts would be less than significant.

C. Would the project result in a determination by the wastewater treatment provider which services or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?

No Impact: The proposed Project would not construct wastewater treatment facilities or include any components that would generate wastewater. Therefore, the implementation of the proposed Project would not have any impact on the capacity of wastewater treatment providers to the area.

D. Would the project generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?

Less Than Significant: The operation of the proposed Project would not require ongoing solid waste disposal service. Construction operations for the Project would generate minimal amounts of solid waste. The solid waste would be disposed of in the Brea Olinda Landfill which accepts up to 8,000 tons per day and has adequate capacity to accept the solid waste that would be produced during construction. The amount of solid waste generate from proposed project would have a less than significant impact on the capacity of the Brea Olinda Landfill. No mitigation measures required.

E. Would the project comply with federal, state, and local management and reduction statutes and regulations related to solid waste?

Less Than Significant: The proposed Project would not involve any activities that would be in conflict with federal, state and local statutes and regulations related to solid waste. All waste generated from the construction and operation of the proposed Project would be disposed of in accordance with local, state and federal laws. Therefore, impacts associated with solid waste would be less than significant.

4.1 Wildfire

If located in or near State responsibility areas or lands classified as very high fire severity zones, would the project:

A. Would the project substantially impair an adopted emergency response plan or emergency evacuation plan?

Less Than Significant: The Project would be primarily located within a paved roadways within the City of Huntington Beach. During the decommissioning and construction activities within the roadways, the Project would be required to implement mandatory traffic control plan requirements pursuant to the City of Huntington Beach standard conditions of approval for the required encroachment permits. The implementation of the traffic control plan would ensure that traffic

flow within the roadways would be maintained for vehicular use, including the potential use for emergency response or evacuation, to the maximum extent feasible. Moreover, the decommissioning and monitoring well construction activities would be temporary in nature and the roadway surfaces would be restored to their existing condition upon the completion of the Project, which would accommodate emergency response and evacuation routing during Project operation. Accordingly, impacts associated with emergency response plans or evacuation plans would be less than significant.

B. Would the project, due to slope, prevailing winds, and other factors, exacerbate wildfire risks and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?

No Impact: The proposed Project is not located within an area designated as having a high risk of wildland fire by the City of Huntington Beach General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach that are topographically flat. No wildlands are located within the Project vicinity and the below-grade Project would have no potential to generate or exacerbate any risks associated with wildfires.

C. Would the project require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, or emergency water sources that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?

No Impact: The proposed Project is not located within an area designated as having a high risk of wildland fire by the City of Huntington Beach General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach that are topographically flat. No wildlands are located within the Project vicinity and the below-grade Project would have no potential to generate or exacerbate any risks associated with wildfires.

D. Would the project expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope stability, or drainage changes?

Less Than Significant: The proposed Project is not located within an area designated as having a high risk of wildland fire by the City of Huntington Beach General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach that are topographically flat. No wildlands are located within the Project vicinity and the below-grade Project would have no potential to generate or exacerbate any risks associated with wildfires.

4.2 Mandatory Findings of Significance

A. Would the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history?

Less Than Significant with Mitigation Incorporated: Implementation of the proposed Project would not result in direct impacts to sensitive plants, wildlife or habitat. The proposed Project would not result in any impacts to any known cultural or paleontological resources and the potential to encounter unknown cultural or paleontological resources would be very low. Mitigation

Measures have been incorporated into the proposed Project to avoid significant impacts to unknown cultural and paleontological resources that might be present.

B. Would the project have impacts that are individually limited, but cumulatively considerable?

Less Than Significant with Mitigation Incorporated: The proposed Project would comply with local and regional planning programs, applicable codes and ordinances, State and federal laws and regulations and project-specific mitigation measures. Compliance with these programs would reduce the proposed Project's incremental contributions to cumulative impacts to a less than significant level.

C. Would the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant with Mitigation Incorporated: The proposed Project would comply with local and regional planning programs, applicable codes, and ordinances, State and Federal laws and regulations and project-specific mitigation measures to ensure that long term operation activities and short-term construction activities associated with the proposed project would not result in direct, or indirect adverse impacts to human beings.

SECTION 5.0 SUMMARY MITIGATION MEASURES

MM CR-1: During all ground disturbing activities, the OCWD Project Manager and/or their designee (including the Construction Supervisor) shall ensure that, in the event that any evidence of cultural resources are discovered, all work within the vicinity of the find shall immediately halt until a Qualified Cultural Resources Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Cultural Resources Consultant has concluded their assessment. The Qualified Cultural Resources Consultant shall prepare a letter report that documents the find and identifies recommendations for the treatment and/or deposition of the materials.

MM PALEO-1: During all ground disturbing activities, the OCWD Project Manager and/or their designee (including the Construction Supervisor) shall ensure that, in the event that any evidence of cultural or paleontological resources are discovered, all work within the vicinity of the find shall immediately halt until the District's Qualified Paleontological Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Paleontological Consultant has concluded their assessment. The Qualified Paleontological Consultant shall prepare a letter report that documents the find and identifies recommendations for the treatment and/or deposition of the materials.

SECTION 6.0 REFERENCES

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