Orange County Water District
OCWD-43R Monitoring Well Replacement Project

Draft Initial Study/Mitigated Negative Declaration

Prepared By

Orange County Water District
18700 Ward Street
Fountain Valley, CA 92708
Contact: Shawn Nevill

May 2019

Table of Contents

Table of Contents

Tables

Figures

Appendices

SECTION 1.0 INTRODUCTION

1.1 Purpose of Environmental Review

The California Environmental Quality Act (CEQA) requires that all state and local government agencies consider the environmental consequences of projects over which they have discretionary authority before taking action on those projects. This Initial Study has been prepared to disclose and evaluate short-term construction related impacts and long-term operational impacts associated with the implementation of the Orange County Water District (OCWD) OCWD-43R Monitoring Well Replacement 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 and Greenhouse Gas Emissions Impact Analysis, Vista Environmental, November 2018
- Cultural Resources Records Search, South Central Coastal Information Center, November 2018
- Paleontological Records Search, Natural History Museum of Los Angeles, November 2018
- Noise Impact Analysis, Vista Environmental, November 2018
- Tribal Consultation Data, Orange County Water District, 2019

SECTION 2.0 PROJECT DESCRIPTION

2.1 Background

The proposed project involves the construction and operation of a multi-depth monitoring well OCWD-M43R located on the Orange Coast College (OCC) campus in City of Costa Mesa, California as shown in Figure 1, *Regional Location Map*, and Figure 2, *Local Vicinity Map*. The proposed 5-casing nested monitoring well would replace existing well OCWD-M43 that is currently maintained by Orange County Water District (OCWD) within the OCC campus. The purpose of the well is to monitor potential seawater intrusion and groundwater flow beneath the Newport Mesa. The existing monitoring well is located within the planned footprint development of a future student housing construction project and would be removed by OCC as part of a separate student housing project.

2.2 Well Site Location

As shown in Figure 3, *Site Plan*, the planned replacement monitoring well OCWD-M43R would be located on the northern end of the OCC campus, next to the OCC Recycling Center, approximately 275 feet south of Adams Avenue center line and approximately 1,065 feet west of Fairview Road. The well site is located on the USGS Newport Beach Quadrangle Map, Township 6 South, Range 10 West and Section 3. Nearby sensitive receptors include, Orange Coast College athletic fields adjacent to well site, multiple family resident uses 390 feet to the north, church 985 feet to the east, and Costa Mesa High School 1,670 feet to the southeast.

2.3 Construction Activities

The proposed construction activities would occur in four separate construction phases. Phase 1 involves surveying the well site for possible underground utilities, installation 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 be a 24-hour operation 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. There would be no overlap between construction phases.

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

Phase 1 of the Proposed Project involves installation of a temporary noise barrier, protective fencing, and utility clearance at the well site. The temporary noise barrier panels would be 24-feet high along the northern half of the construction boundaries and a minimum of 14-foot high around the southern half of the construction boundary. The temporary noise barrier would be constructed of solid material, with no cutouts or openings and the protective fencing would be a 6-foot high chain link fence. The equipment mix for Phase 2 is shown in Table 1, *Phase 1 - Noise Panel/Protective Fencing/Utility Clearance Equipment Mix*.

FIGURE 1 REGIONAL LOCATION MAP

Regional Location of Planned Replacement Monitoring Well OCWD-M43R

0 3,600 7,200 Feet

Proposed OCWD-M43R Construction Site

City of Costa Mesa

FIGURE 2 LOCAL VICINITY MAP

Location of Planned Replacement Monitoring Well OCWD-M43R and Temporary Construction Area

0 300 Feet

N W E S

⊕ Proposed OCWD-M43R Well

▭ Proposed Construction Site

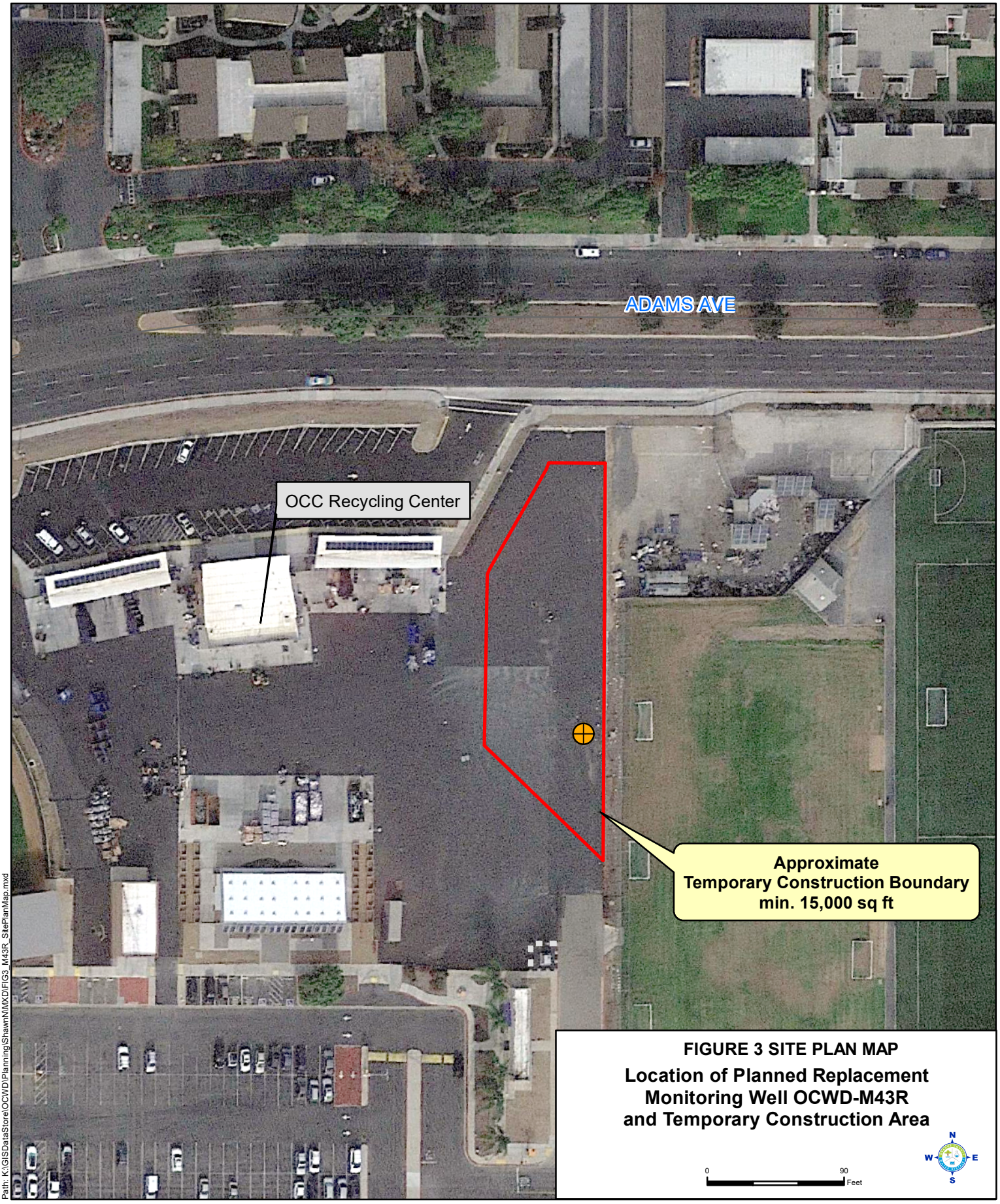

FIGURE 3 SITE PLAN MAP

Location of Planned Replacement Monitoring Well OCWD-M43R and Temporary Construction Area

N
W E
S

0 90 Feet

Proposed OCWD-M43R Well

Proposed Construction Site

Table 1 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	10	1	550
Utility Clearance	Vacuum Truck	1	10	1	550
Install Fencing	No Equipment				
Construction Trips: 1 trip mobilizing, 1 trip demobilizing. All trips assume a total of 50 miles.					
Source: OCWD, 2018					

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 flooded reverse circulation rotary drilling method. To reduce the risk of a borehole collapse during the drilling and well construction phase, a 24-hour operation of activities would be required. The monitoring well would include up to five 4-inch diameter PVC casings installed into a single 24-inch diameter wide borehole to an approximate depth of 560 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 five 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 2 foot by 3-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 2, *Phase 2 - Well Drilling/Construction Equipment Mix*.

Table 2 Phase 2 - Well Drilling/Construction Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Drilling & Construction	Flood Reverse Circulation Rotary Drilling Rig	1	24	6	550
Well Drilling & Construction	Mud Tank	1	24	6	75
Well Drilling & Construction	Fork Lift	1	24	6	75
Construction Trips: 1 trip mobilizing, 1 trip demobilizing. All trips assume a total of 50 miles.					
Source: OCWD, 2018					

Phase 3: Monitoring Well Development

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

Table 3 Phase 3 - Well Development Equipment Mix

Activity	Equipment	Pieces of Equipment	Hours of Operation	Days of Operation	Horsepower
Well Development	Pump Rig	1	10	17	325
Well Development	Air Compressor	1	10	17	200
Well Development	Electrical Generator	1	10	17	20

Source: OCWD, 2018

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 4, *Phase 4 - Subgrade Protective Well Vault Installation Equipment Mix*, identifies the equipment mix for Phase 4.

Table 4 Phase 4 - 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	8	1	550
Receive and Install Pre-cast Concrete Vault	Fork Lift	1	8	1	75
Install Well Vault	No Equipment				

Source: OCWD, 2018

2.4 Monitoring Well Operation and Maintenance Activities

Monitoring well operation involves periodically measuring the depth to groundwater and collecting groundwater samples for laboratory analysis. The depth to groundwater would be measured by hand using a battery-powered wire-line sounder. During a groundwater sampling event, a portable submersible pump would be lowered in each of the well casings. Operation of a submersible pump to lift water from the well would require the use of a small portable generator. OCWD staff would collect groundwater samples and record water levels on a semi-annual basis. In total, the 5-casing monitoring well would be visited by OCWD staff up to two times a year. One truck and two workers would access each well site during sampling, assuming a round trip length

of 10 miles per trip. One truck and one worker would access each well site during collection of water levels, assuming a round trip length of 10 miles. Every three to five years OCWD would conduct maintenance activities to redevelop the well. A typical monitoring well redevelopment process would be completed in one day. All sampling and redevelopment activities would occur during daylight hours. Table 5, *Monitoring Well Sampling and Redevelopment Equipment Mix,* identifies the equipment required for well sampling and redevelopment.

Table 5 Monitoring Well Sampling and Redevelopment Equipment Mix

Equipment	Pieces of Equipment	Hours per Day	Days of Operation	Horsepower
Sampling Equipment				
Generator	1	9	1	20
Redevelopment Equipment				
Pump Rig	1	9	1	325
Air Compressor	1	9	1	200
Pick-up Truck	1	2	1	300

Notes: Sampling & Redevelopment Trips: 1 round trip, All trips assume 10 miles.

Source: OCWD, 2018

2.5 Permits, Approvals, and Agreements

The following are additional required approvals and permits.

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

SECTION 3.0 ENVIRONMENTAL CHECKLIST EVALUATIONS

Project Title:

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

3. Project Contact: Shawn Nevill, Principal Environmental Planner

4. Location: City of Costa Mesa

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

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

_____ _____

Signature/Title Date

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

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agriculture use or conversion of forestland to non-forest use?				X
III - Air Quality: Would the project				
a) Conflict with or obstruct implementation of the applicable air quality plan?			X	
b) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or State ambient air quality standard?			X	
c) Expose sensitive receptors to substantial pollutant concentrations?			X	
d) Result in other substantial emissions (such as those leading to odors) adversely affecting a substantial number of people?			X	
IV - Biological Resources: Would the project				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Wildlife or U.S. Fish and Wildlife Service?			X	
c) Have a substantial adverse effect on state or federally protected wetlands (including,			X	

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?				
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?	☐	☐	X	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	X	☐
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☐	X	☐
V - Cultural Resources: Would the project				
a) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	☐	X	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?	☐	X	☐	☐
c) Disturb any human remains, including those interred outside of dedicated cemeteries?	☐	☐	X	☐
VI - Energy: Would the project				
a) Result in a potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy, or wasteful use of energy resources, during project construction or operation?	☐	☐	X	☐

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Conflict with or obstruct a state or local plan for renewable energy or energy efficiency?			X	
VII - Geology and Soils: Would the project				
a) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?				X
b) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving strong seismic ground shaking?			X	
c) Directly or indirectly cause potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?			X	
d) Directly or indirectly cause potential substantial adverse effects involving landslides?				X
e) Result in substantial soil erosion or the loss of topsoil?			X	
F) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-or-off site landslide, lateral spreading, subsidence, liquefaction or collapse?			X	
g) Be located on expansive soil, as defined in Table 18-1-B of the uniform Building code (1994), creating substantial direct or indirect risks to life or property.			X	

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
h) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of wastewater.				X
I) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.		X		
VIII - Greenhouse Gas Emissions: Would the project				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?			X	
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?			X	
IX - Hazards and Hazardous Material: Would the project				
a) Create a significant hazard to the public or the environment through the routine transport, use or disposal of hazardous materials?			X	
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?			X	
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?			X	

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Be located on a site which is included on a list of hazardous materials sites complied pursuant to Government Code Section 65962.5 and as a result, would create a significant hazard to the public or the environment?				X
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard or excessive noise for people riding or working in the project area?				X
f) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?			X	
g) Expose people or structures, either directly or indirectly, to a significant risk of loss, injury or death involving wildland fires?				X
X - Hydrology and Water Quality: Would the project				
a) Violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?			X	
b) Substantially decrease groundwater supplies or interfere substantially with groundwater recharge such that the project may impede sustainable groundwater management of the basin?				X
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would result in substantial erosion or siltation on-or-offsite?			X	

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would substantially increase the rate or amount of surface water runoff in a manner which would result in flooding on-or-off site?	☐	☐	X	☐
e) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?	☐	☐	X	☐
f) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or through the addition of impervious surfaces, in a manner which would create or contribute runoff water which would impede or redirect flood flows?	☐	☐	X	☐
g) In flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?	☐	☐	X	☐
h) Conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	☐	☐	X	☐
XI - Land Use and Planning: Would the project				
a) Physically divide an established community?	☐	☐	☐	X

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Cause a significant environmental impact due to a conflict with any land use plan, policy or regulation adopted for the purposes of avoiding or mitigating an environmental effect?			X	
XII - Mineral Resources: Would the project				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?				X
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan.				X
XIII - Noise: Would the project result in:				
a) Generation of a substantial temporary or permanent increase in ambient noise levels in the vicinity of the project in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?				X
b) Generation of excessive groundborne vibration or groundborne noise levels?			X	
c) For a project located within the vicinity of a private airstrip or an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?			X	
XIV - Population and Housing: Would the project				
a) Induce substantial unplanned population growth in an area, either directly by proposing new homes and indirectly through extension of roads or other infrastructure?				X

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Displace substantial numbers of existing people or housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	X
XV - Public Services: Would the project				
a) Result in substantial adverse physical impacts associated with the provision of new or physically altered government facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services?	☐	☐	☐	X
Fire Protection	☐	☐	☐	X
Police Protection	☐	☐	☐	X
Schools	☐	☐	☐	X
Parks	☐	☐	☐	X
Other Public facilities	☐	☐	☐	X
XVI - Recreation: Would the project				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☐	☐	X

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?				X
XVII - Transportation: Would the project				
a) Conflict with a program, plan, ordinance or policy addressing the circulation system, including transit, roadways, bicycle lanes and pedestrian facilities?			X	
b) Conflict or be inconsistent with CEQA Guidelines Section 15064.3 Subdivision (b)?			X	
c) Substantially increase hazards due to a geometric design feature or incompatible uses?			X	
d) Result in inadequate emergency access?			X	
XVIII - Tribal Cultural Resources: Would the project				
a) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place or object with cultural value to a California Native American tribe and that is listed or eligible for listing in the California Register of Historic Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1 (K)?		X		
b) Cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape, sacred place or object with		X		

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
cultural value to a California native American tribe and that is a resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in Subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe?				
XIX - Utilities and Service Systems: Would the project				
a) Require or result in the relocation or construction of new or expanded water, wastewater treatment or storm water drainage, electric power, natural gas or telecommunications facilities, the construction or relocation of which could cause significant environmental effects?			X	
b) Have sufficient water supplies available to serve the project and reasonably foreseeable future development during normal, dry and multiple dry years?			X	
c) Result in a determination by the wastewater treatment provider which services or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?				X
d) Generate solid waste in excess of State or local standards or in excess of the capacity of local infrastructure, or otherwise impair the attainment of solid waste reduction goals?			X	
e) Comply with federal, state, and local management and reduction statutes and regulations related to solid waste?			X	

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
XX - Wildfire: If located in or near state responsibility areas or lands classified as very high fire hazard severity zones, would the project:				
a) Substantially impair an adopted emergency response plan or emergency evacuation plan?	☐	☐	X	☐
b) Due to slope, prevailing winds, and other factors, exacerbate wildfire risks, and thereby expose project occupants to pollutant concentrations from a wildfire or the uncontrolled spread of a wildfire?	☐	☐	☐	X
c) Require the installation or maintenance of associated infrastructure (such as roads, fuel breaks, or emergency water sources, that may exacerbate fire risk or that may result in temporary or ongoing impacts to the environment?	☐	☐	☐	X
d) Expose people or structures to significant risks, including downslope or downstream flooding or landslides, as a result of runoff, post-fire slope stability, or drainage changes?	☐	☐	X	☐
XXI - Mandatory Findings of Significance				
a) Does the project have the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife populations to drop below self-sustaining levels, threaten to eliminate a plant or animal community, substantially reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or pre-history.	☐	X	☐	☐

Environmental Resource	Potential Significant Impact	Less Than Significant with Mitigation Incorporated	Less Than Significant Impact	No Impact
b) Does the project have impacts that are individually limited, but cumulatively considerable?	☐	X	☐	☐
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly.	☐	X	☐	☐

SECTION 4.0 ENVIRONMENTAL ANALYSIS

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

4.1 Aesthetics

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

No Impact: The proposed monitoring well site is located within urbanized area and is surrounded by developed land uses. There are no scenic resources near the location where the proposed monitoring well would be constructed. Additionally, the City of Costa Mesa General Plan does not identify any scenic vistas near the proposed monitoring well site. The construction and operation of the proposed Project would not adversely impact existing vistas. No impact would occur and mitigation is required.

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

No Impact: According to the California Department of Transportation Scenic Highways Program, the closest designated and/or eligible State Scenic Highway to the study area would be State Route 1, Pacific Highway, which is located approximately 3.75 miles to the south of the proposed well site and is separated from the Project site by intervening topography and development. At this distance the well site would not be within the view shed of motorist. Therefore, construction and operation of the Proposed Project would not have any adverse impact on existing scenic resources located along a State Scenic Highway. No impact would occur and mitigation is required.

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 site is located in a highly urbanized area within a developed parking area associated with the OCC recycling facility. The proposed monitoring well would be located underground and would not have a visual presence. During construction, the visual character of the study area would be temporarily altered with construction activity. The construction activity at well site would be approximately month and once construction operations are completed the well site would be returned to its pre-project condition. Construction and operation of the proposed Project would not substantially degrade the existing visual character or quality of the site and its surrounding area. No impact would occur and mitigation is required.

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 require temporary nighttime construction that would utilize nighttime construction lighting. However, the lighting would be limited to the area immediately surrounding the well construction site and would only be implemented for the duration of the Project construction that requires nighttime construction. Accordingly, the temporary nighttime lighting would not require the introduction substantial amounts of artificial lighting. During operation, the Project would not result in the introduction of any lighting or 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 a paved parking area surrounded by developed properties. 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 proposed monitoring well sites. Therefore, the construction and operation of the proposed Project would not result in adverse impacts to Prime Farmland, Unique Farmland or Farmland of Statewide Importance. No impacts would occur.

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

No Impact: The City of Costa Mesa Zoning Map shows that the proposed monitoring well site is not 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 Costa Mesa Zoning Map shows that none of the proposed monitoring well sites are 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 impacts 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 on the proposed monitoring well site. Therefore, the construction and operation of the proposed Project would not convert existing forest land to non-forest land. No mitigation is required.

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 on the proposed monitoring well 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 and Greenhouse Gas Analysis Emissions Impact Analysis Report prepared by Vista Environmental in November 2018. The Air Quality and Greenhouse Gas Analysis Report 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 6, *Construction Emissions*, and Table 7, *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 6 Construction Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Phase 1 – Noise Panel & Protective Fencing/Utility Clearance						
Onsite[1]	3.73	39.52	22.95	0.05	2.08	1.49
Offsite[2]	0.07	0.54	0.50	0.00	0.16	0.05
Total	**3.80**	**40.06**	**23.45**	**0.05**	**2.24**	**1.54**
Phase 2 – Monitor Well Drilling & Construction						
Onsite	3.36	34.96	27.27	0.09	1.61	1.53
Offsite	0.06	0.54	0.42	0.00	0.14	0.04
Total	**3.42**	**35.50**	**27.69**	**0.09**	**1.75**	**1.57**
Phase 3 – Monitor Well Development						
Onsite	1.34	12.28	6.92	0.03	0.41	0.39
Offsite	0.06	0.54	0.42	0.00	0.14	0.04
Total	**1.40**	**12.82**	**7.34**	**0.03**	**0.55**	**0.43**
Phase 4 – Site Cleanup & Traffic-Related Vault Installation						
Onsite	2.06	21.12	14.28	0.03	1.01	0.93
Offsite	0.05	0.53	0.35	0.00	0.12	0.04
Total	**2.11**	**21.65**	**14.63**	**0.03**	**1.13**	**0.97**
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, 2018

Table 7 Operational Pollutant Emissions

Activity	Pollutant Emissions (pounds/day)					
	VOC	NOx	CO	SO_2	PM10	PM2.5
Well Sampling						
Onsite[1]	0.21	1.35	0.73	0.00	0.06	0.06
Offsite[2]	0.03	0.29	0.25	0.00	0.08	0.02
Total Emissions	**0.24**	**1.64**	**0.98**	**0.00**	**0.14**	**0.08**
Well Rehabilitation						
Onsite	1.07	9.20	6.84	0.02	0.34	0.32
Offsite	0.03	0.22	0.20	0.00	0.08	0.02
Total Emissions	**1.10**	**9.42**	**7.04**	**0.02**	**0.42**	**0.34**
SCQAMD Operational 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, 2018

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

Less Than Significant: The region is a Federal and/or State nonattainment area for PM_{10}, $PM_{2.5}$, and O^3. The Proposed Project would contribute particulates and the O^3 precursors VOC and NO^x to the area during short-term Project construction and long-term Project operations. The SCAQMD considers the thresholds for project-specific impacts and cumulative impacts to be the same. As described above, construction and operational regional emissions would be less than

the SCAQMD CEQA significance thresholds and would be less than significant. Therefore, regional emissions would not be cumulatively considerable, and the impact would be less than significant.

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

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

Carbon Monoxide Hotspots

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

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

Criteria Pollutants from On-Site Construction

As described in the construction and operational "Ambient Air Quality and Localized Significance Thresholds" discussions 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 would be located within a paved parking lot that is surrounded by existing development. 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 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 would be located within a paved parking lot that is surrounded by existing development. The Project would not be located within, or otherwise affect any 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 would be located within a paved parking lot that is 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 would be located within a paved parking lot that is surrounded by existing development. The Project would not be located within, or otherwise affect the movement of any migratory fish or wildlife species. 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 be located within a paved parking lot that is surrounded by existing development. The Project does not contain any biological resources,

including trees that would be subject to a local policy or ordinance that protects such resources. 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 is located on a developed site and is not 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 ½ cultural resources record search was prepared for the proposed Project at the South Coast Information Center. 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 ½ 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 well site is located within an urbanized area and surrounded by developed land uses. The records search review identified that there were no listed historical properties on the proposed well site or within the nearby areas. The Project would occur

within a paved parking lot associated with a recycling center. Accordingly, as the Project would not affect any structures or other improvements beyond the parking lot, 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 and surrounded by developed land uses. The records search review identified that there were no listed historical properties on the proposed well site or within the nearby areas. The proposed well site is located within a parking lot where the natural ground surface has been disturbed by urban development. As a result, a field survey would yield no reliable data. Even though the well site appears to have been previously disturbed, because archeological resources are known to occur within the City of Costa Mesa, 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 or paleontological resources are discovered, all work within the vicinity of the find shall immediately halt until a Qualified Cultural Resources Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Archeological Consultant has concluded their assessment of the resources. The Qualified Cultural Resources shall prepare a letter report that documents the find and implements appropriate measures for the treatment and/or deposition of the materials such as deposition in an institution for permanent curation or transfer to an affiliated Native American tribe based on the nature of the find.

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. Compliance with mandatory statutes would ensure that the potential impacts to human remains 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 produced by portable generators. 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 installation of a passive monitoring well and would not require the permanent consumption of electricity or other forms of energy beyond the occasional use of a portable generator to extract groundwater samples. Accordingly, due to the nature of the Project and the operational characteristics of the Project, the construction and operation of the proposed monitoring well would not conflict with any State or local plans related to renewable energy or energy efficiency.

4.7 Geology/Soils

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

No Impact: According to the City of Costa Mesa General Plan there is not an Alquist-Priolo Earthquake Fault Zone on or near the proposed monitoring well site. Therefore, it is unlikely that the proposed monitoring well would be subject to ground rupture impacts. No impact would occur.

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 and the San Joaquin Hills Fault. Other faults such as the San Andreas, Whittier, Elsinore, Palos Verdes, and Puente Hills Faults. In the event a moderate-to-large earthquake occurs, the proposed monitoring well could have the potential for periodic shaking, possibly of considerable intensity. The risk for seismic shaking impacts at the proposed monitoring well site would be similar to other areas in the Southern

California region. Moreover, the proposed Project would be installed within an existing parking lot and would not be located within the immediate vicinity of any buildings. 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 as a 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 Costa Mesa General Plan, the Project site is not located within an area designed as having a high liquefaction risk. Additionally, the Project would not construction any new habitable structures. 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 a relatively flat portion of the City of Costa Mesa in a paved parking area and would be surrounded by existing development. According to the City of Costa Mesa General Plan, the Project site is not located in an area that would be 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 drilling operations associated with the construction of the proposed monitoring well would occur on paved roadway surfaces. No soils would be exposed that could be subject to 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 Costa Mesa General Plan does not identify the site as occurring within an area of geologic hazard, including hazards associated with unstable soils. The primary geologic concern at the proposed monitoring well site would be potential seismic shaking impacts. As previously identified, the proposed monitoring well would be designed to meet to meet the mandatory California Department of Water Resources Well Standards Bulletin 74-90 and Bulletin 74-81 to withstand anticipated ground shaking caused by an earthquake within an acceptable level of risk. With compliance with California Department of Water Resources Well Standards Bulletin 74-90 and Bulletin 74-81 potential seismic shaking impacts would be less than significant.

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

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

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

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

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

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

According to NHLMAC, the entire study area has surficial deposits composed of marine older Quaternary Terrace deposits. These deposits contain both marine and terrestrial fossil vertebrates. Based on the NHLMAC record search there are not any recorded vertebrate fossil localities that lie directly within the study area, but there are nearby localities in the same sediments that could contain older Quaternary deposits. The closest fossil vertebrate localities

from these particular older Quaternary deposits are LACM 1339, located southwest of the Project site along Adams Avenue near the top of the mesa bluffs east of the Santa Ana River, which produced fossil specimen of mammoth and camel at approximately 15 feet below the ground surface and LACM 4219, located southeast of the Project area in a roadcut for the SR-55 Freeway at Santa Isabel Avenue, that produced fossil specimens of sea turtle approximately 30 feet below the ground surface.

The shallow excavations in the uppermost layers of soil and marine older Quaternary Terrace deposits exposed at the Project site are unlikely to uncover significant vertebrate fossils due to the disturbed nature of the Project site and the presence of engineered fill materials (underlaying the parking lot) 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, a halt condition should be in place for any ground-disturbing activities. With the implementation of Mitigation Measure MM CR-1 potential adverse impacts to unknown paleontological resources would be reduced 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 or paleontological resources are discovered, all work within the vicinity of the find shall immediately halt until a Qualified Cultural Resources Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Archeological Consultant has concluded their assessment of the resources. The Qualified Cultural Resources shall prepare a letter report that documents the find and implements appropriate measures for the treatment and/or deposition of the materials such as deposition in an institution for permanent curation or transfer to an affiliated Native American tribe based on the nature of the find.

4.8 Greenhouse Gas Emissions

The following analysis is based on an Air Quality and Greenhouse Gas Emissions Impact Analysis report prepared by Vista Environmental in November 2018. The construction equipment mix and hours of operation for well construction proposed for the Project would be consistent with construction equipment mix and hours of operation analyzed for well construction by Vista Environmental. The Air Quality and Greenhouse Gas Emissions Impact Analysis is presented in its entirety in Appendix A.

Background

Greenhouse Gas Emissions (GHGs) are comprised of atmospheric gases and clouds within the atmosphere that influence the earth's temperature by absorbing most of the infrared radiation that rises from the sun warmed surface and that would otherwise escape into space. Prominent greenhouse gases contributing to this process include carbon dioxide (CO_2), methane (CH_4), ozone (O_3), water vapor, nitrous oxide (N_2O), and chlorofluorocarbons (CFCs). GHGs are emitted by natural processes and human activities. Anthropogenic (caused or produced by humans)

emissions of these greenhouse gases in excess of natural ambient concentrations are responsible for the enhancement of the greenhouse effect and have led to a trend of unnatural warming of the Earth's natural climate, known as global warming or climate change.

Regulatory Framework

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

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

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

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

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

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

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

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

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

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

Project Impacts

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

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

GHG emissions for each construction and operational activities are shown in Table 8, *Project-Related Greenhouse House Gas Emissions*, below. As shown in Table 8, the Project would result in the generation of 2.47 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 8 Project-Related Greenhouse House Gas Emissions

Category	Greenhouse Gas Emissions (Metric Tons per Year)			
	CO_2	CH_4	N_2O	CO_2e
Construction				
Noise Panel & Protective Fencing/Utility Clearance	2.58	0.00	0.00	2.60
Monitor Well Drilling & Construction	25.36	0.01	0.00	25.53
Monitor Well Development	25.85	0.00	0.00	25.97
Site Cleanup & Traffic-Related Vault Installation	1.38	0.00	0.00	1.39
Total Construction Emissions	55.18	0.01	0.00	55.49
Amortized Construction Emissions (30 Years)[1]	1.84	0.00	0.00	1.85
Operations				
Well Sampling	0.13	0.00	0.00	0.13
Total Well Sampling (2 times per year)	0.27	0.00	0.00	0.27
Well Redevelopment	1.05	0.00	0.00	1.06
Amortized Operational Emissions (3 Years)[2]	0.35	0.00	0.00	0.35
Total Operational Emissions	0.62	0.00	0.00	0.62
Total Annual Emissions (Construction & Operations)	**2.46**	**0.00**	**0.00**	**2.47**
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., 2018

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 well. OCWD staff would collect groundwater samples and record water levels on a semi-annual basis. In total, the 5-casing monitoring well would be visited by OCWD staff up to two times a year. Every three to five years OCWD would conduct maintenance activities to redevelop the well. A typical monitoring well redevelopment process would be completed in one day

As discussed above, the proposed Project is anticipated to create 2.47 $MTCO_2e$ per year, which is well below the threshold of significance of 3,000 $MTCO_2e$ per year. Additionally, activities associated with the Project would be subject to all applicable federal, state, and regional requirements adopted for the purpose of reducing GHG emissions. Further, because the Project would generate GHG emissions substantially below the threshold of significance of 3,000 $MTCO_2e$ per year, it would not interfere with implementation of any of the State's GHG reduction goals for 2030 or 2050. Therefore, the proposed Project would not conflict with any applicable plan, policy or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases, resulting in a less than significant impact.

4.9 Hazards/Hazardous Materials

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

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

The long-term operation of the proposed monitoring well would not involve the routine transportation, disposal or emission of hazardous materials or waste. Construction operations associated with the 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 monitoring well 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 monitoring well would not have the potential to release hazardous materials into the environment. As indicated previously, construction operations associated with 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 would be located within a parking lot associated with a recycling center that is along the northern perimeter of the Orange Coast College campus. Further, Costa Mesa High School is located 0.3 miles to the southeast of the Project site and Davis Magnet School is located 0.6 miles to the southeast. However, although incidental amounts of hazardous materials, such as fuels, oils and solvents would be temporarily used during the construction of the monitoring well, the proposed Project would not involve the handling, storage, or emission of substantial amounts of hazardous or accurately hazardous substances. Accordingly, impacts associated with the handling or emission of hazardous materials near schools would be less than significant.

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

No Impact: A review of all sites within the City of Costa Mesa 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 2.5 miles west of the Project site. The Project site is not located within airport land use plan for John Wane International Airport and would not result in any safety hazards or excessive noise associated with the airport. Accordingly, no impacts related to the airport safety and noise hazards would occur.

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

Less Than Significant: The Project would be located in a paved portion of the parking area associated with the recycling facility at Orange Coast College. Following construction and during Project operation, the monitoring well site would be covered in manner that would allow full vehicular access within the parking area. The parking area is not located within a public street or any other area designated for use as an emergency evacuation route. Moreover, if the Project site were to be used for an emergency response or evacuation, the below-grade installation would not affect the surface use of the Project site for such an emergency response or evacuation. 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 Costa Mesa General Plan, the proposed monitoring well site is not adjacent to or intermixed with wild lands and would not be susceptible wild land fire impacts. Therefore, no impacts associated with wildland fires would occur.

4.10 Hydrology/Water Quality

Surface Waters

The project site is within the Newport Bay Watershed, which encompasses an area of approximately 154 square miles with overland flows draining toward the Pacific Coast into Upper Newport Bay (City of Costa Mesa General Plan Final Environmental Impact Report, 2016). The project is located within Santa Ana–Delhi Channel Sub Watershed which covers approximately 17 square miles. The channel is an artificial drainage that conveys water from the city of Santa

Ana and portions of Costa Mesa into Upper Newport Bay. The Santa Ana–Delhi Channel watershed is fully urbanized, with about 95% of it covered by urban land uses.

Storm water generated from the project site drains into the Paularino Flood Control Channel into the Santa Ana–Del-Hi Channel and then into Upper Newport Bay Surface water flows from the Santa Ana–Del-Hi Channel accounts for about 15% of discharges into Upper Newport Bay. The balance of the additional flows into Upper Newport Bay are from San Diego Creek and from other small tributaries.

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 to 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 study area is situated within the Main Basin area of the Orange County Groundwater Basin.

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. A list of the study area receiving water bodies that have been listed as 303 (d) impaired water bodies is shown in Table 9, *303 (D) Listed Impaired Water Bodies*.

Table 9 303 (D) Listed Impaired Water Bodies

Water Body	Impairment	Proposed TMDL Completion
Santa Ana Del-Hi Channel	Indicator Bacteria	2021
Upper Newport Bay	Copper	Implementation Phase

Section 402

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

Short-Term Storm Water Management

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

Long-Term Storm Water Management

The proposed Project would be implemented in the City of Costa Mesa. The City of Costa Mesa 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 waters within the Santa Ana Region 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*.

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.

Abbreviation	Beneficial Use
RARE	Rare, Threatened or Endangered Species (RARE) waters support habitats necessary for the survival and successful maintenance of plant or animal species designated under state or federal law as rare, threatened or endangered.
MUN	Municipal and Domestic Supply waters are used for community, military, municipal or individual water supply systems. These uses may include, but are not limited to, drinking water supply.
AGR	Agricultural Supply waters are used for farming, horticulture or ranching. These uses may include, but are not limited to irrigation, stock watering, and support of vegetation for range grazing.
IND	Industrial Service Supply waters are used for industrial activities that do not depend primarily on water quality. These uses may include, but are not limited to mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection and oil well depressurization.
PROC	Industrial Process Supply waters are used for industrial activities that depend primarily on water quality. These uses may include, but are not limited to, process water supply and all uses of water related to product manufacture or food preparation.
NAV	Navigation waters are used for shipping, travel, or other transportation by private, commercial or military vessels.
POW	Hydropower Generation waters are used for hydroelectric power generation.
COMM	Commercial and Sportfishing waters are used for commercial or recreational collection of fish or other organisms
EST	Uses of water that support estuarine ecosystems including, but not limited to preservation or enhancement of estuarine habitats, vegetation, fish, shell fish or wildlife.
WET	Uses of water that support wetland ecosystems, including but not limited to preservation or enhancement of wetland habitats, vegetation, fish, shellfish, or wildlife, and other unique wetland functions which enhance water quality, such as providing flood and erosion control, stream bank stabilization, and filtration and purification of naturally occurring contaminants.
MAR	Use of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shell fish or wildlife.
MIGR	Uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
SPWN	Use of water that support high quality aquatic habitats suitable for reproduction and early development of fish.
SHELL	Use of water that support habitats suitable for the collection of filter-feeding shellfish for human consumption, commercial or sports purposes.

As shown in Table 11, *Study Area Water Body/Drainage Facilities Beneficial Uses*, the Basin Plan identifies beneficial uses for the Santa Ana Del-Hi Channel and Upper Newport Bay and the Orange County Groundwater Basin.

Table 11 Study Area Water Body/Drainage Facilities Beneficial Uses

Beneficial Use	Santa Ana Del-Hi Channel	Upper Newport Bay	Orange County Groundwater Basin
MUN	NL	NL	X
GWR	NL	NL	X
AGR	NL	NL	X
IND	NL	NL	X
PROC	NL	NL	X
REC 1	NL	X	NL
REC 2	X	X	NL
COMM	NL	X	NL
BIOL	NL	X	NL
WARM	X	NL	NL
WILD	X	X	NL
RARE	NL	X	NL
SPWN	NL	X	NL
MAR	NL	X	NL
SHEL	NL	X	NL
EST	NL	X	NL

Notes:
NL = Not listed
X = Existing or Potential Beneficial Use
Source: Santa Ana Region Basin Plan, 1995 (Updated in 2016)

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 (mgl)*, have only been established for the Orange County Groundwater Basin.

Table 12 Water Quality Objectives (mgl)

Reach	TDS	HARD	Na	CI	TIN	SO4	COD
Santa Ana Del-Hi Channel	NL	NL	NL	NL	NL	NL	NL
Upper Newport Bay	NL	NL	NL	NL	NL	NL	NL
Orange County Groundwater Basin	580	NL	NL	NL	NL	NL	NL

Notes:

NL- Not Listed, (1) Five year moving Average

Concentrations in Units of Milligrams Per Liter

TDS= Total Dissolved Solids, HARD=Hardness, Na= Sodium, TIN= Total Inorganic Nitrogen, CI=Chloride, SO4=Sulfate, COD=Chemical Oxygen Demand

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 Plans identifies Beneficial Uses for the Santa Ana Del-Hi Channel, Upper Newport Bay and the Orange County Groundwater Basin and water quality objectives for the Orange County Groundwater Basin. Additionally, as shown in Table 9, Del-Hi Channel and Upper Newport Bay have been identified as 303 (d) Impaired Water Bodies. The following analysis evaluates if the Proposed Project would conflict with beneficial uses and water quality objectives established in the Basin Plans 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 Santa Ana Del-Hi Channel and the Upper Newport Bay. During construction, Best Management Practices (BMPs) would be implemented to minimize any surface water runoff impacts. Such control measures could include street weeping, storm drain inlet protection, tracking controls, waste management and regular inspections and maintenance of BMPs. With the implementation mandatory BMPs, potential construction-related storm water impacts would be less than significant.

Effluent water would be generated as a component of well drilling and well development activities. 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 Santa Ana Del-Hi Channel or Upper Newport Bay.

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 mgl. There is the potential surface water runoff generated from construction activities could contain elevated levels of TDS. However, the surface water runoff would be controlled by BMP's and it would be unlikely that it would infiltrate into the groundwater basin and conflict with the Basin Plan Water Quality objectives.

Section 303 (d) Impaired Water Bodies

The RWQCB lists Santa Ana Del-Hi Channel has impaired for indicator bacteria and Upper Newport bay impaired for copper. It is very unlikely that the construction activities for the monitoring well or effluent generated from well development pumping would be would introduce elevated levels of indicator bacteria or copper into any the study drainages or downstream receiving water bodies or that groundwater. With the implementation mandatory BMPs and compliance with all applicable local, State, and federal regulations pertaining to stormwater discharge, 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 purpose of the well is to monitor potential seawater intrusion and groundwater flow beneath the Newport Mesa 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 monitoring well would be confined to the Project site and would not alter any existing drainage patterns within the Project site or 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 be constructed within an existing paved parking lot that contains storm drain facilities. No additional impervious 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 be constructed within an existing paved parking lot that contains storm drain facilities. No additional impervious 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 be constructed within an existing paved parking lot that contains storm drain facilities. No additional impervious 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: The Project site is not located in a designated flood hazard, tsunami, or seiche zone and would not include the use of or storage of any pollutants that could be released in such an event. Accordingly, impacts associated with this issue would be less than significant.

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

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

4.11 Land Use and Planning

A. Would the project physically divide an established community?

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

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

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

4.12 Mineral Resources

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

No Impact: According to the City of Costa Mesa 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. 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 Costa Mesa General Plan, the land where the proposed monitoring well would be constructed are not known to contain locally or regionally important mineral deposits. 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 November 2018. The technical report is included in Appendix D 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 Costa Mesa Municipal Code regulations that are applicable to all development projects in the City.

Section 13-279 Construction Noise Exceptions. Section 13-279(a) of the City's Municipal Code exempts construction activities from the City's noise level standards provided that they take place between the hours of 7:00 a.m. and 7:00 p.m. on Mondays through Fridays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. Construction activities are not exempt from the Municipal Code at any time on Sundays or federal holidays.

Section 13-280 Residential Noise Standards. Section 13-280(a) of the City's Municipal Code limits exterior noise impacts to all residential properties to 55 dBA from 7:00 a.m. to 11:00 p.m. and 50 dBA from 11:00 p.m. to 7:00 a.m.

Section 13-282 School Noise Standards. Section 13-282(a) of the City's Municipal Code limits exterior noise impacts to all school properties while the school is in use to 55 dBA from 7:00 a.m. to 11:00 p.m. and 50 dBA from 11:00 p.m. to 7:00 a.m.

Sensitive Receptors

The nearest sensitive receptor to the Project site are the Orange Coast College athletic fields that are located adjacent to east side of the proposed well site. Other nearby sensitive receptors include multifamily residential uses located as near as 390 feet to the north, a church located as near as 985 feet to the east, and Costa Mesa High School that is located as near as 1,670 feet to the southeast.

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 Costa Mesa noise standards. The noise levels in the study area would be influenced by well construction activities and from on-going well maintenance activities.

City of Costa Mesa Municipal Code Section 13-279(b) exempts construction activities from the City's noise level standards provided that they take place between the hours of 7:00 a.m. and 7:00 p.m. on Mondays through Fridays and between the hours of 9:00 a.m. and 6:00 p.m. on Saturdays. Construction activities are not exempt from the Municipal Code at any time on Sundays or federal holidays. Since, the Municipal Code does not provide any limits to the noise levels that may be created from construction activities that occur during the allowable times for construction, the OCWD utilizes the Federal Transport Administration's (FTA) construction noise thresholds of 80 dBA Leq during the daytime. Accordingly, the proposed Project would result in a significant construction impact if construction noise exceeds 80 dBA Leq between 7:00 a.m. and 7:00 p.m.

For construction activities that occur outside of the exempt times (between the hours of 7:00 p.m. and 7:00 a.m., construction noise is limited to the noise standards provided in Section 13-280(a) of the Municipal Code that limits noise levels to 55 dBA between 7:00 a.m. and 11:00 p.m. and 50 dBA between 11:00 p.m. and 7:00 a.m. at the exterior of any residential home. In addition, Section 13-282(a) of the Municipal Code requires that the noise level at the exterior of schools do not exceed the noise standards detailed in Section 13-280(a), while the school is in use.

The operational noise impacts would be limited to construction equipment noise sources associated with well sampling and redevelopment activities. As well sampling and redevelopment activities would be short-term periodic and would therefore be substantially similar to the initial construction activities, this noise analysis applies the construction noise thresholds have been utilized for operational activities as well.

In order to determine the anticipated noise impacts created from well construction equipment, reference noise measurements were previously taken of various pieces of equipment during construction of OCWD's Monitoring Well SAR-11 in 2011.

Construction Impacts

The Project's construction activities would be segmented into four phases, which

have been analyzed separately below:

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

Phase 1 construction activities would include installation of the temporary noise barrier, protective fencing, and utility clearance of the well site. Construction activities for Phase 1 will be limited to during the allowable construction times detailed in Section 13-279(b) of the Municipal Code. As such, only the daytime noise impacts were analyzed. Table 13, *Phase 1 Noise Panel and Protective Fencing Installation/Utility Clearance Noise Levels*, shows that Phase 1 construction activities would create noise levels as high as 63.8 dBA Leq at the sports field adjacent to the east side of the well site. Table 13 shows that none of the sensitive receptors would exceed the daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in Section 13-280(a) of the City's Municipal Code and implementation of the proposed temporary noise barrier, noise impacts from Phase 1 construction activities would be less than significant.

Table 13 Phase 1 Noise Panel and Protective Fencing Installation/Utility Clearance Noise Levels

Receiver[1]	Description	Construction Noise Level[2] (dBA Leq)	Noise Standard[3] (dBA Leq)	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	56.2	80	No
2	South Side of Building 6 at Pine Creek Village	55.8	80	No
3	OCC Sports Field East of Well Site	63.8	80	No
4	Northwest Corner of Athletics Center Building	50.2	80	No

Notes:
[1] Receiver locations shown in Figure 6.
[2] The calculated construction noise level is based on implementation of Project Design Feature 1 (Installation of Sound Wall) prior to utility clearance activities.
[3] All construction activities during Phase 1 would adhere to the limitation in construction hours provided in Section 13-280(a) of the Municipal Code. The 80 dBA threshold was obtained from the FTA construction noise criteria provided above in Table F.

Source: Vista Environmental, 2018

Phase 2: Well Drilling and Construction

Phase 2 construction activities would include drilling and construction of the monitoring well. The proposed monitoring well would be drilled by using flooded reverse circulation rotary drilling method. To reduce the risk of a borehole collapse during the drilling and well construction phase, a 24-hour operation of activities will be required. Since, some construction activities would occur outside of the times when construction noise is exempt as detailed in Section 13.279(b) of the Municipal Code, Phase 2 construction activities would be required to adhere to the daytime and nighttime exterior noise standards detailed in Section 13-280(a) of the Municipal Code. As such both the daytime and nighttime noise impacts were analyzed. Table 14, *Phase 2 Well Drilling and Construction Noise Levels*, shows that the Phase 2 well drilling and construction activities would create noise levels as high as 49.5 dBA Leq at the homes to the north of the well site and as high as 53.7 dBA at the nearest school building to the south. Table 14 shows that both residential

receivers would be within the daytime noise standard of 55 dBA and the nighttime noise standard of 50 dBA as detailed in Section 13-280(a) of the Municipal Code. Although the sports field on the east side of the well site would exceed the daytime and nighttime noise standards and the nearest school building would exceed the nighttime noise standard, Section 13-282(a) of the Municipal Code states that the noise standard in Section 13-280(a) of the Municipal Code is only required to be met while the school is in use. Since the sports field on the east side does not have lights, it is not anticipated to be used during the hours when construction is not exempt of 7:00 p.m. to 7:00 a.m. and the nearest school building is not anticipated to be used while the nighttime noise standard is applicable of 11:00 p.m. to 7:00 a.m. During the daytime hours, the Project would not result in an exceedance of the 80-dBA daytime construction threshold at any sensitive receptor location. As such, no exceedance in noise standards during the temporary well drilling and construction activities are anticipated to occur at the receivers located on school grounds. Therefore, with implementation of the proposed temporary noise barrier, noise impacts from Phase 2 well drilling and construction activities would be less than significant.

Table 14 Phase 2 Well Drilling and Construction Noise Levels

		Daytime Construction Noise Levels (dBA Leq)			Nighttime Construction Noise Levels (dBA Leq)		
Receiver[1]	Description	Noise Level	Daytime Standard[2]	Exceed Standard?	Noise Level	Nighttime Standard[3]	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	49.5	55	No	49.5	50	No
2	South Side of Building 6 at Pine Creek Village	49.5	55	No	49.5	50	No
3	OCC Sports Field East of Well Site	60.5	--[4]	--	60.5	--[4]	--
4	Northwest Corner of Athletics Center Building	53.7	55	No	53.7	--[5]	--

Notes:
[1] Receiver locations shown in Figure 6.
[2] The Daytime (7:00 a.m. to 11:00 p.m.) standard is 55 dBA for the nearby residential as detailed in Section 13-280(a) of the Municipal Code.
[3] The Nighttime (11:00 p.m. to 7:00 a.m.) standard is 50 dBA as detailed in Section 13-280(a) of the Municipal Code.
[4] Since the sports field on the east side of the well site does not have lights, the field is not anticipated to be used during the hours when construction activity is not exempt (7:00 p.m. to 7:00 a.m.).
[5] The Athletics Building located to the south of the well site is not anticipated to be used during the nighttime hours of 11:00 p.m. to 7:00 a.m..

Source: Vista Environmental, 2018

Phase 3: Well Development

Phase 3 construction activities would include the development of the monitoring well. Construction activities for Phase 3 would be conducted in the daytime only and would be limited to the allowable construction times detailed in Section 13-279(b) of the Municipal Code. As such, only the daytime noise impacts were analyzed. The calculated noise levels provided in Table 15, *Phase 3 Well Development Noise Levels*, shows that Phase 3 construction activities would create noise levels as high as 53.9 dBA Leq at the sports field adjacent to the east side of the well site. Table 15 shows that none of the Receivers would exceed the FTA's daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in

Section 13-280(a) of the City's Municipal Code and implementation of the proposed sound attenuation wall, noise impacts from Phase 3 construction activities would be less than significant.

Table 15 Phase 3 Well Development Noise Levels

Receiver[1]	Description	Construction Noise Level[2] (dBA Leq)	Noise Standard[3] (dBA Leq)	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	46.8	80	No
2	South Side of Building 6 at Pine Creek Village	46.5	80	No
3	OCC Sports Field East of Well Site	53.9	80	No
4	Northwest Corner of Athletics Center Building	46.8	80	No

Notes:
[1] Receiver locations shown in Figure 6.
[2] The calculated construction noise level is based on implementation of Project Design Feature 1 (Installation of Sound Wall) prior to utility clearance activities.
[3] All construction activities during Phase 1 would adhere to the limitation in construction hours provided in Section 13-280(a) of the Municipal Code. The 80 dBA threshold was obtained from the FTA construction noise criteria provided above in Table F.
Source: SoundPlan Version 8.0.

Source: Vista Environmental, 2018

Phase 4: Site Cleanup and Traffic-Rated Vault Installation

Phase 4 involves site cleanup and installation of the below ground traffic-rated well vault. Construction activities for Phase 4 would be limited to the daytime hours and would not involve any nighttime construction activities. As such, only the daytime noise impacts were analyzed. The noise levels created during Phase 4 is shown in Table 16, *Phase 4 Site Cleanup and Vault Installation Noise Levels*, and shows that Phase 4 construction activities would create noise levels as high as 65.1 dBA Leq at the sports field adjacent to the east side of the well site. Table 16 shows that none of the Receivers would exceed the FTA's daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in Section 13-280(a) of the City's Municipal Code, noise impacts from Phase 4 construction activities would be less than significant.

Table 16 Phase 4 Site Cleanup and Vault Installation Noise Levels

Receiver[1]	Description	Construction Noise Level (dBA Leq)	Noise Standard[2] (dBA Leq)	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	48.2	80	No
2	South Side of Building 6 at Pine Creek Village	50.1	80	No
3	OCC Sports Field East of Well Site	65.1	80	No
4	Northwest Corner of Athletics Center Building	46.0	80	No

Notes:
[1] Receiver locations shown in Figure 6.
[2] All construction activities during Phase 1 would adhere to the limitation in construction hours provided in Section 13-280(a) of the Municipal Code. The 80 dBA threshold was obtained from the FTA construction noise criteria provided above in Table F.
Source: SoundPlan Version 8.0.

Source: Vista Environmental, 2018

Monitoring Well Operational Noise Impacts

Monitoring Well Sampling Activities

The operational monitoring well sampling activities would be limited to the daytime hours and would not involve any nighttime construction activities. As such, only the daytime noise impacts were analyzed. The noise levels created during the monitoring well sampling activities are shown in Table 17, *Monitoring Well Sampling Noise Levels* which shows that monitoring well sampling activities would create noise levels as high as 56.5 dBA Leq at the sports field adjacent to the east side of the well site. Table 17 demonstrates that none of the receivers would exceed the FTA's daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in Section 13-280(a) of the City's Municipal Code, noise impacts from the operational monitoring well sampling activities would be less than significant.

Table 17 Monitoring Well Sampling Noise Levels

Receiver[1]	Description	Noise Level (dBA Leq)	Noise Standard[2] (dBA Leq)	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	39.3	80	No
2	South Side of Building 6 at Pine Creek Village	40.1	80	No
3	OCC Sports Field East of Well Site	56.5	80	No
4	Northwest Corner of Athletics Center Building	39.8	80	No

Notes:
[1] Receiver locations shown in Figure 6.
[2] All construction activities during Phase 1 would adhere to the limitation in construction hours provided in Section 13-280(a) of the Municipal Code. The 80 dBA threshold was obtained from the FTA construction noise criteria provided above in Table F.
Source: SoundPlan Version 8.0.

Source: Vista Environmental, 2018

Monitoring Well Redevelopment Activities

The operational monitor well redevelopment activities would be limited to the daytime hours and would not involve any nighttime construction activities. As such, only the daytime noise impacts were analyzed. The noise levels created during the monitor well redevelopment activities are shown in Table 18, *Monitoring Well Redevelopment Noise Levels*, which demonstrates that monitor well redevelopment activities would create temporary noise levels as high as 72.0 dBA Leq at the sports field adjacent to the east side of the well site. Table R shows that none of the receivers would exceed the FTA's daytime construction noise standard of 80 dBA Leq. Through adherence to the limitations of allowable construction times provided in Section 13-280(a) of the City's Municipal Code, noise impacts from the operational monitoring well redevelopment activities would be less than significant.

Table 18 Monitoring Well Redevelopment Noise Levels

Receiver[1]	Description	Noise Level (dBA Leq)	Noise Standard[2] (dBA Leq)	Exceed Standard?
1	South Side of Building 5 at Pine Creek Village	56.3	80	No
2	South Side of Building 6 at Pine Creek Village	57.6	80	No
3	OCC Sports Field East of Well Site	72.0	80	No
4	Northwest Corner of Athletics Center Building	52.0	80	No

Notes:
[1] Receiver locations shown in Figure 6.
[2] All construction activities during Phase 1 would adhere to the limitation in construction hours provided in Section 13-280(a) of th Municipal Code. The 80 dBA threshold was obtained from the FTA construction noise criteria provided above in Table F.

Source: Vista Environmental, 2018

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 nearest offsite sensitive receptors to the project site consist of people at the OCC athletic fields that are located adjacent to the east side of the proposed well site, however vibration impacts are not typically felt on sports fields since vibration impacts are normally only felt by persons that are sitting or lying down. As such, the nearest vibration-sensitive receptors are the multi-family residential uses located as near as 390 feet to the north.

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. The highest vibration level that would be generated by the construction equipment that would be used at the site has been estimated to generate 0.076 inch per second PPV at 25 feet. Based on typical propagation rates, the vibration level at the nearest vibration-sensitive offsite receptor (390 feet) would be 0.004 inch per second PPV. The vibration level at the nearest vibration-sensitive offsite receptor would be below the 0.25 inch per second PPV threshold detailed above. Therefore, a less than significant vibration impact would occur during construction and operation of the proposed Project.

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 2.2 miles southeast of the Project site. The proposed Project consists of the development and operation of a monitoring well, which will 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 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 at Orange Coast College 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 at Orange Coast College 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 Orange Coast College or any other nearby schools. No impact would occur.

No Impact: Parks. The Proposed Project would be located within a parking lot and would be operated and maintained by OCWD. The Project would not increase the demand for parks over the current level of demand that occurs at Orange Coast College and would not require the construction of any new governmental facilities. No impact would occur.

No Impact: Other Public Facilities. The Proposed Project would be located within a parking lot and would be operated and maintained by OCWD. The Project would not increase the demand for libraries, hospitals, or any other public facilities over the current level of demand that occurs at Orange Coast. No impact would occur.

4.16 Recreation

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

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

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

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

4.17 Transportation/Traffic

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

Less Than Significant: The proposed Project would occur within a paved parking area in the recycling center at Orange Coast College. No portion of the Project site would occur within public roadways. The construction of the Project would generate vehicular trips such as those associated with construction worker arrival/departure, deliveries, and export of cuttings. However, due to the limit scale of the Project, the number of vehicular trips anticipated during the construction period would be nominal in relation to the capacity of the nearby roadway system and would therefore not result in a substantial contribution of vehicular trips. Moreover, the construction would be temporary in duration and the Project would only generate occasional vehicular trips during the operation of the monitoring well. The proposed Project would not be located on a site that would affect transit, bicycle or pedestrian facilities. Therefore, 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 monitoring g well Project, which would generate nominal temporary volumes of vehicular trips during construction and only occasional single vehicle trips during operation, the OCWD as Lead Agency has determined that the use of a qualitative analysis of vehicle miles traveled (VMT) in accordance with CEQA Guidelines Section 15064.3 (b) (3) is appropriate. During construction, it is anticipated that contractor vehicles, as well as deliveries and cutting removals would utilize routes that begin and end within Orange County, with one-way trip lengths likely to be approximately 10 miles or less. In some instances, deliveries may require longer trip lengths. However, because of the limited scale of the Project, the proposed Project's traffic volumes would minor in comparison to regional traffic generation. The Project would occur in an area that is supported by high-quality transit corridors, including Adams Avenue, Harbor Boulevard, and Fairview Boulevard. 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 Project would be constructed in a parking lot within the recycling center at Orange Coast College. Upon completion of the Project, the parking lot would be restored to operate per the existing conditions at the site. The Project does not include anyway roadway improvements or other components that would result in a roadway hazard. Accordingly, impacts would be less than significant.

D. Would the project Result in inadequate emergency access?

Less Than Significant: The Project is located in a parking lot within Orange Coast College. The Project would affect any of the internal roadways within Orange Coast College that could be used to provide emergency access. Additionally, the project would not affect any public roadways that provide emergency access. 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 with the Incorporation of Mitigation: The analysis of potential impacts to tribal resources included; Tribal Consultation pursuant to AB 52 and coordination with California Native American Heritage Commission.

AB 52 Tribal Consultations

On October 29, 2018 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. Of these three tribes, only the Gabrieleno Band of Mission Indians-Kizh Nation requested a formal consultation.

A consultation was conducted with the Gabrieleno Band of Mission Indians-Kizh Nation on February 19, 2019. During this consultation, the Gabrieleno Band of Mission Indians-Kizh Nation representatives indicated that no specific Tribal Cultural Resources are known to occur within the Project site but expressed concern that a potentially significant impact could occur if undiscovered

resources are encountered during well construction that relate to known Tribal Cultural Resources that have been identified in other locations within the City of Costa Mesa. Accordingly, mitigation measure MM TCR-1 has been identified. With the incorporation of MM TCR-1, impacts would be less than significant.

California Native American Heritage Commission Sacred Lands Search

OCWD requested a Native American Sacred Lands Record Search be conducted by the California Native American Heritage Commission to determine the potential for Native American Sacred Lands to be present within the project area. The Native American Heritage Commission identified that there were no known Native American Sacred Lands within the project area.

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 with the Incorporation of Mitigation: As described above, the Gabrieleño Band of Mission Indians-Kizh Nation representatives indicated that no specific Tribal Cultural Resources are known to occur within the Project site but expressed concern that a potentially significant impact could occur if undiscovered resources are encountered during well construction that relate to known Tribal Cultural Resources located within the City of Costa Mesa. Accordingly, mitigation measure MM TCR-1 has been identified. With the incorporation of MM TCR-1, impacts would be less than significant.

Mitigation Measure

MM-TCR-1: Prior to the commencement of well drilling activities, the OCWD Project Manager shall provide a written notice to the Native American representatives from the Gabrieleño Band of Mission Indians – Kizh Nation Tribe indicating the date and time of the commencement of well drilling. The representatives from the Gabrieleño Band of Mission Indians – Kizh Nation Tribe ("tribal representative") shall be provided reasonable access to the Project site in a manner that does not interfere with or frustrate well drilling activities. Tribal representatives, at their own expense, and in a manner that does not interfere with drilling activities, shall be allowed to monitor subsurface ground-disturbing construction activities to a depth of forty (40) feet below the existing ground surface. The monitoring may consist of either direct observation of the drilling activities or the examination of excavated soils prior to disposal for evidence of cultural resources. If any cultural resources are identified during the monitoring and evidence is presented that the discovery proves to be potentially significant under CEQA, as determined by OCWD's consulting Project Archaeologist, additional measures such as data recovery excavation, avoidance of the area of the find, documentation, testing, data recovery, reburial, archival review and/or transfer to the appropriate museum or educational institution, or other appropriate actions may be warranted

as recommended by OCWD's consulting Project Archeologist in consultation with the tribal representative.

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: No existing utilities occur within the area that would be affected by the proposed Project. The proposed Project would not affect any existing utility facilities or otherwise require the relocation or construction of utilities beyond the proposed monitoring well. Accordingly, impacts would be less than significant.

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

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

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

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

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

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

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

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

accordance with local, state and federal laws. Therefore, impacts associated with solid waste would be less than significant.

4.1 Wildfire

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

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

Less Than Significant: The construction and operation of the proposed monitoring well would occur within an existing parking lot. The Project would not affect any public roadways or any of the internal roadways within the Orange Coast College campus that could be used for emergency response or evacuation. Therefore, impacts to emergency response or evacuation plan 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 located within a parking lot in a highly urbanized portion of the City of Costa Mesa. 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 located within a parking lot in a highly urbanized portion of the City of Costa Mesa. 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 monitoring well Project would be located below the ground surface within a relatively flat existing parking lot. The Project would not introduce any new structures. Accordingly, the proposed Project would not have the potential affect drainage changes that would adversely affect other properties.

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 plans, wildlife or habitat. The Proposed Project would not result in any impacts to any known cultural resources and the potential to encounter unknown cultural 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 OF 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 or paleontological resources are discovered, all work within the vicinity of the find shall immediately halt until a Qualified Cultural Resources Consultant can assess the significance of the materials. A resumption of ground disturbing activities shall only be permitted once the Qualified Archeological Consultant has concluded their assessment of the resources. The Qualified Cultural Resources shall prepare a letter report that documents the find and implements appropriate measures for the treatment and/or deposition of the materials such as deposition in an institution for permanent curation or transfer to an affiliated Native American tribe based on the nature of the find.

MM-TCR-1: Prior to the commencement of well drilling activities, the OCWD Project Manager shall provide a written notice to the Native American representatives from the Gabrieleño Band of Mission Indians – Kizh Nation Tribe indicating the date and time of the commencement of well drilling. The representatives from the Gabrieleño Band of Mission Indians – Kizh Nation Tribe ("tribal representative") shall be provided reasonable access to the Project site in a manner that does not interfere with or frustrate well drilling activities. Tribal representatives, at their own expense, and in a manner that does not interfere with drilling activities, shall be allowed to monitor subsurface ground-disturbing construction activities to a depth of forty (40) feet below the existing ground surface. The monitoring may consist of either direct observation of the drilling activities or the examination of excavated soils prior to disposal for evidence of cultural resources. If any cultural resources are identified during the monitoring and evidence is presented that the discovery proves to be potentially significant under CEQA, as determined by OCWD's consulting Project Archaeologist, additional measures such as data recovery excavation, avoidance of the area of the find, documentation, testing, data recovery, reburial, archival review and/or transfer to the appropriate museum or educational institution, or other appropriate actions may be warranted as recommended by OCWD's consulting Project Archeologist in consultation with the tribal representative.

SECTION 6.0 REFERENCES

California Farmland Mapping Monitoring Program website, accessed February 15, 2019.

City of Costa Mesa, City of Costa Mesa General Plan. 2015.

City of Costa Mesa, Costa Mesa General Plan Final Environmental Impact Report. June 26, 2016.

Envirostor Database (https://www.envirostor.dtsc.ca.gov). Accessed February 14, 2019.

Governor's Office of Planning and Research, California Environmental Quality Act, State CEQA Guidelines. 2018.

Natural History Museum of Los Angeles county, Paleontological Resources for the proposed OCWD-M43R Monitoring Well Replacement Project. November 9, 2018.

Orange County Water District Groundwater Management Plan. 2015.

South Central Coastal Information Center, Record Search Results for the OCWD-M43R Monitoring Well Replacement Project. November, 2018.

Vista Environmental, Air Quality and Greenhouse Gas Emissions Impact Analysis, Vista Environmental. November 2018

Vista Environmental, Noise Impact Analysis. November 2018.