

Orange County Water District Monitoring Well SA-5 Replacement Project

Draft Initial Study/Mitigated Negative Declaration



Prepared By

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Table of Contents

Section	Page
SECTION 1.0 INTRODUCTION.....	1-1
1.1 PURPOSE OF ENVIRONMENTAL REVIEW	1-1
1.2 STATUTORY AUTHORITY AND REQUIREMENTS	1-1
1.3 TECHNICAL INFORMATION AND STUDIES	1-1
SECTION 2.0 PROJECT DESCRIPTION.....	2-2
2.1 BACKGROUND	2-2
2.2 PROJECT LOCATION.....	2-2
2.3 PROPOSED PROJECT	2-2
2.3.1 MONITORING WELL SA-5 DECOMMISSIONING.....	2-2
2.3.2 PROPOSED MONITORING WELL OCWD-M58	2-3
2.4 DEMOLITION AND CONSTRUCTION ACTIVITIES.....	2-3
2.4 PROJECT SCHEDULE AND EQUIPMENT OVERLAP	2-8
2.6 PERMITS AND APPROVALS	2-8
SECTION 3.0 ENVIRONMENTAL CHECKLIST EVALUATIONS.....	13
SECTION 4.0 ENVIRONMENTAL ANALYSIS.....	25
4.1 AESTHETICS	25
4.2 AGRICULTURAL RESOURCES/FOREST RESOURCES	26
4.3 AIR QUALITY	27
4.4 BIOLOGICAL RESOURCES	32
4.5 CULTURAL RESOURCES	33
4.6 ENERGY.....	35
4.7 GEOLOGY/SOILS	36
4.8 GREENHOUSE GAS EMISSIONS.....	39
4.9 HAZARDS/HAZARDOUS MATERIALS	42
4.10 HYDROLOGY/WATER QUALITY.....	44
4.11 LAND USE AND PLANNING	52
4.12 MINERAL RESOURCES	53
4.13 NOISE	53
4.14 POPULATION AND HOUSING.....	57
4.15 PUBLIC SERVICES.....	58
4.16 RECREATION	58

Table of Contents

4.17	TRANSPORTATION/TRAFFIC.....	59
4.18	TRIBAL CULTURAL RESOURCES.....	60
4.19	UTILITIES/SERVICE SYSTEMS	61
4.1	WILDFIRE	62
4.2	MANDATORY FINDINGS OF SIGNIFICANCE	63
SECTION 5.0	SUMMARY MITIGATION MEASURES	64
SECTION 6.0	REFERENCES	65

Tables		Page
TABLE 1	MONITORING WELL DECOMMISSIONING EQUIPMENT MIX.....	2-4
TABLE 2	PHASE 1 NOISE PANEL/PROTECTIVE FENCING/UTILITY CLEARANCE EQUIPMENT MIX	2-5
TABLE 3	WELL DRILLING/CONSTRUCTION EQUIPMENT MIX.....	2-6
TABLE 4	WELL DEVELOPMENT EQUIPMENT MIX	2-6
TABLE 5	SUBGRADE PROTECTIVE WELL VAULT INSTALLATION EQUIPMENT MIX	2-7
TABLE 6	MONITORING WELL SAMPLING AND REDEVELOPMENT EQUIPMENT MIX	2-8
TABLE 7	CONSTRUCTION EMISSIONS	30
TABLE 8	OPERATIONAL POLLUTANT EMISSIONS	31
TABLE 9	PROJECT-RELATED GREENHOUSE HOUSE GAS EMISSIONS.....	41
TABLE 10	BENEFICIAL USE DESCRIPTIONS	47
TABLE 11	STUDY AREA WATER BODY/DRAINAGE FACILITIES BENEFICIAL USES.....	49
TABLE 12	WATER QUALITY OBJECTIVES (MGL)	49
TABLE 13	CONSTRUCTION NOISE LEVELS AT THE NEAREST HOME TO EACH CONSTRUCTION PHASE	56

Table of Contents

Figures	Page
FIGURE 1 REGIONAL LOCATION MAP.....	2-9
FIGURE 2 LOCAL VICINITY MAP.....	2-10
FIGURE 3 MONITORING WELL SA-5 SITE PLAN.....	2-11
FIGURE 4 OCWD-M58 SITE PLAN.....	2-12

Appendices

- A. Air Quality, Energy, and Greenhouse Gas Emissions Impact Analysis, Vista Environmental, September 2019
- B. Cultural Resources Records Search, August 2019
- C. Noise Impact Analysis, September 2019
- D. Tribal Consultation

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 Monitoring Well SA-5 Replacement 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, September 2019
- Cultural Resources Records Search, VCS Environmental, August 2019
- Noise Impact Analysis, Vista Environmental, September 2019

SECTION 2.0 PROJECT DESCRIPTION

2.1 Background

OCWD owns and operates a network of injection and monitoring wells and existing pipeline that conveys water from the Groundwater Replenishment System (GWRS) facility in the City of Fountain Valley to a seawater barrier system within the “Talbert Gap”, one of four geologic openings along the Orange County coast that could potentially allow seawater to flow inland in response to freshwater aquifer pumping by coastal cities. The OCWD operates several groundwater monitoring wells within the Talbert Gap that provide data regarding groundwater levels and the chemical composition of the groundwater.

Groundwater monitoring well SA-5, located in the City of Huntington Beach, is part of the groundwater monitoring well network monitored by OCWD. The well was originally constructed by the California Department of Water Resources (DWR) in 1963. However, DWR abandoned use of the well soon after its construction and OCWD has monitored the well since it was installed in 1963. The replacement of SA-5 is necessary due to the deterioration of the monitoring well facility resulting in sediment accumulation within the well. The proposed Project would permanently decommission the existing SA-5 monitoring well and construct a new monitoring well within a nearby portion of the City of Fountain Valley.

2.2 Project Location

Figure 1, *Regional Location Map*, and Figure 2, *Local Vicinity Map*, depict the locations of the two Project components from a regional and local vicinity perspective. The Project would occur within portions of the City of Fountain Valley and City of Huntington Beach in Orange County, California. As shown in Figure 2, Project Area, the proposed Project would be implemented within two separate sites within the northeastern portion of the City of Huntington Beach and the southwestern portion of the City of Fountain Valley.

Specifically, the decommissioning of the existing monitoring well SA-5 would occur within the Brookhurst Street in right-of-way the City of Huntington Beach approximately 300 feet south of the intersection of Brookhurst Street and Yorktown Avenue. The replacement monitoring well would be constructed within the Oriole Avenue right-of-way in the City of Fountain Valley approximately 130 feet east of the intersection of Oriole Avenue and Acacia Street. The Project site can be regionally accessed by the I-405 Freeway via the Brookhurst Street and Magnolia Avenue exits.

2.3 Proposed Project

2.3.1 Monitoring Well SA-5 Decommissioning

As shown on Figure 3, *Monitoring Well SA-5 Site Plan*, the existing SA-5 monitoring well is located within the sidewalk along the west (southbound) side of Brookhurst Street. The decommissioning would require an approximately 12-foot wide by 40-foot long temporary work area that would extend into the first southbound lane along Brookhurst Street.

The decommissioning of the monitoring well would require the removal of sediment within the lower portions of the existing well through air-lifting methods. The monitoring well would then be

Monitoring Well SA-5 Replacement Project

filled with cement and would be capped to a depth of five feet below the ground surface. After sealing the well casing with cement, capping would be conducted by excavating to a depth of 5 feet, removing the upper 5 feet of well casing, and installing a 1-foot thick concrete cap over the top of the well. The excavation would be back-filled and the sidewalk would be restored to the existing condition.

The decommissioning of the monitoring well would be conducted over approximately 5 working days. Construction activities would be limited to weekdays only and no nighttime construction would be required. The decommissioning would require the temporary closure of one traffic lane along Brookhurst Street, although two-way traffic would be maintained at all times. OCWD's contractor would be required to prepare a traffic control plan for the management of vehicular, bicycle, and pedestrian traffic along Brookhurst Avenue and all applicable traffic control measures that would be specified in the traffic control plan would be implemented as a mandatory condition of approval as a component of the City of Huntington Beach's granting of an encroachment permit.

2.3.2 Proposed Monitoring Well OCWD-M58

The proposed Project involves the construction and operation of a multi-depth monitoring well OCWD-M58 located within the Oriole Avenue right-of-way in the City of Fountain Valley as depicted in Figure 4, *OCWD-M58 Site Plan*. The 3-casing nested monitoring well would be used to monitor seawater intrusion and groundwater flow within the Talbert Gap to a depth of 230 feet below the ground surface.

The construction of OCWD-M58 would occur within the northern portion of Oriole Avenue adjacent to residences located to the north and south of the roadway, which are the nearest sensitive receptors. The construction duration period would be approximately three weeks and would occur on weekdays only and would not include any nighttime construction. The construction would occur within an approximately 12-foot wide by 220-foot long construction area. Due to the proximity to residences immediately north of the construction area, temporary noise barriers would be erected along the northern portion of the construction area.

The construction of OCWD-M58 would occur within the roadway although a temporary lane closure is not anticipated and two-way traffic would be maintained at all times. OCWD's contractor would be required to prepare a traffic control plan for the management of vehicular, bicycle, and pedestrian traffic along Oriole Avenue and all applicable traffic control measures that would be specified in the traffic control plan would be implemented as a mandatory condition of approval as a component of the City of Fountain Valley's granting of an encroachment permit. Additionally, the Project would temporarily block access to secondary driveways (back yard access) for the two homes located adjacent to the northern portion of Oriole Avenue throughout the construction period.

2.4 Demolition and Construction Activities

Monitoring Well SA-5 Decommissioning

The decommissioning of the existing SA-5 monitoring well would occur in one phase over a 5-day period. Table 1, *Monitoring Well Decommissioning Equipment Mix*, provides the

anticipated construction equipment mix associated with the decommissioning of monitoring well SA-5

Table 1 Monitoring Well Decommissioning Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Fill Removal	Pump Rig	1	8	1	550
Fill Removal	Air Compressor	1	4	1	200
Pressure Grout Well Casings	Pump Rig	1	8	1	550
Pressure Grout Well Casings	Air Compressor	1	2	1	200
Cap Well	Vacuum Truck	1	6	1	425
Sidewalk Repair					
Sidewalk Repair	Backhoe	1	8	2	90
Sidewalk Repair	Cement Truck	1	4	1	350
Sidewalk Repair	Pick-up Truck	1	2	2	250

Proposed Monitoring Well OCWD-M58

The proposed construction activities associated with the construction of OCWD-M58 would occur in three construction phases. Phase 1 involves surveying the well site for possible underground utilities, installation of temporary noise panels, and installation of a six-foot high protective chain link fence around the perimeter of the well site and construction work area. Phase 2 involves drilling and well construction activities that would during daytime hours until the well casing and the annular materials are installed. Phase 3 involves well development. Activities under this phase would be Monday through Friday, daytime operations only. Phase 4 involves site clean-up and vault installation.

Phase 1: Noise Panel and Protective Fencing Installation / Utility Clearance

Phase 1 of the proposed Project involves installation of the noise panels, protective fencing, and utility clearance at the well site. The temporary noise panels would be 10

feet high and the protective fencing would be a 6-foot high chain link fence. The equipment mix for Phase 1 is shown in Table 2, *Phase 1 Noise Panel/Protective Fencing/Utility Clearance Equipment Mix*.

Table 2 Phase 1 Noise Panel/Protective Fencing/Utility Clearance Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Delivery fencing	Support Truck	1	4	1	550
Utility Clearance	Vacuum Truck	1	5	1	550
Install Fencing and Noise Panels	No Equipment	-	-	-	-
Construction Trips: 1 trip mobilizing, 1 trip demobilizing. All trips assume a total of 50 miles.					

Phase 2: Monitoring Well Drilling and Construction

Phase 2 of the proposed Project involves the drilling and construction of the monitoring well. The proposed monitoring well would be drilled by using the direct mud rotary drilling method. The monitoring well would include up to three 2-inch diameter PVC casings installed into a single 12-inch diameter borehole to an approximate depth of 230 feet below ground surface (bgs). Once the borehole drilling is completed, the well would then be constructed. The depth of the borehole and depth of each of the three well casings and associated screened intervals would be determined based on the lithology observed during drilling and the acquired borehole geophysical logs. The well would have a 3 foot by 4-foot concrete apron with a 2 foot by 3-foot traffic-rated subgrade protective vault. The equipment mix for Phase 2 is shown in Table 3, *Well Drilling/Construction Equipment Mix*.

Table 3 Well Drilling/Construction Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Drilling & Construction	Drilling Rig	1	8	7	550
Well Drilling & Construction	Mud Tank	1	8	7	75
Well Drilling & Construction	Fork Lift	1	3	7	75
Well Drilling & Construction	Support Truck	1	2	7	350
Well Drilling & Construction	Pick-up Truck	1	2	7	250
Construction Trips: 1 trip mobilizing, 1 trip demobilizing. All trips assume a total of 50 miles.					

Phase 3: Monitoring Well Development

Phase 3 of the Proposed Project involves the mechanical and pumping development for each of the three well casings. Table 4, *Well Development Equipment Mix*, identifies the equipment mix for Phase 3.

Table 4 Well Development Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Development	Pump Rig	1	8	5	325
Well Development	Air Compressor	1	8	5	200
Well Development	Electrical Generator	1	8	1	20
Well Development	Pick-up Truck	1	2	6	250

Phase 4: Site Cleanup and Traffic-Rated Vault Installation

Phase 4 of the Proposed Project involves site cleanup and installation of the below ground traffic-rated well vault. Table 5, *Subgrade Protective Well Vault Installation Equipment Mix*, identifies the equipment mix for Phase 4.

Table 5 Subgrade Protective Well Vault Installation Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Delivery of Pre-cast Concrete Vault	Truck	1	2	1	550
Receive and Install Pre-cast Concrete Vault	Fork Lift	1	8	1	75
Install Well Vault	Pick-up Truck	1	2	1	250

1.1 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. 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. 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 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	4	1	20
Redevelopment Equipment				
Pump Rig	1	8	1	325
Air Compressor	1	8	1	200
Pick-up Truck	1	2	1	300
Sampling & Redevelopment Trips: 1 round trip, all trips assume 10 miles.				

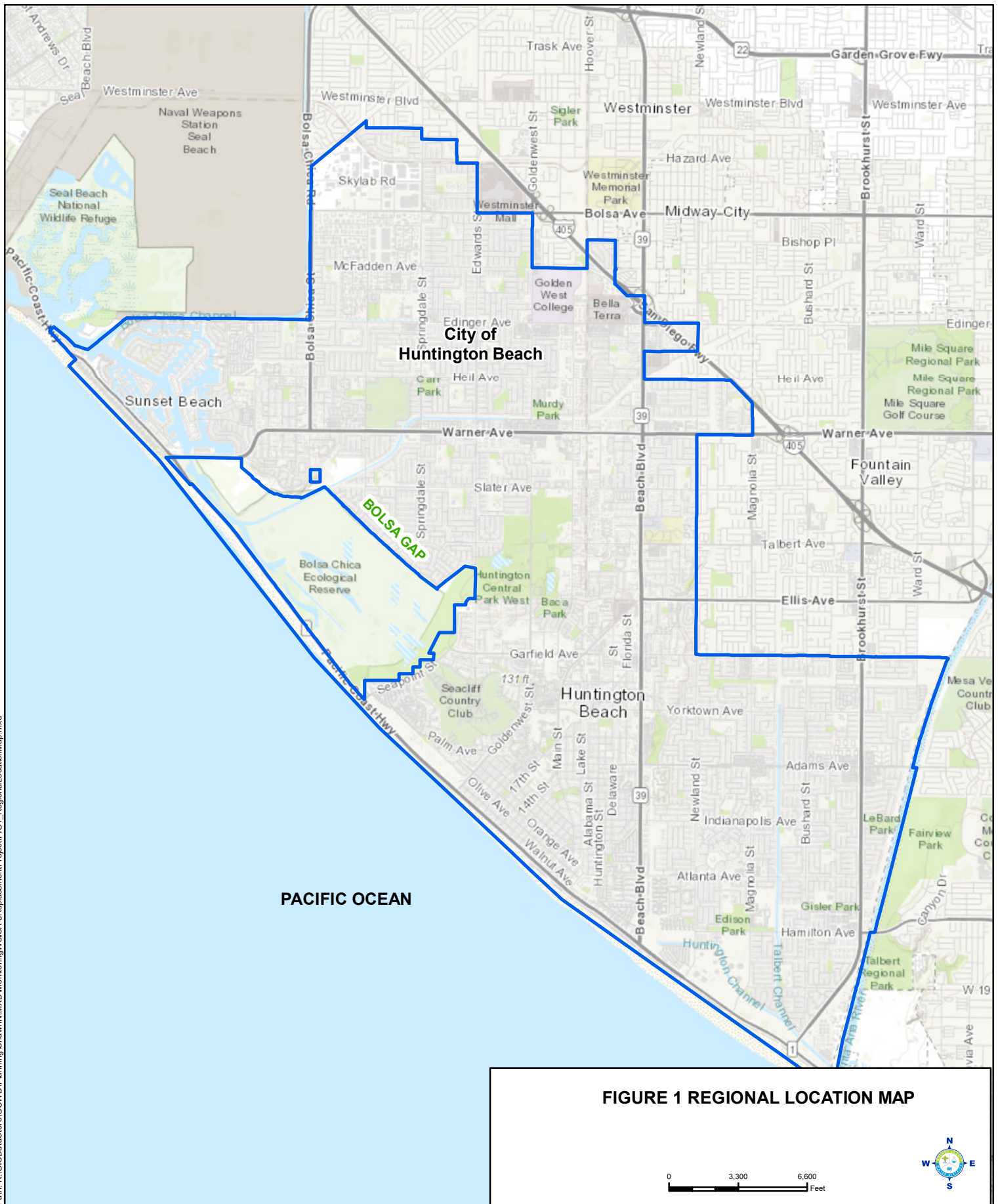
2.4 Project Schedule and Equipment Overlap


There would be no overlap of equipment for the various phases of this project. The estimated schedule includes approximately 5 days for well destruction and vault removal and 10 days for well construction. The total estimated Project duration is 15 days.

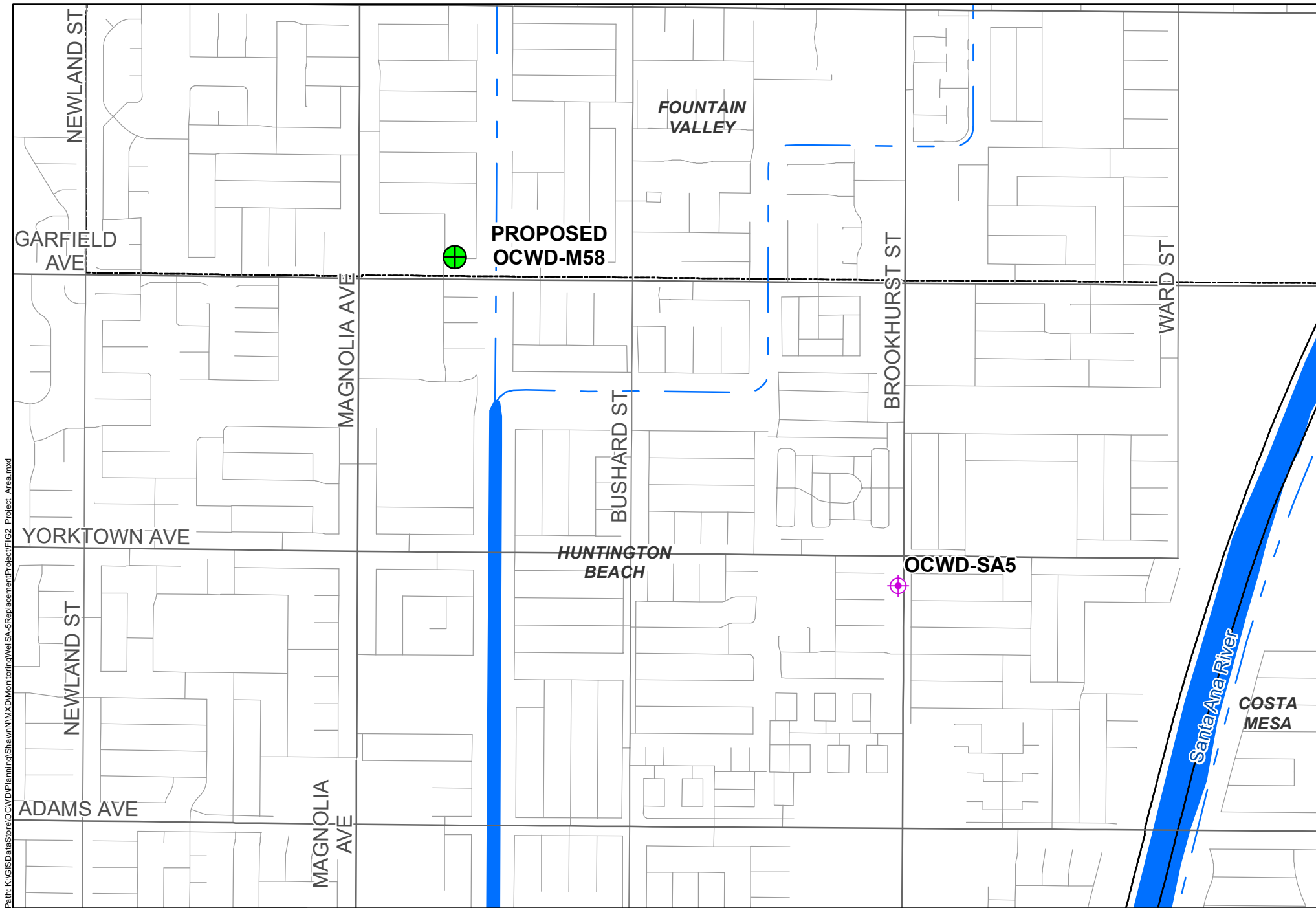
2.6 Permits and Approvals

The Initial Study/Mitigated Negative Declaration prepared for the Monitoring Well SA-5 Replacement 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 the well destruction activity within City right-of-way.
- City of Fountain Valley Encroachment Permit for monitoring well construction activities within City right-of-way.



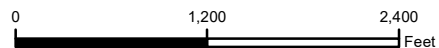
 City of Huntington Beach



Existing Monitoring Well To Be Destroyed

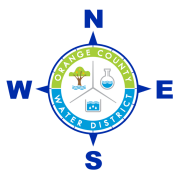


Proposed Replacement Monitoring Well



Proposed Monitoring Well Site
OCWD-M58

Figure 2



Existing Monitoring Well To Be Destroyed

OCWD-SA5

Proposed Work Site



Figure 3



Proposed Monitoring Well Location

OCWD-M58

Proposed Work Site

Figure 4



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:** Cities of Huntington Beach and Fountain Valley
5. Environmental Determination on the basis of this initial study evaluation, I find that

A	<input type="checkbox"/>	The proposed project COULD NOT have a significant effect on the environment and NEGATIVE DECLARATION will be prepared.
B	<input checked="" type="checkbox"/>	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	<input type="checkbox"/>	The proposed project MAY have a significant effect on the environment and an ENVIRONMENTAL IMPACT REPORT is required.
D	<input type="checkbox"/>	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	<input type="checkbox"/>	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	<input type="checkbox"/>	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.

Shawn Nevill
Signature/Title

11-12-19
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agriculture use, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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))?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
III - Air Quality: Would the project				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in other substantial emissions (such as those leading to odors) adversely affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

d) 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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
V - Cultural Resources: Would the project				
a) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?				
b) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Directly or indirectly cause potential substantial adverse effects involving landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
I) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
XI - Land Use and Planning: Would the project				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

residing or working in the project area to excessive noise levels?				
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Fire Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Police Protection	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Schools	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Parks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other Public facilities	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
c) Substantially increase hazards due to a geometric design feature or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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)?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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?	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
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.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b) Does the project have impacts that are individually limited, but cumulatively considerable?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 Project 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 two locations of the project components that would be subject to construction activities that would occur within existing roadways. 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 Brookhurst Street as a Minor Landscape Corridor, which are corridors “lack an identifiable sense of place [that] can be attributed primarily to the predominance of perimeter tract walls surrounding the adjoining residential neighborhoods and minimal landscaping.” The City of Fountain Valley does not identify any scenic vistas within the vicinity of the proposed monitoring well M-58. Both of the locations of the Project components are within areas that are surrounded by existing development that would block any potential scenic views.

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 at the site of well SA-5 and monitoring well construction activities at the site of monitoring well M-58. Upon completion of the proposed Project, the ground surface at both sites would be restored to the existing condition and no permanent visible improvements would remain 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 Coast Highway, which is located approximately 3.28 miles to the south of the SA-5 well site (which is the nearest Project component to Pacific Coast 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 and Fountain Valley. Each of the well sites are located within existing roadways and the road surfaces would be restored to the existing condition following the completion of construction. 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 and Fountain Valley. 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 and the City of Fountain Valley 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 and the City of Fountain Valley 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 September 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
Monitoring Well SA-5 Decommissioning						
Onsite	1.89	18.58	13.05	0.05	0.70	0.65
Offsite	0.18	3.95	1.50	0.01	0.44	0.13
Total	2.07	22.53	14.55	0.06	1.14	0.78
Monitoring Well M58 Phase 1 – Noise Panel and Protective Fencing Installation / Utility Clearance						
Onsite	1.01	9.81	6.25	0.02	0.37	0.34
Offsite	0.04	0.67	0.33	0.00	0.10	0.03
Total	1.05	10.48	6.58	0.02	0.47	0.37
Monitoring Well M58 Phase 2 – Monitoring Well Drilling and Construction						
Onsite	1.21	11.96	9.87	0.04	0.51	0.48
Offsite	0.08	0.43	0.59	0.00	0.20	0.05
Total	1.29	12.39	10.46	0.04	0.71	0.53
Monitoring Well M58 Phase 3 – Monitoring Well Development						
Onsite	1.15	9.95	6.03	0.03	0.34	0.33
Offsite	0.05	0.24	0.38	0.00	0.13	0.04
Total	1.20	10.19	6.41	0.03	0.47	0.37
Monitoring Well M58 Phase 4 – Site Cleanup and Traffic-Rated Vault Installation						
Onsite	0.62	4.96	3.45	0.01	0.23	0.21
Offsite	0.04	0.30	0.33	0.00	0.11	0.03
Total	0.66	5.26	3.78	0.01	0.34	0.24
Maximum Daily Emissions (All Phases)	2.07	22.53	14.55	0.06	1.14	0.78
SCQAMD Thresholds	75	100	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: Vista Environmental, 2019

Table 8 Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO ₂	PM ₁₀	PM _{2.5}
Well Sampling Equipment						
Onsite ¹	0.09	0.59	0.32	0.00	0.03	0.03
Offsite ²	0.01	0.01	0.09	0.00	0.03	0.01
Total	0.10	0.60	0.41	0.00	0.06	0.04
Well Redevelopment Equipment						
Onsite	0.90	7.63	5.46	0.03	0.25	0.24
Offsite	0.03	0.02	0.24	0.00	0.09	0.02
Total	0.93	7.65	5.70	0.03	0.34	0.26
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: 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 PM₁₀, PM_{2.5}, and O³. The proposed Project would contribute particulates and the O³ 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 paved roadways surrounded by existing development. 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. 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. 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. 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 August 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 decommissioning of the existing monitoring well site in Huntington Beach would not affect any previously undisturbed soils; therefore, it would not have the potential to result in impacts to any archeological resources. The records search review identified that there were no listed archeological sites within the area that would be subject to the installation of the monitoring well. The proposed monitoring well would be located within an area 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 Fountain Valley, 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 is 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 a monitoring well along with the installation of a new 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 and the City of Fountain Valley General Plan, segments of the Newport-Inglewood Fault are designated on the Alquist-Priolo Earthquake Fault Zoning Map within the City of Huntington Beach's boundaries. These segments of the Newport-Inglewood generally trend northwest to southeast within the western portions of the City, parallel to the coast. However, neither of the two Project components would within the Alquist-Priolo Earthquake Zone for the Newport-Inglewood Fault. 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, monitoring well SA-5 would not be subject to any potential for adverse effects as it would be rendered stable and inoperable by the construction activities. In the event a moderate-to-large earthquake occurs, the proposed monitoring well M-58 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 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 and the City of Fountain Valley General Plan each of the two locations of the Project components are within areas designated as having a “High” or “Very High” liquefaction potential. However, the Project consists of the decommissioning of an existing monitoring well 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 and Fountain Valley within highly developed areas. According to the City of Huntington Beach General Plan and the City of Fountain Valley 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 monitoring 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 and City of Fountain Valley 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 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 City of Huntington Beach General Plan and the City of Fountain Valley General Plan do not identify any paleontological resource or unique geologic features within the areas subject to impacts during the implementation of the proposed Project. However, the surficial deposits within the Cities of Huntington Beach and Fountain Valley are composed of marine older Quaternary Terrace deposits. These deposits are composed of younger Quaternary Alluvium, derived as overbank deposits from the Santa Ana River to the east of the Project areas. 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 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 the monitoring well. 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 (underlying 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 specific 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 September 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 (CO₂), methane (CH₄), ozone (O₃), water vapor, nitrous oxide (N₂O), 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.

Monitoring Well SA-5 Replacement Project

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 MTCO_{2e} 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 1.70 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 ₂ O	CO ₂ e
Construction				
Monitoring Well SA-5 Decommissioning	14.11	0.00	0.00	14.21
Monitoring Well M58 Phase 1 – Noise Panel and Protective Fencing Installation / Utility Clearance	1.79	0.00	0.00	1.81
Monitoring Well M58 Phase 2 – Monitoring Well Drilling and Construction	11.58	0.00	0.00	11.65
Monitoring Well M58 Phase 3 – Monitoring Well Development	7.71	0.00	0.00	7.71
Monitoring Well M58 Phase 4 – Site Cleanup and Traffic-Rated Vault Installation	0.84	0.00	0.00	0.85
Total Construction Emissions	36.03	0.01	0.00	36.22
Amortized Construction Emissions (30 Years) ¹	1.20	0.00	0.00	1.21
Operations				
Well Sampling	0.05	0.00	0.00	0.05
Total Well Sampling (2 times per year)	0.09	0.00	0.00	0.09
Well Redevelopment	1.19	0.00	0.00	1.20
Amortized Operational Emissions (3 Years) ²	1.19	0.00	0.00	1.20
Total Operational Emissions	0.40	0.00	0.00	0.40
Total Annual Emissions (Construction & Operations)	1.69	0.00	0.00	1.70
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. 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 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 1.70 MTCO₂e per year, which is well below the threshold of significance of 3,000 MTCO₂e 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 MTCO₂e 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 at two separate sites within the cities of Huntington Beach and Fountain Valley. The nearest school to the existing monitoring well SA-5 would be Isojiro Oka Elementary School, located approximately 800 feet west of the well site. The nearest school to the proposed Monitoring Well M-58 site would be Talbert Middle School, located approximately 1,500 feet south of the well site.

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 compiled 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 cities of Huntington Beach and Fountain Valley 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 5.3 miles east 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 roadway within the City of Huntington Beach and the City of Fountain Valley. 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 and City of Fountain Valley 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 and the City of Fountain Valley 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

Monitoring Well SA-5 Replacement Project

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 10, *Beneficial Use Descriptions*.

Monitoring Well SA-5 Replacement Project

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.
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.

Abbreviation	Beneficial Use
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.
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.

Abbreviation	Beneficial Use
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 11, *Study Area Water Body/Drainage Facilities 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 Water Body/Drainage Facilities Beneficial Uses

Santa Ana River Reach 1	Orange County Groundwater Basin
Recreation 2	Municipal Supply Waters
Recreation 1	Agriculture Supply Waters
Warm Water Habitat	Industrial Process Supply Waters
Wild Water Habitat	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 12, *Water Quality Objectives (mg/l)*, have only been established for the Orange County Groundwater Basin.

Table 12 Water Quality Objectives (mg/l)

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 10 and Table 11, 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 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 sweeping, 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 12, 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 mg/l. 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 monitoring well is only used for periodic water sampling. Therefore, the decommissioning of this facility 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 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 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 monitoring well and the construction of a new monitoring well would not 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 public roadways. Upon completion of the Project, the decommissioning site and the monitoring well site would continue to be utilized as public roadways and would not affect any existing communities. 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 proposed Project would occur within public roadways 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 Fountain Valley 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 effect 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 Fountain Valley 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 effect 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 September 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 within the City of Huntington Beach.

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 to 55 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.

The following lists the City of Fountain Valley Municipal Code regulations that are applicable to all development projects within the City of Fountain Valley.

6.28.050 Exterior noise standards

(a) The following noise standards, unless otherwise specifically indicated, shall apply to all residential property within a designated noise zone:

Noise Zone	Noise Level	Time Period
1	55 dB(A)	7 a.m. – 10 p.m.
	50 dB(A)	10 p.m. – 7 a.m.

(b) It is unlawful for any person at any location within the city to create any noise, or to allow the creation of any noise on property owned, leased, occupied or otherwise controlled by such person, when the foregoing causes the noise level, when measured on any other residential property, either incorporated or unincorporated, to exceed:

- (1) The noise standard for a cumulative period of more than thirty minute in any hour; or
- (2) The noise standard plus five dB(A) for a cumulative period of more than fifteen minutes in any hour; or
- (3) The noise standard plus ten dB(A) for a cumulative period of more than five minutes in any hour; or
- (4) The noise standard plus fifteen dB(A) for a cumulative period of more than one minute in any hour; or

(5) The noise standard plus twenty dB(A) for any period of time.

(c) In the event the ambient noise level exceeds any of the first four noise limit categories set forth in subsection (b) of this section, the cumulative period applicable to said category shall be increased to reflect said ambient noise level. In the event the ambient noise level exceeds the fifth noise limit category, the maximum allowable noise level under said category shall be increased to reflect the maximum ambient noise level.

6.28.070 Special provisions

The following activities shall be exempted from the provisions of this chapter:

(5) Noise sources associated with the construction, repair, remodeling or grading of any real property, provided said activities take place between the hours of seven a.m. and eight p.m. Monday through Friday, nine a.m. through eight p.m. on Saturday and at no time on Sunday or any legal holiday. For purposes of this exception the use of saws, buffers, sanders, drills, and sprayers shall be included, as shall similar activity.

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 or Fountain Valley 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.

Construction Impacts

Noise impacts from construction activities associated with the proposed project would be a function of the noise generated by construction equipment, equipment location, sensitivity of nearby land uses, and the timing and duration of the construction activities. The well 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 any City encroachment permits.

In order to determine if the proposed construction activities would create a significant substantial temporary noise increase, the FTA construction noise criteria thresholds detailed above in Section 4.1 have been utilized, which shows that a significant construction noise impact would occur if construction noise exceeds 90 dBA Leq worst-case hourly period at any of the nearby homes.

Construction noise impacts to the nearby sensitive receptors have been calculated are shown below in Table 13, *Construction Noise Levels at the Nearest Home to Each Construction Phase*, and the detailed data regarding the noise modeling are provided in Appendix C.

Table 13 Construction Noise Levels at the Nearest Home to Each Construction Phase

Construction Phase	Noise Level at Nearest Homes (dBA Leq)
Monitoring Well SA-5 Decommissioning ¹	82
Monitoring Well M58 Phase 1 – Noise Panel and Protective Fencing Installation / Utility Clearance ¹	79
Monitoring Well M58 Phase 2 – Monitoring Well Drilling and Construction ²	77
Monitoring Well M58 Phase 3 – Monitoring Well Development ²	75
Monitoring Well M58 Phase 4 – Site Cleanup and Traffic-Rated Vault Installation ²	73
FTA Construction Noise Threshold³	90
Exceed Threshold?	No

¹ The calculated noise levels include 5 dB of attenuation to account for the existing 6 to 8 foot high walls.

² The calculated noise levels include 10 dB of attenuation to account for Project Design Feature 1 that requires the installation of a 12-foot high temporary sound wall.

³ Construction Noise Threshold shown above in Table G (FTA, 2018).

Source: Vista Environmental, 2019

Table 13 shows that the greatest noise impacts would occur during the demolition phase of construction, with a noise level as high as 79 dBA Leq at the nearest homes to the east of the SA-5 well site. Table 13 also shows that none of the construction phases would exceed the FTA construction noise standard of 90 dBA for residential uses. Therefore, through adherence to allowable construction times provided in city's municipal code, the construction activities for the proposed Project would not create a substantial temporary increase in ambient noise levels that are in excess of applicable noise standards. Impacts would be less than significant.

Operational Impacts

In general, operation of the monitoring well would be passive as there would be no permanent equipment installed in the well. 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 on a semi-annual basis and record water levels on a monthly basis. In total, the monitoring well would be visited by OCWD staff up to 14 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 daylight hours.

The noise impacts created from the monitoring well sampling and redevelopment activities have been calculated and the noise level results are included in Appendix C of this MND. Noise modeling indicates that the greatest operational noise impact would occur during well redevelopment activities with a noise level as high as 81 dBA Leq, which is within the FTA construction noise standard of 90 dBA for residential uses. Therefore, through adherence to allowable construction times provided in both Cities Municipal Codes, the operational well

sampling and well redevelopment activities for the proposed project would not create a substantial temporary or permanent increase in ambient noise levels that are in excess of applicable noise standards. Impacts 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 second 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 5.3 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 City of Fountain Valley 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 City of Fountain Valley 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 City of Fountain Valley 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 and City of Fountain Valley. 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 paved public roadways in the City of Huntington Beach and Fountain Valley, including Brookhurst Street. The decommissioning of the existing monitoring well and the construction of monitoring well OCWD-58 would require temporary lane closures during the construction period. 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 and/or City of Fountain Valley 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 and City of Fountain Valley 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 be 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 paved public roadways in the City of Huntington Beach and City of Fountain Valley, including Brookhurst Street. The 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 and/or City of Fountain Valley 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 and City of Fountain Valley 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 and City of Fountain Valley 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 June 20, 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. A response was only received from Gabrieleno Band of Mission Indians which requested a consultation meeting on June 21, 2019. However, subsequent to the consultation meeting and after further review of the project, the Tribe informed OCWD on August 14, 2019 that there are no further comments and that the consultation was concluded. All correspondence regarding the consultation are provided in Appendix D. 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 monitoring well and the construction of the new 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 an obsolete monitoring well facility 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.

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 roadway within the City of Huntington Beach and City of Fountain Valley. 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 and City of Fountain Valley 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 or the City of Fountain Valley General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach and Fountain Valley 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 or the City of Fountain Valley General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach and Fountain Valley 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 or the City of Fountain Valley General Plan. The Project would be constructed within primarily urbanized portions of the City of Huntington Beach and Fountain Valley 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 is 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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